

# A Complete Bibliography of Publications in *Frontiers in Marine Science* (2010–2019)

Nelson H. F. Beebe  
University of Utah  
Department of Mathematics, 110 LCB  
155 S 1400 E RM 233  
Salt Lake City, UT 84112-0090  
USA

Tel: +1 801 581 5254

FAX: +1 801 581 4148

E-mail: [beebe@math.utah.edu](mailto:beebe@math.utah.edu), [beebe@acm.org](mailto:beebe@acm.org),  
[beebe@computer.org](mailto:beebe@computer.org) (Internet)

WWW URL: <http://www.math.utah.edu/~beebe/>

09 June 2023

Version 1.04

## Title word cross-reference

< 150 [104]. > 400 [1029]. <sup>1</sup> [1161, 1103]. <sup>13</sup> [1308, 1229]. <sup>15</sup>  
[937, 1308, 1229, 1051]. <sup>18</sup> [1229, 1772]. <sup>2-</sup> [334]. <sup>67</sup> [281]. <sub>12</sub> [1978]. <sub>2</sub>  
[1529, 1543, 1625, 118, 1039, 1020, 982, 1259, 937, 654, 135, 1432, 886, 47, 314,  
2079, 1468, 1241, 2114, 1144, 1036, 1388, 1180, 572, 1689, 928, 768, 842, 711,  
635, 1047, 1495, 718, 929, 793, 1427, 440, 757, 1387, 1134, 1152, 126, 1281,  
302, 1692, 1217, 1604, 2162, 1051, 1866]. <sub>3</sub> [396]. <sub>4</sub> [396].  $\beta$  [2150].  $\delta$   
[1308, 1229, 1772].  $\Delta$ 6 [2145].  $\gamma$  [705, 17].  $\mu$  [1582].  $\sigma$  [1212].

**-Binding** [447]. **-Desaturase** [2145]. **-Exchange** [1387]. **-Proteobacteria**  
[705, 17]. **-Stressed** [711]. **-Type** [2150].

**1** [219, 1107]. **1-Hydroxypyrene** [416]. **11** [1182]. **18S** [1685]. **1953** [161].  
**19th** [1449].

**2** [1108, 2061, 1673]. **2.0** [575, 2211]. **20-Year** [862]. **2000** [1175]. **2011** [1467]. **2013** [183, 161]. **2014** [1730, 1501]. **2016** [714]. **21st** [1625, 2197]. **29°S** [1735].

**30-Year** [343]. **31** [161]. **33°** [1354]. **36°S** [1110]. **37°S** [1354]. **3D** [1800, 628, 1564, 546].

**4-Month** [988].

**5** [1166, 161].

**8** [2061, 682, 819]. **8-Derived** [682]. **8-Hydroxyquinoline** [447].

**a.k.a** [1928]. **aalge** [994]. **abalone** [20]. **Abatement** [1370]. **Abating** [1591]. **Abiogenic** [1101]. **Abiotic** [565, 999, 854, 2101]. **Able** [1238]. **Absence** [1350, 85]. **Absorbing** [1786]. **Absorption** [582, 513, 211, 855, 799, 787, 1466]. **Abstracts** [662]. **Abundance** [1939, 1680, 962, 208, 1382, 1582, 1139, 1297, 246, 1357, 1778, 1667, 823, 216, 1838, 140, 42]. **Abundances** [220]. **Abundant** [1848]. **Abyssal** [900, 2068, 990, 392]. **Acanthomorpha** [51]. **Acanthostrongylophora** [52]. **Acartia** [1087]. **Accelerate** [1400, 1396]. **Accelerates** [1872, 67]. **Acceleration** [327]. **Access** [1487, 1037, 1984]. **Accessible** [341]. **Acclimation** [737, 1121, 940, 1299, 1365, 1285]. **acclimatization** [84]. **according** [101]. **Account** [324]. **Accountability** [563]. **Accounting** [2020]. **Accumulation** [921, 516, 2071, 1422, 1347, 1563, 83]. **Accuracy** [2108, 1785]. **Accurate** [1742]. **Accurately** [1769]. **Achieve** [479, 1277, 394, 1634]. **Achille** [1302]. **Acid** [1360, 335, 611]. **Acidic** [1832, 622]. **Acidification** [1176, 261, 528, 1417, 1693, 593, 214, 716, 204, 1822, 1081, 1628, 1383, 565, 1788, 483, 1017, 188, 461, 650, 719, 1618, 811, 295, 1243, 603, 978, 1310, 718, 1300, 250, 995, 1440, 1117, 2127, 1141, 2116, 2099, 1071, 577, 1261, 1803, 413, 1559, 1604, 254, 801, 621, 761, 1256, 105, 60, 4, 76]. **Acidification-Induced** [1071]. **Acidifying** [1302]. **Acids** [1997, 236, 859, 1048, 1454, 2145, 168]. **Acoustic** [1722, 1971, 1201, 1534, 715, 689, 95]. **Acoustical** [1014]. **Acoustically** [1891]. **Acquisition** [1088, 594, 1839]. **Acropora** [1988, 280, 1321, 1504, 2176, 866, 462, 1327, 891, 972, 10, 621, 1206]. **acroporae** [1988]. **Across** [1329, 846, 1764, 2066, 1351, 1248, 1430, 1724, 2080, 1999, 692, 1649, 1036, 1452, 1436, 1757, 1475, 1479, 1189, 426, 886, 850, 1046, 804, 334, 851, 530, 25, 265, 729, 857, 540, 772, 924, 361, 28, 623, 499, 872, 504]. **actinomycete** [52]. **Actinopterygii** [1156]. **Action** [1822, 782]. **Actionable** [1822]. **Actions** [204, 1397, 148]. **Active** [1785, 777, 2055, 2179, 1999, 2204, 515, 833, 1318, 95, 46, 58]. **Activism** [430]. **Activists** [430]. **Activities** [1626, 692, 1631, 271, 883, 212, 30]. **Activity** [1536, 742, 330, 1431, 1241, 944, 1927, 372, 1282, 884, 418, 258, 331, 1479, 500,

2164, 1600, 2056, 71, 22]. **acuta** [1316, 1828]. **Acute** [1980, 2119, 76, 1060].  
**adaptability** [145]. **Adaptation** [1437, 592, 1121, 2184, 603, 604, 2083, 2036, 1870, 272, 2125]. **Adapting** [2158, 1755]. **Adaptive** [487, 397, 1546, 1715, 328, 2181, 468, 100].  
**Addendum** [1670]. **Adding** [1523]. **Addition** [1090, 71]. **Additive** [1209, 939, 1817]. **Additives** [1669]. **Address** [1799, 204, 1268, 1362, 206, 1630]. **Addressed** [376]. **Addressing** [1340, 160, 562]. **Ad  lie** [1195]. **Adenosine** [1166].  
**Adenosine-5'-Triphosphate** [1166]. **Adequacy** [1881]. **Adhesion** [2029, 1300]. **Adjacent** [836, 1958, 1604, 1735, 2198, 1979, 115]. **Adjusting** [1769]. **Admiralty** [2101]. **Adolescent** [1191]. **Adopted** [2169]. **Adriatic** [1762, 826, 1147, 649, 570, 913, 1398, 2030, 1831]. **Adsorbed** [1030, 1074].  
**Adult** [1954, 589, 1202, 99]. **aduncus** [689, 216]. **Advance** [376, 1913].  
**Advancement** [776, 950]. **Advances** [558, 648, 1634, 1477, 1509, 1883].  
**Advancing** [1513, 1555, 1557, 811, 1614, 1142, 2020, 1983]. **Advantages** [1143, 1253]. **Advection** [402, 2047, 1923]. **Advective** [2175]. **Advice** [950, 701]. **Advisory** [1691]. **Advocacy** [430]. **AEFW** [1988]. **Aegean** [2111, 356, 683, 837, 2062, 534]. **Aeolian** [605]. **Aerial** [478, 856, 1368, 1931, 1247]. **Aeromonas** [332]. **Aerosol** [1590]. **Aerosols** [372, 427, 754, 876, 482, 549]. **Aerostat** [1410]. **aeruginosa** [2036]. **Affect** [201, 1178, 550, 1017, 1705, 1560]. **Affected** [335, 358, 1960, 1032, 82].  
**Affecting** [2141, 1948, 353]. **Affects** [2093, 1860, 248, 1184, 544, 12].  
**Affinity** [229, 447]. **Africa** [880, 365, 542, 390]. **After** [1236, 1321, 1531, 1159, 2136, 1306, 1281, 2135, 968, 890, 738, 990, 482, 549].  
**Aftermath** [212]. **Against** [2209, 1731]. **Age** [2025, 1449, 26]. **Agent** [2196, 1042]. **Agent-Based** [2196]. **Agents** [348]. **Aggregate** [1098].  
**Aggregates** [1432, 920]. **Aggregating** [755, 1951]. **Aggregation** [845, 2139, 57]. **Aggregations** [1491, 1631]. **Aging** [2025]. **Agreement** [1984]. **Agricultural** [1207, 1532]. **Aid** [247, 1262, 1068]. **Aim** [1126, 984].  
**Aiptasia** [435]. **Air** [1884, 1895, 1070, 1732, 1047, 929, 1387, 1886].  
**Air-Exposed** [929]. **Air-Sea** [1895, 1732, 1387]. **Air-Sea-Ice** [1886].  
**Airborne** [1014]. **Aircraft** [1133, 2031]. **Aires** [870]. **AIS** [2001]. **AK** [2173].  
**Akinete** [1805]. **Akumal** [2146]. **Al** [475]. **Alaska** [38, 1201, 809, 2172].  
**albacares** [1807]. **Albacore** [2083]. **Albatross** [1044, 169]. **Albatrosses** [904, 767]. **AlborEx** [531]. **Alcyonacea** [1652, 2172]. **Alexandrium** [1325, 1297, 176, 1352, 1422, 1464]. **Alga** [1088, 1618, 331, 1868]. **Algae** [1342, 704, 2050, 1540, 1172, 286, 800, 1574, 222, 1204, 1427, 1669, 2186, 2073, 179, 1549, 787, 1111]. **Algae-Derived** [286]. **Algae-Produced** [800]. **Algal** [1716, 1456, 1296, 1481, 1119, 1112, 1210, 1684, 1654, 1340, 1879, 1006, 1130, 839, 1316, 1928, 494, 1588, 1041, 757, 783, 1865, 1111]. **Algal-Bacterial** [1111]. **Algal-Gardening** [1879]. **algalicola** [1111]. **Algorithm** [632].  
**Algorithms** [618, 741, 643, 868, 875, 1825]. **Alkaline** [71]. **Alkalinity** [1604].  
**Alkane** [2036]. **All-Atlantic** [1893]. **Allelic** [1476]. **alleviation** [110]. **allies** [80]. **allocate** [66]. **Allocation** [1191]. **Allometric** [751]. **Allometry** [352].

**Allows** [791]. **ALOHA** [992, 1061, 1419, 849]. **Along**  
 [2141, 2022, 1876, 1417, 1496, 1612, 1234, 2103, 1841, 2192, 1682, 1464, 1950,  
 963, 1986, 1050, 1977, 189, 1613, 2047, 444, 513, 481, 902, 140, 460, 739, 109,  
 85, 879, 669, 568, 2210, 504]. **Alongshore** [1711]. **Also** [1851]. **Alter**  
 [1963, 932]. **Alteration** [1337]. **Altered** [1772, 652]. **Alternative**  
 [291, 1259, 2119, 1059, 349, 2006]. **Alternatives** [1201]. **Alteromonas** [325].  
**Alters** [1448, 1028, 540]. **Altimetry** [2166, 2046]. **Altiphotic** [1234].  
**amadelpha** [1868]. **Amazon**  
 [1073, 518, 768, 743, 568, 2210, 536, 1181, 885, 1274, 781, 768, 740].  
**Amazonian** [1423, 316]. **Ambient** [601]. **Ambitions** [753].  
**Amblyrhynchus** [971]. **Ameliorate** [2134]. **Amerasian** [155]. **America**  
 [1510, 365, 1822, 1340, 1616, 769, 1928, 862, 269]. **American**  
 [924, 1703, 2043, 1389, 282, 1559]. **Amino** [1048, 168]. **Aminophenyl** [1536].  
**Ammonia** [438]. **Ammonium** [1242, 699, 2103, 157]. **Amnesic** [1412].  
**Among** [181, 1221, 1546, 176, 728, 507, 698, 725, 168]. **amongst** [976, 374].  
**Amount** [2163]. **Amphibalanus** [373, 1300]. **Amphimedon** [429, 398, 817].  
**Amphipods** [1777]. **Amphiprion** [1011, 1215]. **Amphistegina** [1937].  
**Amphitrite** [373, 1300]. **Amplicons** [349]. **Amplified** [1381]. **Amplifies**  
 [2099]. **Amundsen** [508]. **Anaerobic** [458]. **analisis** [2009]. **Analyses**  
 [846, 1269, 1325, 1304, 1148, 421, 791, 306, 80]. **Analysis**  
 [1693, 2059, 1312, 458, 2177, 1044, 1654, 1102, 961, 525, 1360, 2113, 2011, 1997,  
 852, 327, 537, 128, 415, 391, 2136, 2010, 2181, 1246, 1160, 1000, 408, 1041,  
 1651, 2199, 294, 2104, 116, 2203, 1333, 456, 1688, 2100, 1789, 763, 139, 52, 696].  
**Analytic** [655]. **Analytic/Inversion** [1987]. **Analytical** [684, 503].  
**Analytics** [1820]. **Analyzed** [1161, 1103]. **Analyzer** [812, 745]. **Analyzers**  
 [928]. **Analyzing** [1529, 390]. **Anchored** [680]. **Anchovy** [765]. **Ancient**  
 [2154]. **Andaman** [320, 137]. **Andres** [1545, 2000]. **Anemone** [607, 1475].  
**Anemonefish** [1011, 1215]. **Animal** [712, 330, 1059, 1792, 817, 562, 952].  
**Animal-Borne** [1792]. **Animals** [856, 1368, 1040, 37]. **Annelida**  
 [80, 1942, 2214, 1043]. **Annotating** [575, 2211]. **Annotation** [417, 262].  
**Annual** [1680, 1655, 65, 693]. **Annular** [1387]. **Anomalies** [353, 898].  
**Anomalous** [1382]. **Anomaly** [866, 652, 1032]. **Anoplopoma** [1669].  
**Anoxia** [705, 388]. **Anoxic** [1161, 1103, 347, 1495, 515, 469, 1600]. **Answers**  
 [1993]. **Antagonistic** [413]. **Antarctic**  
 [1612, 846, 944, 461, 415, 1978, 800, 22, 1713, 1763]. **Antarctica**  
 [2118, 2101, 235, 2110, 676, 770, 707, 927]. **Antennae** [1288]. **Antennules**  
 [1288]. **Anthozoa** [1771]. **Anthropocene** [1224, 965, 774, 1457].  
**Anthropogenic** [1164, 1626, 1703, 2140, 1211, 315, 1348, 1813, 760, 282,  
 1381, 1457, 1157, 442, 883, 772, 938, 1128, 1641, 1604, 667, 83].  
**anthropogenically** [54, 147, 238]. **Anti** [348, 271, 22]. **Anti-Diabetes** [271].  
**Anti-Hyperglycemic** [348]. **Anti-Inflammatory** [271, 22]. **Antibacterial**  
 [271, 1323, 33]. **Antibiotic** [227]. **Antibiotics** [227]. **Anticancer** [1431, 271].  
**Anticyclonic** [997, 357]. **antifungal** [33]. **Antifungals** [11]. **antillarum**  
 [266]. **Antillean** [1247]. **Antioxidant** [187, 418, 271]. **Antipatharia**

[1652, 104]. **Any** [448, 663]. **AOPs** [939]. **Apalachicola** [1987]. **Apex** [1252]. **Aplacophora** [900]. **Aposymbiotic** [435, 621]. **Apparent** [436, 99]. **Apples** [772]. **Application** [466, 703, 1478, 919, 2095, 1762, 913, 1437, 1398, 2079, 1927, 1721, 648, 957, 1230, 2137, 562, 228, 1843, 2133, 2006, 1914, 378, 819, 2203, 244].

**Applications** [1859, 798, 1819, 1767, 286, 2064, 928, 597, 1802, 1568, 297, 2107, 2001, 86, 32].

**Applied** [611]. **Apply** [1940]. **Applying** [1754, 2031]. **Appraisal** [1829].

**Approach** [423, 223, 1826, 798, 2082, 733, 826, 1856, 1490, 1971, 2079, 1143, 659, 1228, 2055, 1564, 864, 1685, 578, 873, 1144, 1721, 427, 869, 347, 1409, 1682, 2003, 1930, 421, 2151, 1614, 579, 1955, 1579, 2030, 1815, 239, 598, 382, 1843, 685, 2006, 2040, 1141, 620, 1780, 959, 1502, 938, 1128, 1131, 702, 787, 611, 1466, 80, 144].

**Approaches** [291, 414, 807, 1383, 1372, 1670, 1307, 1634, 597, 780, 786, 1568, 1411, 1619, 260, 1508, 145]. **Aqaba** [706]. **Aquaculture** [1456, 507, 1096, 1037, 1349, 646, 1467, 629, 651, 1159, 1068, 277, 639, 1719, 682, 563, 896, 251, 585]. **Aquafeed** [1563]. **Aquaria** [749]. **Aquarium** [376, 1459]. **Aquatic** [841, 190, 365, 1122, 562, 2160, 1002, 1217, 623, 499, 585, 1379, 32]. **Arabian** [795, 738, 1373, 572, 1689, 85, 1069, 1671, 775]. **Arafura** [2182]. **Aragonite** [173, 1101, 1404, 1304, 1440, 1177, 875]. **Aragonites** [1404]. **arbitrary** [100]. **arborea** [1309]. **Arc** [1848, 985]. **Archaea** [2206]. **Archaeal** [743, 2019].

**Archipelago** [1444, 1545, 636, 760, 1011, 467, 963, 966, 784, 1662, 57, 637, 967, 1933, 964].

**Archipelagos** [1854]. **Archival** [956, 2007]. **Archived** [181]. **Archiving** [877]. **Arctic** [1263, 432, 279, 1797, 1125, 658, 1992, 47, 387, 1597, 1954, 1006, 1830, 822, 1720, 1649, 1943, 1130, 824, 75, 1285, 1730, 1916, 791, 102, 1194, 1710, 508, 393, 668, 1347, 1155, 109, 2002, 1019, 1152, 1933, 2037, 162, 48, 1647, 1223, 794, 652, 2047, 587, 1741, 667]. **Arctica** [1947]. **Area** [180, 1135, 832, 1867, 2148, 1681, 1582, 1139, 852, 1631, 1548, 1192, 1484, 954, 697, 1110, 1333, 1623, 1256, 1680, 1722, 802, 659, 1485, 1201, 1195]. **Area-** [1192]. **Area-Based** [954]. **Area-Independent** [1484]. **Areas** [2059, 425, 2094, 220, 659, 541, 2113, 1139, 2005, 1192, 465, 1199, 1659, 2120, 1095, 1338, 5, 642, 2094, 1028, 1154, 700, 96, 666, 735, 871]. **arena** [111].

**Arenosclera** [1012, 781]. **Argentina** [1325, 870]. **Argo** [1966, 1255, 1904, 1239]. **Argopecten** [2093, 483]. **Aromatic** [1578, 416, 2053]. **Array** [1722, 1904]. **Arrivals** [410]. **Art** [1096, 934, 1526, 1497]. **Artifacts** [1087]. **Artificial** [1219, 2138, 1921, 1001, 2133, 321, 2100, 106]. **Artisanal** [899, 1174].

**Ascension** [2126]. **Ascidians** [117, 2074]. **asexual** [57]. **Ash** [2056, 94].

**Asia** [975]. **Asian** [539, 1095, 28]. **asinina** [20]. **ASP** [1412]. **Aspects** [1149].

**Assays** [937]. **Assemblage** [590, 1701, 1830, 2178, 1735, 1979]. **Assemblages** [2153, 1706, 1343, 1867, 558, 742, 371, 356, 1234, 226, 719, 2129, 755, 1187, 508, 967, 840, 898, 1773, 1938, 1602, 1374, 938, 1128, 2198, 958, 1662, 130].

**Assemblies** [1080]. **Assembling** [837]. **Assembly** [1215, 417, 2183]. **Assess** [181, 1196, 2079, 1688]. **Assessed** [852, 416, 62]. **Assessing** [863, 27, 291, 394, 377, 524, 449, 414, 1459, 542, 1472, 541, 1209, 1534, 1010, 1273, 624, 328, 1192, 1377, 1336, 859, 1630, 1300, 467, 915, 676, 437, 1711, 1687, 272, 1602, 480, 244, 70, 98]. **Assessment** [466, 703, 1626, 1754, 558, 298, 157, 223, 1487, 1535, 1437, 283, 1971, 1764, 569, 1372, 1670, 1105, 1435, 1584, 1003, 1953, 1595, 2072, 1548, 1823, 2151, 1768, 2137, 1370, 1514, 1390, 2146, 269, 2044, 1740, 1919, 2122, 1958, 346, 1522, 1083, 759, 693, 1619, 361, 948, 299, 1062, 1825, 53, 125, 73, 124, 2075, 1699]. **Assessments** [389, 208, 640, 804, 386, 355, 421, 1651]. **Assimilation** [1882, 1558]. **Assisted** [1488]. **Associate** [749]. **Associated** [1565, 486, 1491, 280, 1366, 1575, 580, 1337, 595, 1809, 1104, 1234, 1384, 1583, 1925, 1295, 258, 1574, 752, 1204, 2146, 250, 974, 2039, 942, 891, 329, 435, 1666, 879, 669, 1049, 1572, 245, 775, 644, 1759, 1866, 1031, 1168, 130, 42]. **Association** [74, 1008, 1422]. **Associations** [343, 580]. **Assume** [395]. **Assumption** [252, 401]. **Assurance** [2169, 1828]. **Asteroidea** [1871]. **astreoides** [433]. **Asynchronous** [1347]. **at-Sea** [884]. **Atlantic** [491, 1590, 118, 1680, 1491, 463, 886, 21, 2175, 615, 1537, 2060, 453, 406, 735, 1947, 840, 1744, 1864, 2019, 183, 2128, 548, 74, 9, 1626, 1867, 1543, 1125, 728, 713, 956, 289, 1308, 1992, 2091, 1078, 844, 805, 2079, 1241, 1672, 1726, 1372, 1670, 1551, 720, 1140, 2043, 1999, 692, 1860, 1649, 1036, 1299, 364, 270, 339, 1243, 746, 1834, 35, 1310, 1506, 1187, 1099, 627, 324, 820, 2083, 2018, 1627, 1659, 446, 1390, 2071, 2165, 2213, 1753, 310, 1617, 393, 1347, 408, 402, 857, 925, 1416, 231, 1759, 1549, 577, 875, 2047]. **Atlantic** [1761, 943, 1058, 970, 1665, 83, 2009, 1893]. **atlantica** [1060]. **Atmosphere** [1490, 1900, 1922, 335, 1217, 112]. **Atmosphere-Ocean** [1922]. **Atmospheric** [423, 527, 494, 382, 329, 813, 556, 702, 612, 156]. **Atoll** [1804, 117, 1711, 1407]. **Atolls** [1976]. **ATP** [999]. **atra** [1960]. **Attachment** [373, 50]. **Attachments** [715]. **Attainment** [1353]. **attenuata** [454]. **Attenuation** [939, 1328]. **Attica** [534]. **Attitudes** [630, 1084]. **Attributed** [1342]. **Attributes** [1012]. **Augments** [2076]. **August** [1730, 183, 183]. **Aulacomya** [1960]. **aurata** [808]. **auratus** [1139, 1357]. **Austral** [944]. **Australia** [1216, 2022, 1876, 606, 586, 1629, 555, 1524, 369, 357, 2010, 836, 1076, 1815, 1000, 2073, 1402]. **Australian** [2099, 268, 1948, 1450, 1104, 1129, 1953, 1246, 1160, 1645, 1989]. **australis** [417]. **Authigenic** [1925, 2171]. **Authorities** [1296]. **Autochthonous** [313]. **Automated** [1971, 1688, 95]. **Automatic** [2001]. **Autonomous** [815, 1021, 812, 1571, 1503, 928, 1367, 1990, 2171, 1989, 1839, 1880]. **Autumn** [310]. **AUV** [1959]. **Availabilities** [593]. **Availability** [2144, 2093, 1146, 805, 1973, 814, 233, 770, 707, 1455, 179, 1049, 1380, 1305, 1808]. **Available** [1381]. **Avenue** [874]. **Averaging** [1192]. **Avicennia** [1135]. **Avoidance** [2055, 191, 1281]. **Avrainvillea** [1868]. **Awareness** [1271, 1138, 1984]. **Azooxanthellate** [1322]. **Azores** [180, 548, 742, 529, 580, 517, 844, 446, 406, 601, 404].

**B** [1205, 125, 1978, 319, 503]. **B-Vitamin** [1205]. **B-vitamins** [503]. **Ba** [1945]. **Back** [1848, 985]. **Back-Arc** [1848, 985]. **Backbarrier** [1086]. **Background** [1473]. **Backscatter** [517, 2058]. **Backscattering** [1077]. **Bacteria** [326, 1102, 350, 1389, 176, 415, 1365, 520, 2206, 1455, 1049, 186, 1131, 611, 113, 46, 58]. **Bacteria-Sized** [186]. **Bacterial** [1119, 1371, 658, 1090, 429, 398, 607, 313, 1036, 760, 1186, 639, 920, 752, 1194, 2045, 435, 749, 879, 669, 743, 2019, 1774, 1131, 482, 549, 432, 1309, 1111, 1288, 67]. **Bacteriocin** [330]. **Bacterioplankton** [1314, 1238, 1292, 833, 1162]. **Bacterium** [1205]. **bad** [111]. **Bahamas** [495, 883]. **bahamense** [1469]. **Bahia** [1493]. **Baia** [2148]. **Bait** [1122, 539]. **Baja** [1878, 1925, 1493, 642, 1384]. **Balaenoptera** [1535, 2193]. **Balance** [187, 518, 1299, 1473]. **Balancing** [942]. **Baleen** [1099, 559, 601]. **Ballan** [1608]. **Ballast** [269]. **Baltic** [2140, 1179, 2188, 188, 347, 2151, 1239, 510, 1522, 1699, 1132, 1586, 1519, 986, 1314, 1179, 1386, 1782, 519, 1946, 2212, 1957, 327, 656, 328, 1436, 421, 1153, 1413, 1292, 821, 897, 249, 1370, 1514, 1361, 1315, 1659, 1156, 1470, 1317, 2045, 1218, 1026, 1258, 2085, 701, 514, 645, 1544, 1147, 1162]. **Bamboo** [1840]. **Band** [2016]. **Banding** [1772]. **Bangladesh** [1760]. **Bank** [1545, 1804, 968, 1460]. **Banken** [2130]. **Banks** [1840, 2135, 83]. **Barcoding** [558, 846, 28]. **Barents** [2131, 1501, 1003, 295, 72, 1197]. **Barite** [1925]. **Barnacle** [373, 1809, 2029, 1300]. **Barotropic** [1565]. **Barrier** [1112, 308, 1748, 1554, 1214, 353, 714, 976, 2000, 1124, 259, 1539]. **Barriers** [1591, 1211]. **Basaltic** [981]. **Based** [298, 613, 439, 1207, 843, 846, 2007, 2082, 383, 487, 349, 525, 696, 1228, 1882, 518, 2158, 1435, 812, 1564, 1420, 322, 1595, 633, 835, 2112, 624, 1192, 971, 2196, 1614, 954, 634, 791, 927, 1630, 467, 2044, 1815, 609, 898, 911, 664, 1080, 1416, 2127, 2040, 1933, 620, 554, 1777, 1932, 306, 1910, 1899, 544, 1522, 1699, 2035, 1817, 2024, 2104, 361, 1508, 1825, 616, 53, 29, 153, 103, 174, 213]. **Baseline** [1548, 627, 282, 1449, 1673, 378]. **Baselines** [1163, 1093, 979, 2124]. **Basin** [570, 1959, 985, 1507, 1583, 510, 1848, 1478, 1125, 130, 907, 626, 155, 1153, 310, 1019, 2019, 306, 1619, 2056]. **Basin-Wide** [510]. **Basins** [249, 1942, 2214, 400]. **basis** [11]. **Basking** [956, 1094]. **Bathyal** [1854, 1378]. **Bathymetry** [1749]. **Bathymodiolus** [220]. **Bathypelagic** [742]. **Bathythermograph** [1917]. **BATS** [463]. **Bay** [888, 2048, 16, 483, 1584, 1657, 764, 288, 1653, 2061, 1328, 676, 619, 301, 2101, 1553, 480, 2065, 65, 1760, 1567, 1987, 2188, 1391, 852, 1172, 1001, 1801, 1403, 1055, 1132, 259, 1825, 1353, 610]. **Bayesian** [1259, 228]. **BBNJ** [1984]. **Be** [1577, 438, 506, 376, 1534, 98]. **Beach** [1472, 1114, 1429, 1306, 1622, 128]. **Beaches** [1164, 1424]. **Beaked** [1446]. **Beam** [998]. **Bears** [1066]. **BEAT** [2025]. **Beaufort** [508]. **Become** [1402, 1145]. **Becoming** [178]. **Bed** [699, 1328]. **Bedrock** [1720]. **Beds** [255, 635, 1617, 40]. **Been** [1381]. **Before** [2115, 968]. **Beginning** [429]. **Behavior** [904, 1334, 1072, 1185, 982, 290, 1028, 246, 1388, 680, 2010, 1171, 1945, 2031, 455, 1394, 2173, 1739, 901, 166, 1250, 1252, 1623, 128]. **Behavioral**

[1754, 808]. **Behaviors** [1695, 1021, 709]. **Behind** [1848]. **Being** [890, 1697]. **Belize** [671]. **Below** [352, 597, 1394, 135]. **Below-Ground** [352, 135]. **Benchmarking** [298]. **Beneath** [1181, 2075]. **Benefit** [2083, 151]. **Benefits** [394, 1120, 1917, 1810, 465, 701, 144]. **Bengal** [1760, 2061]. **Benguela** [396, 1846, 412]. **Benthic** [2153, 558, 2126, 649, 443, 921, 343, 1219, 1531, 1078, 1163, 521, 1937, 1337, 881, 2148, 1616, 1954, 949, 1467, 880, 1515, 1420, 1030, 450, 916, 519, 1418, 1452, 1148, 1483, 1357, 1336, 661, 1092, 2178, 2015, 967, 1771, 2002, 1666, 1929, 1541, 510, 2070, 964, 938, 1128, 1275, 2053, 2128, 115, 97, 130, 82, 54, 147, 238, 21, 39, 22, 88, 65, 126]. **Benthic-Epiphytic** [1418]. **Benthic-Pelagic** [521]. **Benthos** [795, 1548, 1403, 294, 124]. **Benzo** [1030]. **Bergy** [766]. **bergylta** [1608]. **Bering** [634, 1565, 1440]. **Bermuda** [528, 463, 383, 1724]. **Berre** [1222]. **beryllina** [1017]. **Best** [551, 1743, 1984, 911, 1970, 1399]. **Best-Practice** [1984]. **Beta** [894]. **Beta-Diversity** [894]. **Better** [1561, 303, 1993, 430, 2024, 123]. **Between** [1695, 2007, 1959, 1540, 1205, 1420, 1274, 1657, 1008, 1388, 1483, 1375, 1725, 1753, 1933, 1958, 1942, 2214, 1907, 1683, 1970, 1280, 1761, 1111, 74, 690, 377, 524, 946, 89, 961, 350, 159, 953, 684, 347, 364, 639, 839, 293, 583, 485, 925, 468]. **Beyond** [2059, 1717, 1381, 1984, 360, 264, 425, 785, 5]. **BGC** [1966]. **BGC-Argo** [1966]. **BHPs** [2192]. **Biases** [138]. **Biecheler** [1553]. **bifurcation** [28]. **Big** [952]. **Biggest** [246]. **Bight** [1860, 728, 2048, 1852, 2175, 2179, 1526]. **BIIGLE** [575, 2211]. **Bile** [416]. **Binding** [444, 230, 287, 511, 447, 1134, 374]. **Binning** [515]. **Bio** [389, 606, 632, 790, 2006, 2058, 709, 93]. **bio-construction** [93]. **Bio-economic** [2006]. **Bio-Geo-Optical** [632]. **Bio-Logging** [709]. **Bio-Optical** [606, 2058, 790]. **Bio-Sensors** [389]. **Bioaccumulation** [1585, 550]. **bioactive** [36]. **Bioactivity** [271]. **Bioavailability** [850, 1046, 668, 670, 29]. **Biochemistry** [2029]. **Biodiversity** [1331, 558, 298, 690, 443, 425, 1833, 2195, 449, 804, 1616, 349, 1073, 1434, 1854, 390, 386, 1943, 755, 1484, 253, 1577, 1142, 1126, 984, 666, 1581, 363, 1771, 1080, 2122, 1374, 409, 588, 53, 138, 30, 93, 5, 1984]. **Biodiversity-Based** [298]. **Bioenergetic** [1417]. **Bioengineering** [2087]. **Bioerosion** [801]. **Biofilm** [1294, 760, 1127]. **Biofilms** [1516, 1057]. **Biofuel** [1313]. **Biogenic** [1490, 1033]. **Biogeo** [939]. **Biogeo-Optical** [939]. **Biogeochemical** [951, 247, 255, 1612, 1078, 1987, 1557, 2179, 1430, 706, 460, 415, 1653, 1514, 2120, 1048, 1440, 1155, 1877, 281, 1258, 186, 1045, 504, 94]. **Biogeochemistry** [803, 490, 679, 934, 1420, 511, 950, 1525, 1690, 1983, 6]. **Biogeographic** [1343]. **Biogeographical** [1069]. **Biogeography** [1616, 1228, 359]. **Biologging** [1695, 847]. **Biological** [491, 2106, 1861, 264, 1481, 1284, 2066, 541, 1356, 1813, 286, 2097, 848, 1109, 331, 793, 1142, 1919, 1479, 1780, 1989, 361, 1798, 154, 94, 114, 124]. **Biology** [934, 811, 648, 1373, 1477, 1200, 1983, 87, 13]. **Biomarker** [1782]. **Biomarkers** [179, 1615, 158]. **Biomass** [728, 242, 1210, 1668, 968, 1512, 1830, 1093, 1144, 270, 1778, 1354, 605, 1995, 2187]. **Biomaterials** [1751]. **Biomedical** [1116]. **Biometrical** [914]. **Biomineralization**



[173, 1240, 1509]. **Biomolecular** [1041]. **Biomonitoring** [1782, 2074]. **Biophysical** [1185, 1211, 1745, 978, 1199, 2160, 1489]. **Biophysics** [1683]. **Biopreservation** [611]. **Bioprotective** [330]. **Bioreactivity** [1276]. **Bioreactor** [347]. **Biorefinery** [1497]. **Biosecurity** [1262, 1253]. **Biosilicification** [887]. **Biosphere** [1804, 1478, 1656, 776, 1234, 390, 1581, 1541]. **Biota** [1348, 1765, 207, 89, 133]. **biotechnological** [11]. **Biotechnology** [200, 1167, 64, 13, 2]. **Biotic** [565]. **Biotransformation** [761]. **Bioturbation** [324]. **Biphenyls** [2065]. **Biscay** [610]. **Bissau** [1010]. **Bit** [766]. **Bite** [994]. **Bivalve** [821, 218, 520, 1960, 1115, 378]. **bivalves** [90]. **Bivalvia** [688, 1597]. **Bjørnøy** [2130]. **Bjørnøy-Banken** [2130]. **Black** [1653, 249, 2016, 2030, 1938, 1147, 104, 582, 287, 765, 1230, 602, 1781, 717, 297, 829, 2123, 2203]. **Bleached** [931]. **Bleaching** [888, 2119, 1554, 866, 1214, 988, 2209, 714, 1671, 1731, 1380, 1318, 2125]. **Bleaching-Like** [1318]. **Blob** [1493]. **Block** [1369]. **Bloom** [1716, 2050, 986, 1946, 2212, 313, 1285, 897, 571, 1258, 1865, 231, 432, 1982]. **Bloom-Forming** [1285]. **Blooms** [1342, 1364, 1296, 1481, 730, 906, 257, 867, 1340, 457, 2103, 1928, 494, 1532, 790, 1077, 1381, 2073, 1188, 556, 1553, 1111]. **Blow** [1288]. **Blowout** [1320]. **Blue** [1797, 2126, 617, 2007, 1639, 1450, 1729, 885, 2072, 170, 2109, 1796, 1082, 1727, 1758, 1035, 492, 110]. **Bluefin** [1384, 310, 1864]. **Blueprints** [588]. **Boat** [1063, 899, 1569]. **body** [141]. **Bohol** [1200]. **Boiled** [1872]. **Bolidophyceae** [1301]. **Bonaire** [543, 448, 663, 2209, 1731]. **Bone** [473]. **Bones** [473]. **Book** [1173, 300, 1474, 2124]. **Boom** [1188]. **Boost** [1013]. **Boreogadus** [1647]. **Børgesen** [2115]. **Boring** [821, 90]. **Born** [98]. **Borne** [1792]. **Boron** [621]. **Boston** [1409]. **Bot** [1970]. **Both** [1024, 1434, 579, 83]. **Bothnian** [1255, 1239]. **Botrylloides** [2078]. **Botryocladia** [2115]. **Bottlenose** [2025, 689, 1247, 216, 312, 725, 1395]. **Bottom** [973, 1531, 1244, 1159, 820, 2096, 840, 510, 1855, 591, 1029]. **Bottom-Trawled** [1029]. **Bottom-Trawling** [840]. **Bottom-Up** [1855]. **Boundaries** [507]. **Boundary** [185, 1649, 1069, 2018, 1627, 1572, 1888, 1866, 1377]. **bowerbanki** [1794]. **BP** [1320]. **Brackish** [1420, 1344, 1107, 1108, 440, 1929]. **Brackish-Water** [1929]. **Branching** [573]. **Bransfield** [235]. **brasiliensis** [1012]. **Brazil** [1164, 2048, 885, 117, 1038, 1855, 1167, 1553, 1735]. **Brazilian** [728, 2179, 1352]. **Breaches** [1690]. **Break** [1860, 1494]. **Breakdown** [401]. **Breaking** [965]. **Bred** [589, 98]. **Breeding** [904, 946, 615, 2181, 2139, 368, 1195, 41]. **Brest** [1055]. **Breviolum** [2119]. **Bridge** [1571]. **Bridges** [1591]. **Bridging** [303, 377, 524, 2158, 485, 1683]. **Brine** [1610]. **Bring** [2040]. **Brings** [975]. **British** [1495, 469, 1600, 1976, 1052]. **Broad** [209, 1498, 1336, 46, 58, 1741]. **Broadkill** [1031]. **Brominated** [1782]. **Bromoperoxidase** [1536]. **Brooded** [982]. **Brooding** [1396]. **Broth** [831]. **Brown** [331]. **Browsing** [575, 2211]. **Bruun** [252]. **Bryde** [1264]. **Bubble** [792]. **Budget** [1968, 679, 1270].

**Budgets** [677, 183]. **Buenos** [870]. **Buffering** [1374]. **Buffers** [1107].  
**bugensis** [1544]. **Building**  
 [1566, 1822, 1704, 397, 960, 353, 1427, 1940, 2040, 1865, 2008, 924, 381, 139].  
**Built** [915, 1683]. **Bulgaria** [545]. **Bull** [1552]. **Bundles** [1874]. **Bunker**  
 [1198]. **Buoys** [2042]. **Burial** [460]. **Buried** [1181]. **Burmeister** [1151].  
**Burrow** [90]. **Bushmeat** [365]. **Business** [1977, 585]. **Bust** [1188].  
**Buzzards** [480]. **By-Catch** [983, 237]. **Bycatch**  
 [202, 2063, 755, 1853, 1831, 750, 160].

**C** [43, 1308, 1229, 467, 124]. **C-cycling** [124]. **C.** [1930]. **C/N** [467]. **Côte**  
 [380]. **ca** [1736, 1042]. **Cable** [520]. **Cables** [1889]. **Cadmium** [2011, 59].  
**Caging** [2151]. **Caicos** [274]. **Cairns** [847]. **Calanoid** [527]. **Calanus**  
 [236, 359]. **Calcareous** [173]. **calcareum** [1617]. **Calcein** [1257].  
**Calcification** [528, 1637, 198, 1654, 383, 1748, 1101, 1257, 923, 999, 987, 788,  
 1047, 1517, 998, 2039, 1283, 381, 2162, 122]. **Calcified** [573]. **Calcifiers**  
 [1310]. **Calcifying** [1693]. **Calcium** [1637, 902, 1134]. **Calcium-Binding**  
 [1134]. **CalCOFI** [2158]. **Calculations** [1637]. **Caledonian** [1020].  
**Calibration** [919, 786, 1466]. **California**  
 [1706, 230, 2195, 1852, 1384, 1493, 642, 613, 1417, 1878, 1382, 1546, 1583,  
 1925, 1961, 99, 2193, 1286, 1266, 1990, 1719, 1189]. **Call** [1260, 1195].  
**Callinectes** [1082]. **Calorific** [233]. **Camera** [1819]. **Campaign** [1271].  
**Campeche** [55]. **Can** [2092, 742, 1487, 204, 592, 270, 218, 1577, 430, 1449,  
 2186, 662, 1071, 438, 875, 2021, 1798, 123, 1520]. **Canada**  
 [1159, 508, 2043, 769, 905, 400, 1052]. **Canadian** [1647, 666, 1896]. **Canaria**  
 [1310]. **Canary** [997, 860]. **Candidate** [373, 1675, 276]. **Candidates** [1332].  
**Canopies** [1745, 2160, 1683, 1379]. **Canopy** [1980, 1476, 1391, 1263].  
**Canopy-Forming** [1980, 1263]. **Canopy-Mediated** [1476]. **Canthidermis**  
 [237]. **Canyon** [497, 2018, 1627, 1576, 1641]. **Canyons** [1840, 497, 634, 610].  
**Capabilities** [1209, 1644, 1913, 1323]. **Capability** [852]. **Capacity**  
 [1747, 1277, 1392, 1704, 1940, 468, 1250, 1688]. **Cape** [946, 453]. **Capital**  
 [2126, 368]. **capricorni** [308]. **CAPSTONE** [1944, 2208]. **Captive** [589, 98].  
**captive-bred** [98]. **Capture** [937, 202, 228, 1497, 149]. **carbide** [152].  
**Carbohydrate** [337]. **Carbon**  
 [951, 1797, 491, 2126, 528, 617, 728, 536, 1393, 2048, 1567, 352, 242, 1088, 1992,  
 197, 1450, 1238, 481, 505, 1490, 1655, 2079, 741, 594, 923, 1733, 1729, 188, 1610,  
 519, 1860, 1957, 773, 1405, 800, 1452, 1682, 1463, 2097, 926, 1653, 253, 324, 868,  
 929, 1013, 530, 316, 453, 974, 668, 1347, 2045, 857, 451, 338, 1933, 568, 556,  
 245, 1497, 2008, 526, 1559, 652, 499, 1741, 9, 40, 115, 110, 19, 65, 23, 150, 2210].  
**Carbon-** [1933]. **Carbon-Biomass** [242]. **Carbon-to-Chlorophyll** [773].  
**Carbonate**  
 [1329, 1628, 2080, 902, 974, 653, 677, 1588, 620, 1106, 2171, 413, 2162, 2130, 129].  
**carbonates** [42]. **Carcasses** [644, 124]. **Carcharhinus** [1414, 237].  
**carcharias** [99]. **Carcharodon** [99]. **Carding** [1502]. **cardiorespiratory**  
 [74]. **Care** [905]. **Caretta** [1382, 1737, 455, 1831]. **Cargo** [1965]. **Caribbean**

[1545, 1581, 2000, 1541, 1478, 1445, 1451, 1340, 1322, 1813, 1418, 1618, 462, 1506, 630, 195, 2209, 2015, 972, 266, 1731, 543]. **CARICOMP** [1451]. **Carnivorous** [1837]. **Carnobacterium** [330]. **Carolina** [1604]. **Carotenoids** [585]. **carponotatus** [1124]. **Carrageenans** [284]. **Cartagena** [2077]. **Case** [1423, 1716, 217, 742, 1561, 181, 2094, 1178, 826, 1437, 1790, 1450, 581, 542, 1555, 1472, 1809, 1287, 1104, 1435, 169, 555, 902, 391, 1001, 421, 971, 680, 1791, 2209, 1913, 2018, 1627, 981, 395, 1067, 1843, 664, 1874, 685, 1621, 1719, 1594, 437, 1691, 2123, 1731, 1606, 1402, 361, 1586, 701, 1665, 1825, 102]. **Case-Study** [1178, 1843]. **Caspian** [249]. **Cassiopeia** [757]. **Cast** [339]. **Catalina** [1445, 1545]. **Catalogue** [409]. **Catalyze** [428]. **Catch** [224, 892, 1844, 983, 1066, 1768, 237, 957, 1174, 608, 1407, 103]. **Catch-Per-Unit-Effort** [1407]. **Catches** [810, 354, 796, 957, 1596, 1197, 1501, 274]. **Catchment** [1532, 1338]. **catenatum** [1220]. **catenella** [1464]. **Cathodic** [152]. **Caught** [202, 672]. **Caulerpa** [65]. **Caused** [2132]. **Causes** [1504, 1576, 1738]. **Cave** [1123]. **Caveats** [460]. **Caves** [222]. **Cavity** [1466]. **CCI** [736]. **CCZ** [938, 1128]. **CDOM** [211, 334, 193]. **CDOM/FDOM** [334]. **Ce** [2054]. **CECs** [227]. **CEE** [1647]. **Cell** [1088, 458, 1056, 1041, 799, 456, 46, 58]. **Cells** [1148, 23]. **Cellular** [1417, 1276, 1030, 311, 1509, 66]. **Celtic** [936]. **Census** [383, 1588]. **Census-Based** [383]. **Center** [1092]. **centers** [27]. **Central** [1807, 728, 2011, 862, 1994, 99, 126, 472, 1135, 691, 1736, 2195, 1856, 2111, 1546, 1297, 1664, 347, 1354, 685, 2006, 2147, 2189, 1110, 1869, 1519]. **Centric** [191, 66]. **Centuries** [1554, 1214]. **century** [156, 1625, 2197, 1449, 687]. **CEPH** [1004]. **Cephalopod** [1004]. **Cephalopods** [1934, 1869]. **Ceriodaphnia** [1002]. **Certified** [2008]. **cervicornis** [1504, 2176, 462]. **Cestode** [1389]. **Cetacean** [613, 1151, 395, 1038]. **Cetaceans** [2025, 365, 1104, 1950, 404, 380]. **Cetorhinus** [956, 1094]. **Chain** [2036, 825, 149]. **Challenge** [1950, 1290, 2078, 687, 1573, 1749, 61, 2]. **Challenges** [2117, 1890, 1207, 394, 1096, 190, 1016, 569, 1993, 1533, 1882, 159, 858, 1362, 1295, 950, 1230, 1614, 512, 2190, 523, 562, 1596, 1815, 1000, 662, 861, 1883, 2032, 1677, 296, 1335, 6, 1, 91, 8, 13, 92, 86]. **Chamber** [1118]. **Change** [1626, 1754, 2022, 1876, 1334, 1445, 1799, 1734, 698, 255, 1363, 935, 592, 1121, 1221, 1383, 1546, 240, 923, 2158, 185, 1268, 2043, 538, 2131, 650, 851, 809, 1715, 1943, 824, 237, 1506, 207, 1574, 1755, 2083, 1193, 1881, 1815, 2039, 265, 1067, 2002, 1812, 1929, 2013, 1723, 1739, 476, 1982, 251, 1758, 38, 154, 61, 114, 108, 133, 145]. **Changes** [1438, 43, 1797, 247, 1329, 1321, 1736, 850, 1046, 429, 565, 525, 696, 629, 1504, 1946, 2212, 246, 1373, 1066, 768, 2136, 1550, 974, 508, 2015, 402, 1589, 1055, 669, 799, 964, 2101, 468, 652, 514, 645, 587, 27, 156, 879]. **Changing** [1216, 712, 1358, 1859, 1974, 1163, 532, 1609, 1085, 1006, 350, 1587, 364, 1631, 995, 739, 2186, 829, 1086, 903, 1738, 1115, 1647, 231, 1658, 160]. **Changjiang** [1274]. **Channel** [1113, 401, 1090, 2078]. **Channeled** [1114]. **Channels** [1784]. **Characteristics** [548, 201, 397, 2175, 1720, 1649, 755, 1873, 406, 861,

1998, 2161, 1123, 32, 996, 212]. **Characterization** [832, 919, 444, 886, 184, 1325, 1065, 604, 1108, 2036, 895, 1744, 417, 2171, 2183]. **Characterized** [1303]. **Characterized** [1959]. **Characterizing** [176, 839, 1099]. **characters** [80]. **Charismatic** [1287]. **Chasing** [1198]. **Chatham** [1971]. **Chattonella** [1384, 1553]. **Chelidoperca** [1930]. **Chelonia** [918]. **Chemical** [182, 1143, 928, 2151, 1413, 1829, 2136, 269, 1074, 424, 1034, 1127, 670, 29, 114]. **Chemicals** [1782, 29]. **Chemistry** [1329, 383, 1628, 1530, 974, 653, 2174, 1106, 2162, 1622, 46, 58]. **Chemolithoautotrophic** [1102]. **Chemosphere** [333]. **Chemosymbiotic** [1213, 2143]. **Chemotherapeutants** [1159]. **Chesapeake** [1567, 1391, 1172, 619, 1353]. **Children** [1271, 1855]. **Chile** [1354, 1110]. **Chilean** [1208, 1389, 1492, 126]. **Chimney** [972]. **China** [1274, 494, 301, 1454, 1661, 957, 1958, 2065, 2187]. **Chinese** [673, 1620, 221]. **Chionoecetes** [1518, 1511]. **Chip** [812, 745]. **Chitin** [1278, 457]. **Chitosan** [831]. **Chloride** [791]. **Chlorophyll** [596, 629, 773, 643, 839, 862, 1494, 2061, 402, 726, 876, 81, 682, 526, 612, 1825]. **Chlorophyll-a** [643, 2061, 402, 1825]. **Chlorophyll-to-Carbon** [526]. **Chlorophyta** [333]. **Chloroplast** [191, 1136]. **Chloroplasts** [1318]. **choice** [134]. **cholerae** [831]. **Cholesterol** [1560]. **Chondrichthyan** [1016]. **Chorus** [1990]. **Chromatin** [2184]. **Chromatin-Modifying** [2184]. **Chromatography** [447, 895]. **chromium** [152]. **Chromophoric** [1786, 920, 288, 211]. **Chronic** [2053]. **Chrysophrys** [1139, 1357]. **Chukchi** [1293, 432]. **Chuuk** [241]. **Ciliate** [1203, 508]. **Ciliates** [1136, 477]. **CIOOS** [1896]. **Circadian** [817]. **Circular** [2090]. **Circulation** [1533, 1726, 2165, 2213, 1218]. **Circumneutral** [336]. **Circumpolar** [1612, 767]. **Cities** [466, 703]. **Citizen** [1981, 1705, 2003, 1802, 1815, 638, 1691]. **Citizen-Science** [1691]. **Clade** [781]. **Cladosporium** [33]. **Claims** [1381]. **Clam** [1266, 1074]. **Clams** [589, 483, 2143]. **Clarion** [2067, 595]. **Clarion-Clipperton** [2067]. **Class** [1832, 925]. **Classes** [618, 1725]. **Classical** [1615]. **Classics** [1402]. **Classification** [2108, 1515, 511, 1018, 574]. **Classroom** [1806]. **Clausocalanus** [527]. **Clay** [1968, 1669]. **Cleaning** [1556, 1932]. **Cleanup** [1409]. **Clearwater** [536]. **click** [46, 58]. **Climate** [466, 1626, 2022, 1876, 1799, 698, 255, 1363, 935, 798, 1884, 1974, 1967, 2154, 532, 592, 1121, 307, 2158, 185, 2185, 1268, 1498, 2043, 2131, 1523, 1821, 1946, 1068, 650, 851, 809, 1961, 1715, 1906, 1373, 1066, 237, 1506, 207, 1574, 1755, 2209, 2083, 1193, 1439, 1815, 1440, 265, 1067, 2002, 1812, 1719, 2014, 903, 2020, 1899, 1909, 1731, 918, 231, 1045, 693, 2085, 1982, 251, 1355, 1758, 154, 110, 114, 108, 133, 703, 2212, 1647]. **Climate-Forced** [1439]. **Climate-Induced** [2209, 1731, 1045]. **Climatic** [72, 829]. **Climatologies** [1259]. **Climatology** [548]. **Clipperton** [2067, 595]. **Clock** [817]. **Clonal** [1617]. **Close** [1807]. **Closed** [228]. **Closer** [2040]. **Closures** [1063]. **Cloud** [1677]. **Clown** [1011, 1215]. **Clupea** [1659]. **Cluster** [2199]. **CMIP5** [242].

**Cnidaria** [104, 2172]. **Cnidarian** [2168, 1425, 1918]. **Cnidarians** [1323].  
**cnidata** [1441]. **Co** [1570, 1456, 1448, 835, 927, 1858, 380, 5, 1529, 1543, 1259,  
1432, 47, 2079, 1468, 1241, 1144, 1388, 768, 635, 1047, 929, 1427, 440, 757,  
1387, 1134, 1152, 126, 1281, 1692, 1217, 1604, 2162, 1866, 1978, 2054].  
**co-evolution** [5]. **Co-fed** [1456]. **Co-limitation** [927]. **Co-management**  
[835, 1858]. **Co-occurrence** [380]. **Co-occurring** [1448]. **Co-produced**  
[1570]. **Coarse** [1244]. **Coast**  
[1164, 2022, 1876, 1260, 356, 1921, 1159, 140, 1412, 1841, 1667, 1538, 1464,  
1520, 1673, 1613, 1735, 126, 1009, 1481, 1737, 1965, 814, 434, 1354, 189, 244].  
**Coastal** [466, 703, 2134, 922, 1216, 1941, 224, 1648, 486, 2089, 1072, 2050,  
1637, 291, 1814, 303, 606, 1591, 1296, 2048, 993, 1461, 1482, 586, 1612, 2086,  
678, 906, 1437, 1790, 1163, 521, 1901, 1676, 1238, 1400, 1819, 1298, 1346, 1993,  
315, 2066, 211, 323, 1486, 1476, 474, 1467, 1444, 812, 864, 1975, 1420, 1922,  
745, 1638, 1921, 551, 1721, 632, 869, 684, 633, 1957, 1664, 1291, 1756, 1644,  
643, 1273, 415, 391, 1243, 1823, 1192, 1001, 2151, 705, 1829, 635, 1605, 233,  
1202, 836, 1352, 770, 707, 929, 1018, 1991, 2207, 467, 1753, 579, 780]. **Coastal**  
[1870, 1740, 2077, 203, 1579, 1617, 408, 1494, 1440, 2061, 1902, 1403, 1067,  
1328, 1607, 1934, 676, 500, 662, 2127, 813, 1780, 2020, 1673, 2062, 1766, 2189,  
1774, 272, 216, 1643, 1855, 644, 2035, 302, 1692, 1132, 166, 819, 1924, 1559,  
1544, 251, 1665, 489, 244, 1825, 2187, 38, 159, 4, 152, 75, 17, 136, 161].  
**Coastal-Marine** [303]. **Coastal-Upwelling** [705]. **Coastline** [1977].  
**Coasts** [1616, 1273, 1950, 1169, 380]. **coccinea** [1322]. **Coccolithophore**  
[1257, 1517, 205, 487]. **Coccolithophores** [1237]. **Coccolithophorid** [923].  
**Coccosphere** [1237]. **Cochlodinium** [1928]. **Coco** [1022]. **Cod**  
[328, 1413, 1647, 794, 701]. **Code** [1770, 305]. **Coefficient** [939, 319].  
**Coefficients** [211]. **Coexisting** [67, 2164]. **Coherence** [1287]. **COI** [688].  
**Coincident** [1089]. **CoLAB** [2082]. **CoLABorative** [2082]. **Cold**  
[828, 777, 593, 580, 115, 907, 1652, 1182, 1583, 1587, 603, 1548, 1752, 901,  
2171, 945, 1309, 2128, 610, 130]. **Cold-Water**  
[828, 593, 580, 1652, 1587, 603, 1548, 1752, 901, 1309, 2128, 610, 115].  
**Collaboration** [1791, 1757, 163]. **Collaborative** [2170, 1870, 1875].  
**Collapse** [968]. **Collect** [1118]. **Collected** [1159]. **Collections**  
[575, 2211, 1332, 100]. **Collision** [1969]. **Collodaria** [1318]. **Collozoum**  
[1318]. **Colombian** [1445, 1545, 1581, 954]. **Colonial** [477]. **Colonization**  
[658, 1130, 1549]. **Colonizing** [1942, 2214]. **Colony** [1195]. **Color**  
[547, 596, 242, 1987, 741, 1717, 868, 1215, 942, 898]. **Colorful** [585].  
**Colorimetric** [1143]. **Colossoma** [1423]. **Colour** [1949]. **Columbia**  
[1052, 1495, 469, 1600]. **Column** [620, 1419, 146, 59]. **Columns** [597].  
**Comau** [1389]. **Comb** [2098]. **Combatting** [217]. **Combination** [947].  
**Combined** [261, 1939, 1956, 699, 842, 362, 1034, 801]. **Combining**  
[753, 570, 1269, 1068, 2038]. **COMICS** [338]. **Commentary**  
[1168, 1398, 392, 1554, 2209, 1527, 1762]. **Commercial** [1965, 253, 1369].  
**Commission** [360]. **Common**  
[994, 1762, 449, 818, 1230, 1713, 1633, 772, 688, 725, 1147, 913, 1398, 806].

**Commons** [1231, 1145]. **Communicate** [1940]. **Communication** [1201, 370]. **Communicators** [1770]. **Communities** [832, 951, 1536, 2022, 1876, 1009, 1314, 2004, 1296, 1371, 921, 1219, 731, 1437, 1163, 448, 663, 387, 1322, 1954, 1359, 1467, 1444, 1274, 1093, 2043, 450, 1144, 607, 869, 1775, 760, 1429, 1778, 218, 1569, 752, 791, 1293, 929, 1757, 1955, 697, 967, 891, 834, 435, 442, 879, 669, 554, 1766, 1738, 1759, 1817, 577, 1261, 964, 1132, 702, 1309, 1289, 1031, 1288, 221, 14, 130, 16]. **Community** [1529, 1963, 1543, 742, 1680, 986, 728, 439, 1491, 1678, 1090, 45, 1992, 1531, 204, 1704, 595, 968, 1609, 2148, 1971, 429, 1241, 1854, 1430, 322, 1325, 372, 1203, 2118, 313, 633, 738, 1920, 1186, 624, 1452, 248, 788, 421, 1768, 1696, 2137, 878, 661, 2015, 653, 1815, 1669, 1055, 535, 664, 1576, 272, 544, 234, 210, 1763, 2070, 990, 318, 476, 469, 1600, 833, 652, 1761, 2053, 1508, 504, 1289, 1741, 82, 39, 72, 67]. **Community-Based** [439, 322, 633, 664]. **Community-Level** [204]. **Compact** [1526]. **Comparable** [277]. **Comparative** [2059, 907, 1030, 226, 1462, 80, 1952]. **Compared** [1033]. **Comparing** [997, 383, 1101, 860, 1964, 715, 18, 772]. **Comparison** [933, 1956, 1350, 1657, 684, 936, 2122, 1324, 876, 1052, 471, 161, 83]. **Comparisons** [1569]. **Compartmentalization** [1322]. **Compatible** [581, 1578]. **Competing** [1604]. **Competition** [953, 1725, 544]. **Competitive** [325]. **Compilation** [422]. **Complementary** [2055, 484, 1142]. **Complete** [1523, 1558]. **Completion** [1434]. **Complex** [1008, 328, 258, 1843, 2000, 321, 1665]. **Complexation** [261, 336]. **Complexities** [273, 2196]. **Complexity** [2153, 1962, 1138, 239]. **Complexity-Awareness** [1138]. **Complexometric** [744]. **Compliance** [269, 664, 167]. **Component** [1792, 2114, 2008, 1887, 2215]. **Components** [2046, 2055, 70]. **Composing** [788]. **Composition** [590, 1314, 1491, 1229, 1103, 356, 1854, 1946, 2212, 313, 1844, 636, 1186, 1452, 248, 1696, 2136, 402, 1174, 535, 1127, 256, 833, 1761, 587, 174, 213, 14, 83, 59, 1161]. **Compositions** [1733, 1356]. **Compounds** [1072, 1238, 1317, 833, 174, 213, 36, 37]. **Comprehensive** [1900, 631, 1902, 29, 964]. **compressa** [1777]. **Computation** [1677]. **computational** [100]. **Compute** [2199]. **computed** [90]. **concentrate** [56]. **Concentration** [1319, 1229, 1655, 629, 744, 1036, 1134]. **Concentrations** [863, 1456, 1259, 1321, 481, 1852, 211, 961, 445, 1733, 1356, 684, 862, 1317, 1996, 620, 526, 438, 113, 77]. **Concept** [2089, 1661, 978, 957, 1903, 1497, 1290]. **Concepts** [449, 385]. **Conceptual** [1249, 923, 346, 2070]. **Conceptualizing** [1697]. **Concern** [416]. **Concerns** [983, 918]. **Conch** [671]. **Conched** [274]. **Concretions** [2005]. **Concurrent** [1788]. **Condition** [1747, 1840, 202, 940, 967, 1355]. **Conditions** [1216, 1529, 1393, 1163, 881, 1852, 720, 1631, 1310, 739, 2015, 1222, 1947, 1929, 829, 1141, 1124, 475, 1281, 1115, 1522, 1699, 1261, 1162, 16, 56]. **Conduct** [305]. **Conducting** [1183]. **Conference** [305]. **Conferences** [747, 721]. **Configuration** [1617, 540]. **Confirms** [910, 1741]. **Conflict** [2167]. **Confluence** [529]. **Congeneric** [1448]. **Congeners** [503]. **Congress**

[747]. **Congruent** [567]. **Connect** [2082, 2014]. **Connected** [1775]. **Connecting** [1822, 1998, 1594]. **Connection** [1225]. **Connections** [1942, 2214]. **Connectivity** [1706, 1598, 181, 1221, 1954, 1105, 864, 495, 1295, 584, 2018, 1627, 1753, 930, 1958, 871, 1083, 1539]. **Cons** [717]. **Consensus** [1865]. **Consensus-Building** [1865]. **Consequences** [1072, 617, 730, 660, 1745, 949, 1738]. **Conservation** [180, 1331, 1760, 1703, 1556, 479, 303, 843, 290, 208, 567, 376, 1704, 844, 2156, 1770, 1016, 497, 641, 1488, 1351, 474, 1154, 390, 1462, 92, 983, 1345, 648, 778, 144, 1138, 634, 1109, 2190, 1477, 979, 767, 1577, 1199, 2018, 1627, 1084, 2031, 747, 562, 178, 430, 395, 789, 1713, 1562, 1666, 825, 554, 2102, 837, 1521, 724, 1245, 782, 2180, 1095, 588, 989, 1603, 91, 26, 110]. **conservative** [1945]. **Conserved** [1289]. **Conserving** [96, 5]. **Consideration** [1624]. **Considerations** [1722, 1913, 1666, 346, 1865, 948]. **Consistent** [1523, 1452, 1663]. **Consortium** [458, 107]. **Constituents** [2179, 1687]. **Constrained** [600]. **Constraining** [470, 2008, 1886]. **constrains** [162]. **Constraints** [994, 2055, 1183]. **Construction** [2110, 1055, 93]. **Consumer** [533]. **Consumers** [1994]. **Consuming** [458]. **Consumption** [1482, 673, 1620, 539]. **Containing** [1137, 1560]. **Contaminants** [1226, 1074]. **Contamination** [2151, 1829, 416]. **Contemporary** [753, 883]. **Content** [1432, 240, 292, 1794, 1897, 1327, 186, 1563, 694, 23]. **Contents** [1236, 1593]. **Contested** [1231]. **Context** [180, 642, 322, 1835]. **Contiguous** [1351]. **Continental** [2022, 1876, 320, 1234, 1515, 1860, 769, 768, 453, 1763, 1169, 92]. **Continental-Scale** [2022, 1876]. **Continue** [419]. **Continuing** [1777]. **Continuous** [1917, 1403, 63]. **Continuum** [1496, 481, 2103, 460, 499]. **Contraction** [1341]. **Contrast** [1274, 1042]. **Contrasting** [904, 1393, 1597, 1681, 537, 963, 1323, 1049, 1650, 1227, 2130]. **Contribute** [1176, 992, 999]. **Contributes** [505, 1476, 1237]. **Contribution** [1661, 2090, 1582, 756, 666, 1040, 1027, 975]. **Contributions** [443, 1899, 667]. **Control** [1968, 803, 214, 716, 320, 542, 1720, 1036, 1187, 2083, 1690]. **Controlled** [173, 191, 475, 341]. **Controlling** [1995]. **Controls** [1393, 1696, 1778, 2016, 602, 677, 1711, 1650, 504, 338]. **Convention** [215]. **Conventional** [1072, 937]. **Convergence** [659]. **Convergent** [729]. **conversion** [18]. **Coomassie** [1137]. **Cooperation** [1561, 2063]. **Cooperative** [2085, 608]. **Coordinated** [1783, 1551, 1898]. **Coordination** [1914]. **Copepod** [426, 527, 387, 292, 910, 1087]. **Copepods** [1013, 833]. **Copernicus** [1700]. **Copper** [261, 444, 1443, 447, 1455, 281, 670]. **Copy** [1685]. **Coral** [340, 815, 1804, 326, 1331, 1840, 828, 1988, 528, 502, 982, 955, 2004, 962, 280, 1448, 1112, 593, 1363, 935, 2026, 2155, 1271, 1158, 214, 716, 1091, 1684, 1566, 314, 1081, 1748, 448, 663, 1101, 1652, 2121, 1221, 397, 1628, 594, 1404, 565, 1547, 1962, 1129, 1105, 1234, 398, 940, 960, 1093, 1209, 2176, 902, 650, 1554, 987, 1069, 1844, 1418, 636, 1388, 1214, 760, 353, 2033, 1452, 603, 1548, 462, 788, 2003, 273, 1316, 1473, 988, 1506, 878, 1187, 2190, 1047, 584, 752, 2209, 2146, 1396, 2016, 2044, 739, 2015, 653, 1184, 1671]. **Coral** [239, 1041, 1327, 963, 967, 1053, 1589, 1457, 834, 93, 179, 435, 749, 1060, 799,

959, 647, 1772, 317, 1828, 1731, 871, 901, 1083, 1380, 501, 759, 1106, 1549, 964, 1692, 784, 381, 543, 413, 787, 1280, 1254, 2205, 1355, 1309, 1662, 2021, 1688, 996, 2135, 621, 2125, 433, 763, 2128, 610, 129, 127, 57, 1168, 115, 122, 63, 139, 82, 76, 96, 145, 85, 84, 56]. **Coral-Algal** [1112, 1316]. **Coral-Associated** [752]. **Coral-Bacteria** [326]. **Coral-Eating** [1988]. **Coral-Spawn** [2121]. **Coral-Zoothanthella** [959]. **Corallina** [1751]. **Coralline** [704, 1654, 1618, 1574, 1427, 2186, 1549, 787]. **Corallivory** [1457]. **Corals** [2141, 795, 255, 580, 198, 1652, 1640, 999, 706, 1587, 1936, 634, 2018, 1627, 714, 976, 2149, 1986, 1279, 942, 1157, 2000, 1541, 189, 924, 1838, 945, 2162, 1032, 10, 104]. **coriacea** [713]. **cornigera** [2155]. **Correction** [1772]. **Correlated** [193]. **Correlation** [639, 1192]. **Corrigendum** [703, 1100, 2022, 2106, 716, 614, 1046, 867, 1368, 663, 1620, 696, 147, 238, 1161, 2212, 2208, 2168, 1689, 2211, 583, 748, 2018, 770, 1246, 2213, 2207, 1126, 1501, 879, 58, 2210, 2214, 120, 2013, 1699, 2215, 1128, 1235, 549, 1058, 213, 1808]. **Corrosion** [241, 1127]. **Corsair** [2018, 1627]. **Cory** [1308]. **Coscinodiscus** [191]. **Cosmopolitanism** [1224]. **Cost** [491, 1742, 936, 1983]. **Cost-Effective** [1742, 936, 1983]. **Costa** [1594, 644, 1016, 1378, 189]. **Costs** [1417, 394, 1283]. **Could** [1396]. **counter** [66]. **countries** [19, 121]. **Counts** [1702]. **Coupled** [1417, 2154, 1961, 1682, 1857, 107, 432]. **Coupling** [951, 521, 1989]. **Covariance** [1217]. **Cove** [2118]. **Cover** [2153, 902, 653, 135]. **Coverage** [209, 2005]. **Cow** [473]. **Crab** [1974, 1518, 324, 1082]. **Crabs** [1116, 1511, 1095]. **Crangon** [2096]. **Crassostrea** [219, 1240, 1832, 604, 1134]. **Crassostrea** [550]. **Creating** [1605]. **Creation** [1195]. **Crepidula** [1406, 1243]. **Cresol** [1108]. **Cretan** [382]. **Crime** [1198]. **Crisis** [1262, 1231]. **cristatus** [971]. **Criteria** [1721, 1390, 175]. **Criterion** [1353]. **Critical** [1221, 1434, 1360, 800, 806, 1996, 1894]. **Crocospaera** [1443]. **Cross** [1561, 1009, 1114, 885, 855, 2018, 1627, 1246, 1160, 1862, 1092, 10]. **Cross-Boundary** [2018, 1627]. **Cross-Cultural** [1862]. **Cross-Jurisdictional** [1246, 1160]. **Cross-National** [1561]. **Cross-Scale** [885]. **Cross-Shelf** [1092]. **Cross-Shore** [1009, 1114]. **cross-species** [10]. **Crossover** [463]. **Crowds** [574]. **Crowdsourcing** [369]. **Crucial** [2184]. **Crude** [1319, 1834, 1127]. **Crude-Oil** [1319]. **Cruise** [1718]. **Crustacean** [1867, 2129]. **Crustaceans** [1092]. **Crustose** [1618, 1549]. **Cryopreserved** [1919]. **Cryptic** [1151, 869, 2078]. **Cryptophyte** [1172]. **Crystal** [1304]. **Crystalline** [173]. **CSP** [658, 1137]. **CT** [2191]. **Cu** [281, 321]. **Cu-Complex** [321]. **Cuban** [1225]. **cubic** [152]. **Cues** [808]. **Cultivated** [1384]. **Cultivation** [1461, 1349]. **Cultural** [300, 1697, 1646, 1862]. **Culture** [2119, 2161, 157]. **Cultured** [607, 1422, 1789]. **Culturing** [2121]. **Cumulative** [355, 206, 2180, 125]. **Cupcorals** [1322]. **Cups** [1002]. **Curacao** [448, 663]. **Current** [1417, 291, 230, 320, 171, 1842, 860, 1949, 1649, 1961, 2193, 950, 908, 1714, 1960, 1025, 1888, 1379, 62, 11, 1668, 2195, 1382]. **Current-Induced** [1379]. **currently** [19]. **Currents** [1565, 1675, 1939, 1890, 699, 2060, 1903, 1239]. **Curtains** [792]. **Curves**



[247]. **Custom** [915]. **Custom-Built** [915]. **Customized** [2149]. **cuvier** [1695]. **cv1** [1832]. **Cyanobacteria** [313, 790, 199, 616, 157, 1173]. **Cyanobacterial** [1364, 986, 257, 867, 949, 348, 2103]. **Cyanobacterium** [1805]. **Cyanophages** [199]. **Cycle** [1988, 528, 946, 2079, 1434, 1354, 2202, 1960, 600, 158]. **Cycles** [951, 1388, 1514, 2120, 1877, 876, 1045, 43]. **Cycling** [992, 1612, 1078, 1179, 2103, 1860, 1664, 622, 1222, 477, 281, 1258, 623, 499, 115, 54, 147, 238, 124]. **Cyclones** [1911]. **Cyclonic** [357]. **Cyclorhagida** [7, 120]. **Cyclotron** [321]. **cylindrus** [1445, 1473]. **Cyprinodon** [1017]. **Cytometry** [849].

**D** [1229]. **D.** [1544]. **Damage** [280, 187]. **damicornis** [1117, 1177]. **Damselfish** [1879]. **Dana** [1087]. **Danio** [1560]. **Danish** [486, 1405, 1794, 1643]. **Dark** [1423, 419, 234, 231, 2125, 433]. **Darwin** [606, 586]. **Data** [2117, 2067, 1820, 1648, 997, 1259, 1966, 1513, 1481, 956, 1500, 2007, 343, 422, 1959, 1437, 618, 1059, 1063, 1900, 1882, 1767, 2201, 852, 1756, 369, 746, 1779, 1558, 1630, 1142, 736, 1000, 877, 723, 1080, 2133, 2200, 1907, 1905, 952, 1803, 404, 1217, 1677, 645, 688, 244, 27, 95, 103, 1320, 395]. **Data-Limited** [2117]. **Data-Poor** [1437]. **Database** [2170, 853, 2078]. **Databases** [1487, 947]. **Dataset** [1015]. **Dates** [665]. **Day** [2007, 1282, 2193, 419, 1396, 1868]. **De-correlation** [1192]. **Dead** [2172]. **Debris** [351, 570, 659, 1912, 966, 2105, 68]. **Decadal** [1694, 1445, 240, 415, 421, 1568, 1857, 2039, 1719, 1872, 1604, 416]. **Decadal-Scale** [1604]. **Decade** [1648, 1890, 1743, 723, 662, 1401, 1692]. **Decades** [1061, 1066, 192, 379, 1494, 1708, 1353, 118]. **Decapod** [2129]. **Decay** [241]. **December** [161]. **Decision** [1556, 1262, 1822, 1932, 299]. **Decision-Making** [1556, 1262]. **Decisions** [634]. **Decline** [1974, 887, 481, 1541]. **Declines** [224, 1506]. **Declining** [416]. **Decommissioning** [1666]. **Decomposition** [334]. **Deconstructing** [322]. **Decoupling** [1778, 2071, 559]. **Decrease** [1657]. **Decreased** [1176, 1427]. **Decreases** [1838]. **Decreasing** [2093, 481]. **Deep** [832, 182, 2067, 1626, 690, 1039, 900, 2004, 777, 1090, 1612, 580, 1518, 1181, 448, 663, 595, 283, 1179, 594, 1404, 1640, 1583, 1927, 1360, 519, 858, 932, 1837, 460, 1631, 1944, 2208, 1841, 2060, 1213, 2143, 1463, 1707, 2018, 1627, 661, 446, 1516, 980, 1022, 984, 368, 697, 1048, 840, 1744, 1019, 1576, 749, 442, 2127, 2040, 1060, 1976, 294, 577, 1411, 1926, 948, 1869, 1275, 1029, 2198, 83, 115, 122, 97, 138, 86, 76, 1126, 1519]. **Deep-Diving** [1360]. **Deep-Sea** [832, 900, 2004, 1518, 1181, 595, 1404, 1640, 1583, 1927, 858, 1837, 1631, 1944, 2208, 1213, 2143, 446, 1516, 980, 984, 697, 1048, 840, 1744, 749, 442, 1060, 294, 1869, 1275, 1029, 83, 97, 76, 1126]. **Deep-Seabed** [2067]. **Deep-Water** [2018, 1627]. **Deeper** [1771]. **Deepwater** [872, 1516, 2115, 1408]. **Defatted** [270]. **Defense** [284]. **Deficiency** [1005]. **Deficient** [395, 17]. **Deficit** [1353]. **Define** [1199]. **Defining** [1186, 1702]. **Deg** [15]. **Deg-protease** [15]. **degassing** [112]. **Degradation** [1448, 1311, 1793, 920, 926, 686, 2036, 1071]. **Degraded** [193]. **del** [1022, 870]. **Delineation** [1069, 1580]. **Deliver** [1665].

**Delivered** [1757]. **Delivering** [1898]. **Delivery** [1355]. **DELPHI** [100].  
**Delta** [184, 16, 212]. **Demand** [1798]. **Demersal**  
[2059, 1854, 1853, 1630, 598]. **Demographic** [698, 834, 688]. **Demographics**  
[816]. **Demography** [2157, 872, 2009]. **Demonstrate** [1148]. **Demonstrates**  
[209]. **Demosponge** [429, 1341]. **Demosponges** [1794]. **Demospongiae**  
[781, 1441]. **Dendrogyra** [1445, 1473]. **Dendrophyllia** [2155].  
**Denitrification** [277, 515]. **Dense** [1288]. **densest** [57]. **Densities** [631].  
**Density** [613, 1015, 1842, 1534, 2192, 462, 266, 1772, 2081].  
**Density-Dependence** [2081]. **Density-Dependent** [266]. **Deoxygenation**  
[1788, 1465, 76]. **depend** [105]. **Dependence** [462, 2081, 23]. **Dependent**  
[731, 855, 293, 583, 925, 266, 1773, 1289, 143]. **Depends** [1714]. **Depleted**  
[1165, 597, 98]. **Depletion** [311]. **Deployment** [991, 1966, 886]. **Deposited**  
[1022]. **Deposition**  
[423, 691, 173, 527, 320, 372, 1653, 661, 609, 329, 1177, 702, 612, 482, 549, 106].  
**Depositional** [1729]. **Depositions** [488, 382]. **Deposits** [181, 1925].  
**Deprivation** [732]. **Depth** [590, 1939, 1597, 960, 1428, 692, 1696, 293, 583,  
1599, 1904, 2163, 1773, 1838, 143, 1029, 587, 109, 84]. **Depth-Dependent**  
[1773, 143]. **depth-gradient** [109]. **Depths** [1771, 909]. **Depuration** [1266].  
**Derived**  
[1242, 744, 1832, 286, 920, 1192, 764, 862, 1194, 408, 723, 1772, 682, 543, 168].  
**Deriving** [1721]. **Dermal** [711]. **Dermis** [2010]. **Derموchelys** [713].  
**Desalination** [1610, 56]. **Desaturase** [2145]. **Described** [808].  
**Descriptions** [367, 1930]. **Desferrioxamine** [319]. **Design**  
[1722, 1661, 1485, 1705, 2033, 1916, 1579, 228, 1559]. **Designate** [871].  
**Designated** [832]. **Designating** [1331]. **Designation** [802]. **Designed** [715].  
**Designing** [1882, 1818]. **Desmodesmus** [270]. **destructive** [553]. **Detailed**  
[1564]. **Details** [1750]. **Detect** [454]. **Detected** [931, 374]. **Detecting**  
[2067, 1286, 2200, 1723, 2013]. **Detection**  
[1536, 1064, 1578, 553, 1063, 1143, 408, 898, 2171, 2084, 100]. **Deterioration**  
[241]. **Determinants** [1173, 1284, 221]. **Determination**  
[1165, 1226, 445, 859, 1361, 319, 645, 1035, 152]. **Determine**  
[1729, 1357, 748, 695, 665, 1095]. **Determined** [1094, 1936]. **Determining**  
[1486, 756, 1402, 136]. **Detritus** [1793, 109]. **Develop** [1806, 379, 2183].  
**Developed** [1489, 1789]. **Developing**  
[1799, 1249, 1503, 579, 1611, 1673, 2065, 110, 121]. **Development**  
[180, 373, 1529, 1164, 1277, 547, 1575, 733, 1450, 1819, 2075, 1453, 934, 550,  
1927, 917, 551, 2042, 1916, 1834, 908, 1076, 1053, 1401, 2127, 1441, 10, 1643,  
1896, 1951, 896, 18]. **Developmental** [37]. **Developments** [386, 1167].  
**Devices** [792, 755, 1951]. **Devil** [1245]. **Devils** [528]. **DHA** [1563].  
**Diabetes** [271]. **Diadema** [266]. **Diagenesis** [1181, 186]. **Diagenetic** [1344].  
**Diagenetically** [1772]. **Diagnostics** [553, 976]. **diary** [35]. **Diatom**  
[1543, 247, 850, 1228, 191, 461, 1056, 1285, 292, 770, 707, 571, 898, 1049, 1258,  
1131, 514, 645, 958, 1098, 1046]. **Diatom-Bacteria** [1131].  
**Diatom-Mediated** [247]. **Diatom/Dinoflagellate** [514, 645]. **Diatoms**

[1301, 419, 1752, 770, 707, 1013, 1033, 509, 694, 3, 66]. **Diazotroph** [1838, 958]. **Diazotrophic** [933, 157]. **Diazotrophs** [502, 572, 1689]. **Diel** [822, 1282, 1388, 2193, 1972, 199]. **Diemen** [606]. **Diet** [946, 767, 859, 566]. **Dietary** [814, 1593, 310, 775]. **Differ** [1483]. **Differences** [613, 1326, 1248, 855, 2098, 2193, 442, 1050, 381, 359, 1836, 1206, 101]. **Different** [1164, 396, 1456, 698, 593, 255, 1540, 1386, 807, 1640, 41, 760, 484, 1778, 1725, 410, 729, 1117, 1281, 1380, 1106, 2085, 909, 1147, 18]. **Differential** [2007, 188, 1023, 2164]. **Differentially** [1448, 604, 1669, 799, 1032]. **Differentiated** [1280]. **Differentiating** [1356]. **Differentiation** [1322, 1143, 1324, 725, 1289, 85]. **differently** [16]. **Differs** [1280]. **Difficulties** [291, 1762, 913, 1398]. **Diffuse** [1936, 939, 1795]. **Diffusion** [1479]. **Digital** [1064, 604]. **digitata** [893]. **Diluted** [1274]. **Dimension** [1835]. **Dimensional** [1059, 600]. **Dimensions** [2057]. **Dimethyl** [1176]. **Dimethylated** [921]. **dimethylsulfide** [4]. **Diminish** [450]. **Dimorphic** [1043]. **Dinitrogen** [880, 382, 157]. **Dinner** [2092]. **Dinoflagellate** [1701, 1205, 1297, 855, 176, 1148, 1251, 1469, 1550, 508, 1422, 205, 1712, 1049, 1324, 1258, 514, 645, 1289]. **Dinoflagellates** [1510, 196, 1616, 1418, 1613]. **Dinophyceae** [1297, 1220, 1352]. **Dinophyta** [176, 1352]. **Dinoroseobacter** [1205]. **Dioxide** [1490, 2114, 1957, 568, 2210, 556, 1559]. **Diphyllbothrium** [1389]. **Direct** [173, 503]. **Directional** [441, 674]. **Directions** [1264, 1442, 1462, 1480, 1446, 1385, 1713, 1562, 262, 1330]. **Directive** [420, 384, 1950, 806, 346]. **Directives** [1584]. **Directly** [277]. **Dirty** [430]. **Disaggregating** [853]. **Discard** [591]. **Discarding** [591]. **Discards** [767]. **Discharge** [1070, 1610, 764, 2076, 1801, 1354, 722, 2027, 819, 2105, 56]. **Discharged** [2163]. **Disciplinary** [1904]. **Discourses** [390]. **Discovered** [1959, 138]. **Discoveries** [1709]. **Discovery** [1583, 36]. **Discriminating** [1174, 2174]. **Disease** [2141, 280, 2016, 501, 1254, 1168, 139, 134]. **Disentangling** [1512]. **Disko** [1801]. **Disorders** [2041]. **Disparity** [933, 1375]. **Dispersal** [268, 691, 320, 1028, 978, 1007, 2038, 871, 901, 2056, 989, 86, 96, 69]. **Dispersant** [1090, 1320, 1127]. **Dispersion** [1410]. **Dispersivity** [1823]. **Display** [890, 967, 1117]. **Disposal** [948]. **Disrupts** [1834]. **Dissection** [986]. **Dissipation** [1212]. **Dissolution** [1302, 1033, 413, 129]. **Dissolved** [863, 201, 40, 1020, 1393, 463, 887, 257, 867, 581, 513, 1311, 1165, 481, 211, 1161, 1103, 518, 812, 287, 184, 313, 1664, 1786, 137, 920, 248, 926, 106, 288, 2136, 561, 686, 1945, 530, 1317, 194, 316, 424, 203, 895, 854, 451, 1019, 179, 1818, 400, 301, 503, 1235, 1079, 833, 761, 1353, 1256, 157, 155, 165, 143, 150, 168, 59]. **Distance** [902, 901, 86]. **Distant** [697]. **Distinct** [742, 992, 607, 435, 749, 2058, 28]. **Distribution** [1963, 1840, 1314, 946, 1567, 1150, 289, 658, 1668, 1535, 1151, 2195, 1078, 1382, 1954, 1724, 947, 522, 1297, 884, 1631, 1180, 1436, 1823, 631, 1730, 237, 821, 1873, 820, 981, 1378, 1464, 683, 470, 911, 2038, 475, 306, 1942, 2214, 903, 1872, 301, 404, 608, 787, 1868, 1761, 2198, 489, 909, 1471, 1560, 88, 46, 58, 79]. **Distributional** [846]. **Distributions**

[1329, 1350, 916, 624, 2192, 681, 1990, 2147, 400, 1095]. **Disturbance** [1482, 1660, 1292, 1336, 1133, 1048, 963, 442, 990]. **Disturbances** [795, 2039]. **Disturbed** [1927, 1316, 2035]. **Diurnal** [483, 817]. **DIVA** [244]. **Dive** [994, 2007, 1394, 2040]. **Divergence** [454, 2181]. **divergens** [330]. **Divergent** [795, 314, 1339]. **Divers** [1705]. **Diverse** [1819, 2129, 783]. **diversicolor** [1030]. **Diversification** [1289]. **Diversity** [1804, 1787, 900, 547, 567, 614, 560, 844, 1081, 1652, 1597, 1954, 1016, 944, 960, 1582, 1208, 1705, 902, 869, 1930, 705, 454, 1011, 686, 681, 1599, 1617, 477, 1942, 959, 647, 894, 724, 1774, 1763, 2101, 1419, 543, 361, 2078, 456, 42, 25, 2214]. **Dives** [368]. **Diving** [1360]. **d'Ivoire** [380]. **DMS** [4]. **DNA** [1941, 558, 298, 1064, 846, 2195, 804, 599, 1186, 1286, 2137, 2181, 767, 910, 959, 294, 1839, 1253, 1979, 2084]. **DNA/RNA** [1253]. **Do** [1178, 1198, 550, 1307, 1520, 2186, 510, 2048, 182]. **DOC** [1048]. **Doctor** [1931]. **Document** [959]. **Documenting** [1163, 1609]. **Does** [1450, 474, 651, 1705, 1388, 344, 266, 2065, 1560, 68]. **Dolphin** [2025, 586, 208, 233, 312, 140]. **Dolphins** [1478, 454, 689, 1084, 785, 1247, 228, 1038, 216, 725, 1395, 300]. **Domain** [886]. **Domains** [1801, 1220]. **Domestic** [354, 1407]. **Dominance** [1258]. **Dominant** [1473]. **Dominated** [243, 1159, 1233, 65, 124]. **Dominates** [398]. **Donate** [263]. **Donsol** [1202]. **Don't** [789]. **Doubt** [339]. **Down** [922, 742, 1187]. **Downward** [2097]. **DPSIR** [379]. **Draft** [398]. **Drag** [1379, 1395]. **Dredge** [1062]. **Dredging** [308]. **Dreissena** [1544]. **Dreissenids** [1544]. **Drifter** [1526]. **Drifting** [2042]. **Drinking** [616]. **Drive** [1219, 2090, 82]. **Driven** [375, 805, 1349, 629, 2179, 372, 1946, 2212, 1860, 1756, 2023, 1801, 1945, 2077, 2052, 402]. **Driver** [1807, 1203]. **Drivers** [1642, 1364, 1609, 1956, 1512, 949, 1962, 1724, 866, 1786, 357, 1506, 942, 664, 676, 89, 72]. **Drives** [304, 887, 313, 1373, 462, 2157]. **Driving** [2194, 121, 2101]. **Drone** [915, 1250, 1931]. **Droplet** [1064]. **Drought** [733]. **Drove** [1920]. **Drug** [1332]. **Dry** [423, 329]. **DSi** [2027]. **DTPA** [1042]. **Dual** [886, 398]. **dubia** [1002]. **Due** [1211, 1711, 1552, 4]. **Dugongs** [774]. **Dulce** [644]. **Dumping** [1062]. **Dunaliella** [1242, 325, 12]. **Dune** [1472]. **Durafet** [811]. **Duration** [2007, 1099]. **During** [2134, 1747, 1529, 1260, 1736, 1182, 1655, 1458, 1359, 1241, 1649, 1664, 1310, 1710, 1494, 2073, 1872, 1258, 1261, 1419, 1131, 1318, 1098, 1636, 2105, 1162, 373, 326, 986, 728, 733, 457, 858, 932, 313, 866, 912, 686, 428, 571, 368, 310, 757, 813, 600, 183, 374, 652, 943, 667]. **Durvillaea** [1552]. **D'Urville** [1195]. **Dust** [1490, 372, 427, 335, 488, 605, 754, 609, 329, 482, 549, 534, 943, 106, 71]. **Dutch** [2209, 1731, 543]. **duyung** [774]. **Dwarf** [1534]. **Dwelling** [477]. **Dye** [1466]. **Dynamic** [1150, 507, 521, 1203, 1270, 1494, 2157, 1376]. **Dynamical** [1586]. **Dynamics** [617, 1166, 1826, 1112, 921, 1308, 1684, 1518, 257, 867, 1850, 1146, 805, 1628, 1467, 1105, 1681, 1922, 873, 1294, 615, 2080, 1418, 637, 415, 1341, 357, 1682, 1730, 821, 897, 1202, 571, 739, 2015, 451, 723, 1026, 1086, 400, 883, 2070, 1419, 469, 1758, 943, 2130, 761, 1256, 1741, 849, 159, 108, 142, 106, 146].

**Dynamite** [434]. **Dynamite-Fishing** [434].

**Early** [2093, 1181, 1340, 2175, 573, 917, 1316, 1344, 2132, 1427, 806, 1449, 1082, 1960, 1227, 260, 1162, 51]. **Earth** [1968, 1097, 1078, 1356, 916, 1897]. **Earthquake** [1467]. **East** [1737, 1467, 1076, 735, 1877, 1706, 1359, 1274, 427, 1548, 1066, 357, 1667, 1538, 494, 627, 1390, 754, 2099, 2128]. **Eastern** [536, 1278, 444, 595, 1458, 185, 1832, 454, 253, 493, 1022, 382, 557, 1572, 140, 217, 1329, 516, 45, 1146, 1094, 1655, 1104, 1854, 1430, 1582, 372, 932, 1595, 364, 335, 1429, 572, 1689, 488, 1730, 755, 1153, 634, 838, 609, 2157, 1777, 510, 938, 1128, 1613, 1235, 1079, 702, 482, 549, 701]. **Eating** [1988]. **EBVs** [1142]. **Echinoderes** [7, 120]. **Echinodermata** [1871]. **Echinoderms** [1656]. **Echinometra** [1186]. **Echoview** [95]. **EchoviewR** [95]. **Ecklonia** [931]. **Eco** [1484, 567]. **Eco-Engineered** [1484]. **eco-evolutionary** [567]. **Ecocline** [1273]. **Ecological** [340, 1478, 649, 291, 1598, 1799, 798, 1652, 371, 497, 171, 1546, 2138, 2159, 1724, 599, 1721, 496, 2023, 680, 1755, 1991, 2207, 2197, 2132, 779, 1815, 239, 1306, 1812, 1874, 1594, 837, 2035, 2024, 468, 1489, 701, 1369, 38, 72]. **Ecology** [1510, 1703, 235, 792, 1448, 614, 560, 1704, 844, 1201, 1008, 353, 1213, 980, 562, 838, 918, 952, 1275, 1508, 1658, 1603, 1265, 296, 1, 97]. **Economic** [2057, 1601, 545, 1614, 861, 1647, 1502, 2024, 701, 1057, 148, 2006]. **Economical** [915]. **Economics** [385, 170]. **Economy** [1639, 2090, 2072, 2109, 1796, 1727, 1395]. **Ecophysiological** [1962]. **Ecophysiology** [1374, 2205]. **Ecosystem** [1570, 922, 1626, 1867, 690, 1703, 2126, 2089, 1072, 1590, 443, 843, 223, 1678, 826, 2195, 197, 383, 1856, 1676, 2111, 881, 1400, 1601, 2066, 209, 525, 696, 1248, 1372, 1670, 1105, 1003, 947, 450, 1595, 1295, 1307, 1649, 1409, 1715, 1339, 484, 1920, 415, 824, 295, 335, 1697, 1646, 1614, 512, 1751, 253, 446, 1630, 2044, 995, 2132, 754, 1306, 598, 1055, 2038, 1416, 1874, 1651, 1976, 1050, 317, 1647, 2035, 1083, 2088, 2024, 1728, 476, 1217, 1290, 1489, 2104, 612, 514, 645, 1355, 1665, 1849, 1471, 70, 31, 21, 110, 39, 17]. **Ecosystem-Based** [843, 1595, 1614, 2044, 1416, 2035, 2104]. **Ecosystem-Wide** [1920]. **Ecosystems** [2089, 617, 502, 792, 1358, 1859, 955, 377, 524, 2086, 734, 1397, 2154, 315, 185, 830, 1268, 864, 386, 650, 364, 1768, 1663, 862, 1390, 477, 1568, 825, 2160, 2014, 2099, 2020, 647, 234, 772, 693, 543, 1926, 1983, 506, 1508, 585, 2012, 1, 75, 124, 116]. **Ecotones** [681]. **Ecotoxicological** [1074]. **Ecotypes** [306, 2164]. **Ecuador** [1296, 263, 1298, 1613]. **Ecuadorian** [1481]. **Eddies** [2166, 357, 1586]. **Eddy** [997, 1217]. **Eddy-Covariance** [1217]. **Edge** [1234, 1061, 821, 1464, 317]. **Editorial** [1014, 524, 993, 803, 675, 1496, 1363, 865, 1085, 2156, 797, 1674, 538, 851, 1421, 1230, 848, 1477, 1525, 2120, 424, 1596, 1568, 754, 2160, 2034, 1738, 385, 2205, 623, 1658, 1265]. **eDNA** [1064, 2195]. **Education** [2089, 1209, 1855, 1474]. **Educational** [966]. **Eelgrass** [486, 1734, 197, 1476, 1405, 1643]. **EEZ** [2126]. **Effect** [1747, 1706, 375, 1879, 1842, 744, 1428, 551, 851, 1823, 236, 1316, 1413, 292, 1047, 1440, 1141, 1049, 1042, 1976, 1894, 210, 694, 47]. **Effective**

[700, 1742, 1577, 936, 1245, 1739, 1983, 588, 163]. **Effectiveness**  
 [1754, 542, 1063, 370]. **Effects**  
 [2067, 1543, 1776, 1482, 593, 214, 716, 1432, 1956, 2069, 2110, 2079, 1383,  
 1601, 1348, 1788, 1268, 541, 1030, 1793, 188, 441, 169, 2103, 1530, 809, 1388,  
 1618, 1339, 325, 1377, 711, 1251, 1484, 1569, 1801, 1074, 2132, 739, 1327, 609,  
 402, 1455, 1986, 1479, 557, 1387, 1457, 1157, 1607, 1080, 2006, 256, 556, 1805,  
 1258, 1738, 2070, 1817, 413, 702, 801, 244, 125, 126]. **Efficiency**  
 [855, 1013, 436, 141]. **Efficient** [1485, 1313]. **Effort** [2111, 1875, 1621, 1407].  
**Efforts** [1010, 338, 2180, 1539]. **Eguchipsammia** [749]. **Elasmobranchs**  
 [844]. **Elbe** [654]. **Electrochemical** [991, 1107]. **electrode** [152].  
**Electrodes** [811]. **Electrogenic** [520]. **Electron** [2119, 1741]. **Electrospray**  
 [447]. **Element** [1968, 1078, 1356, 916, 1447]. **Elemental** [1852, 1752, 1659].  
**Elementary** [1862]. **Elements** [1097, 744, 1996, 1907, 621]. **Elephant**  
 [1059]. **elephas** [989]. **Elevated**  
 [1529, 2144, 1543, 982, 1321, 1392, 1388, 842, 1427, 1032]. **Elevated-CO**  
 [1529]. **Elicit** [314]. **Elicitors** [284]. **Eliminating** [2090]. **Elkhorn**  
 [2146, 1327]. **Elliott** [1657]. **Elusive** [1385]. **Embayment** [2137]. **Embolism**  
 [1845]. **Embracing** [1138]. **Embryos** [1997]. **Emergence** [890, 1559].  
**Emergency** [1816]. **Emergent** [328, 1379]. **Emerging** [411, 2156, 2190].  
**Emigration** [216]. **Emilia** [244]. **Emilia-Romagna** [244]. **emiliana**  
 [487, 1119, 158, 1077, 205, 1141]. **Emission** [2053, 1303]. **Emissions**  
 [1957, 1969, 635, 568, 2210, 4]. **EMODnet** [1779]. **Emphasis** [1727].  
**Emphasizes** [1324]. **Emphasizing** [597]. **Empirical**  
 [618, 786, 1998, 1489, 875]. **Employing** [641]. **Enable** [1424]. **Enables** [895].  
**Enchantment** [1038]. **Enclosed** [249, 2123, 570, 65]. **End**  
 [1637, 1957, 1811, 2024, 2172]. **End-Members** [1637]. **End-to-End**  
 [1811, 2024]. **Endangered** [263, 673, 1620, 1810, 918, 2135, 172, 132].  
**Endosymbionts** [757]. **Endothelial** [1240]. **Enduring** [2092]. **Energetic**  
 [187, 1060]. **Energetics** [904]. **Energy**  
 [994, 1360, 403, 1463, 1270, 1897, 1622, 1395, 128, 73, 88]. **Energy-Rich**  
 [1360]. **Engagement** [431, 1815, 574, 318]. **Engaging** [554, 1502]. **Engine**  
 [1465]. **Engineer** [1406, 1751]. **Engineered** [1484]. **England** [450]. **English**  
 [2078]. **Enhance** [2168, 1425, 1918, 2003, 1870]. **Enhanced**  
 [198, 999, 1757, 2036, 17, 974, 1427, 1886, 1803, 299]. **Enhancement** [517].  
**Enhances** [718]. **Enhancing** [848, 370]. **Enough** [1748, 96]. **Enrich** [1437].  
**Enrichment** [405, 1238, 626, 929, 440, 757]. **Ensemble** [1961, 1370]. **ENSO**  
 [1458, 1852, 2157]. **Entanglement** [1099]. **Entire** [960]. **Entrained** [817].  
**Entrainment** [1090]. **Enveloping** [1231]. **Environment**  
 [443, 2048, 1578, 1081, 350, 578, 1720, 522, 1008, 1530, 987, 576, 905, 1429,  
 233, 1246, 1160, 440, 1449, 1996, 437, 346, 1025, 1408, 1147, 64, 153, 48].  
**Environmental**  
 [1173, 548, 1941, 1064, 1009, 1799, 2095, 394, 181, 1575, 640, 2057, 2195, 1163,  
 414, 968, 804, 2148, 1956, 1070, 1383, 1512, 947, 765, 866, 1493, 328, 1286, 1292,  
 2137, 1778, 1336, 102, 908, 1087, 2015, 379, 1034, 276, 1843, 1134, 834, 1929,

2133, 829, 1189, 1188, 1932, 959, 775, 1894, 1115, 378, 772, 924, 468, 2198, 645, 504, 2130, 996, 1839, 1253, 1979, 221, 2084, 38, 70, 89, 73, 145, 85, 55, 83].

**Environmentally** [2023, 697]. **Environments** [904, 795, 1363, 935, 1085, 1962, 1729, 355, 446, 579, 729, 1874, 1539, 1580, 42].

**Enzymatic** [692]. **Enzyme** [258]. **Enzymes** [2184, 36, 44]. **EOVs** [1142].

**EPA** [1563]. **Epibenthic** [840, 1938]. **Epibenthos** [2130]. **epifauna** [392].

**Epifaunal** [1275]. **Epigenetic** [2025, 2184]. **Epigenetics** [496]. **Epigenome** [350]. **Epilithic** [222]. **Epinephelus** [883]. **Epipelagic** [824]. **Epiphyte** [135]. **Epiphyte-cover** [135]. **Epiphytes** [187]. **Epiphytic** [1418, 1588].

**Epishelf** [476]. **Episodes** [2093, 1473]. **Episodic** [1152]. **Epitopes** [783].

**equations** [18]. **Equatorial** [726, 2180]. **Equatorward** [1963]. **Era** [1859, 2046, 1221, 1571]. **Erie** [257, 867, 1146, 790, 2194, 616]. **Erosion** [1211, 1472, 1798]. **Erosional** [245]. **Errors** [2078]. **Eruptions** [1959].

**Escarpmnts** [245]. **Eschrichtius** [1260]. **Essential** [1884, 236, 1142]. **EST** [2183]. **EST-SSR** [2183]. **Establishing** [282]. **Establishment** [1434].

**Estates** [769]. **Esterase** [777]. **Estimate** [997, 956, 1897, 526, 875].

**Estimates** [1800, 396, 1191, 596, 383, 1748, 1523, 656, 1588, 2052, 620, 1212, 1376, 140, 18].

**Estimating** [1722, 220, 741, 86, 99, 1180, 1239, 1447]. **Estimation** [2025, 1259, 1785, 1685, 2204, 2061, 898].

**Estuaries** [1703, 1450, 2129, 203, 1651, 1818, 1604, 416, 9, 39]. **Estuarine** [201, 558, 845, 678, 1232, 1585, 1348, 1793, 745, 555, 2103, 1682, 1746, 233, 561, 723, 216, 210, 119]. **Estuarine/River** [1682]. **Estuary** [1642, 1507, 243, 450, 689, 1945, 451, 535, 1690, 1045, 1553, 1735, 1233, 670, 909, 54, 147, 238, 131, 654, 1584, 1979]. **Estuary-Fresh** [1507]. **Ethics** [1770, 1488]. **ETS** [1241]. **EU** [1230, 1231, 591]. **Eubalaena** [1462, 1099].

**Eucampia** [770, 707]. **Eukaryotes** [1366, 906]. **Eukaryotic** [1685, 1282, 1023, 311, 879, 669]. **Eulerian** [1061]. **Eupercaria** [2091].

**Euphausia** [800]. **euphausiid** [72]. **Euphotic** [1786]. **Europe** [1207, 698, 1575, 1779]. **European** [261, 1617, 466, 703, 1747, 1100, 394, 1487, 564, 1993, 1660, 1287, 1351, 21, 372, 386, 1779, 363, 1950, 500, 1050, 346, 272, 1281, 361, 1835, 688].

**Eutrophic** [906, 1143, 1403, 1825]. **Eutrophication** [1591, 1207, 1676, 881, 1400, 1486, 1453, 1435, 1584, 450, 1428, 1370, 1470, 1222, 1494, 1067, 1929, 1522, 1699, 801, 1836, 4]. **Evaluate** [1579, 608].

**Evaluating** [180, 798, 809, 1409, 1862, 1802, 722, 382, 857, 1576, 1647, 1858, 1466].

**Evaluation** [479, 490, 1037, 804, 553, 807, 349, 1882, 518, 812, 745, 1204, 1175, 447, 1692, 1333]. **evanescens** [331]. **even** [16]. **Event** [1314, 1140, 1920, 1653, 2073, 710, 106, 714]. **Events** [1342, 2022, 1876, 888, 527, 2170, 1813, 2136, 722, 2132, 408, 2157, 535, 1086, 510, 612, 259, 943, 161].

**Every** [1396]. **Evidence** [951, 1531, 1078, 822, 1793, 2151, 1413, 1187, 1577, 310, 1381, 854, 205, 1843, 685, 556, 1932, 544, 210, 2150, 1147, 28].

**Evidence-Based** [1932]. **Evidences** [207]. **Evolution** [1158, 487, 1298,

1488, 1961, 637, 252, 1215, 1220, 559, 2052, 829, 1935, 456, 51, 5].  
**Evolutionary** [2091, 953, 567]. **Evolving** [1743, 1914]. **Ex** [853]. **Ex-vessel** [853]. **Exacerbates** [1618]. **Exact** [773]. **Exaipsasia** [607]. **Examination** [511, 767, 132]. **Examining** [845, 1702]. **Example** [2089, 586, 1059, 666].  
**Examples** [1383, 1771, 1727, 111]. **Exchange** [921, 1992, 1945, 269, 1387, 1803, 2128]. **Exchanges** [1217]. **Excitation** [1212]. **Exclusion** [792]. **Exclusive** [545]. **Excreted** [833]. **Exemplary** [1474]. **Exercise** [1299]. **Exerts** [188]. **Exhaust** [1070]. **Exhibit** [788, 714].  
**existing** [44]. **Exometabolome** [2095]. **Exometabolomic** [205].  
**Exopolymer** [1432, 571, 337, 1137]. **Exopolymeric** [1033]. **Expand** [1913].  
**Expanded** [1002]. **Expanding** [962, 841]. **Expansion** [507, 1105, 75, 1464, 1083, 1333]. **Expected** [1714]. **Expecting** [1574].  
**Expeditions** [1944, 2208]. **Expendable** [766, 1917]. **Experience** [1953].  
**Experiment** [881, 1113, 1036, 531, 609, 612, 482, 549, 56, 183].  
**Experimental** [423, 1158, 125, 1927, 427, 1004, 788, 1108, 1087, 1955, 1183, 754, 854, 556, 990, 302, 702, 801, 1162]. **Experimentally** [1321].  
**Experiments** [1244, 1551, 932, 1292, 459, 761, 71, 67]. **Expert** [1626, 2159].  
**Explain** [2153, 359]. **Explaining** [1817]. **Explanatory** [968]. **Explants** [1341]. **Explicit** [947]. **Exploitation** [832, 734, 1044, 748, 695, 1076, 806, 1960]. **Exploited** [1768, 1011, 2187].  
**Exploration** [1804, 1178, 1582, 1449, 1998, 1641]. **explorations** [112].  
**explore** [145]. **Explored** [995]. **Exploring** [1675, 690, 1985, 1806, 1930, 1846, 1270, 980, 579, 780, 1955, 1040, 1771, 1818, 509, 1149]. **Export** [2134, 1135, 1612, 505, 2192, 1354, 1013, 225, 1989, 652]. **EXPORTS** [225].  
**Exposed** [2041, 473, 929]. **Exposure** [1321, 1765, 842, 1589, 1127, 2053, 1032, 175, 88]. **Exposures** [1183].  
**Express** [1769]. **Expressed** [604, 1131]. **Expression** [1191, 1782, 817, 604, 1204, 1589, 942, 751, 743, 1131, 2135]. **Expulsion** [1041]. **Extended** [655]. **Extending** [1107]. **Extension** [1073, 1855].  
**Extensions** [2091]. **Extensive** [1583, 2005, 2073]. **Extent** [1925, 677, 2070].  
**External** [1800]. **Extinction** [1552]. **Extracellular** [196, 692, 1237, 433].  
**Extract** [711]. **Extraction** [804, 1226, 1186]. **Extrapolation** [947].  
**Extratropical** [1911]. **Extreme** [1963, 1827, 2022, 1876, 1363, 935, 1948, 1974, 866, 987, 1920, 259, 1280].  
**Extremes** [2126, 1263, 775]. **Eye** [309, 1834].

**Fabrication** [1284, 2033]. **Face** [1243, 938, 1128]. **Facies** [636]. **Facilitate** [1263, 1381]. **Facilitated** [1278]. **Facilitates** [719]. **facing** [128]. **Factor** [1240, 222]. **Factories** [2130]. **Factors** [1343, 1948, 263, 328, 1007, 1772, 318, 2198, 412, 1995, 102, 83]. **FADs** [755, 680]. **Fails** [937]. **Failure** [1100, 564, 1154, 1231]. **Failures** [1195].  
**FAIR** [1905]. **Faith** [554]. **Faith-Based** [554]. **falciformis** [237]. **Fall** [432].  
**Fallen** [1684]. **Fallow** [1159]. **Falls** [1942, 2214, 124]. **False** [2108]. **Family** [889, 1994, 15]. **Fan** [2157]. **Fanworm** [2084]. **Far** [1507]. **Farm**



[691, 629, 1958, 1369]. **Farmed** [1958]. **Farming** [1575, 592]. **Farms** [2041, 1719]. **Faroe** [1090, 2023]. **Fast** [952, 1636, 100]. **Fat** [1845]. **Fate** [536, 1393, 184, 1587, 683, 2163, 225, 2123]. **Fatty** [1360, 236, 859, 1454, 2145]. **Fault** [1925]. **Fault-Associated** [1925]. **Fauna** [343, 640, 1564, 1574, 1263, 1929]. **Faunal** [1641, 130]. **faveolata** [139]. **FDOM** [334]. **Fe** [1141, 287, 684, 1978, 1945, 1019, 1141, 321, 1798]. **Fe-** [321]. **Fe-Binding** [287]. **Fe-Ligands** [1141]. **Feasible** [1739]. **Features** [1075, 1545, 1484, 2165, 2213, 1666, 977, 1527]. **February** [161]. **Fecal** [1456, 490, 1696]. **fed** [1456]. **Feed** [1456, 256, 123]. **Feedbacks** [521, 504]. **Feeding** [1556, 1448, 678, 805, 659, 2142, 1483, 729, 1712, 1863, 90]. **Feeds** [270]. **Feet** [1714]. **female** [41]. **Fenton** [336]. **Fenton-Mediated** [336]. **Ferric** [428]. **Ferrioxamine** [374]. **Ferrojan** [285]. **Ferrozine** [812]. **Fertilization** [1490, 1241, 457, 1144, 1261]. **Fertilized** [1995]. **Fetches** [1827]. **Fiber** [937]. **Fiberglass** [2033]. **Fibroblasts** [711]. **fibropapillomatosis** [134]. **Fibrous** [1177]. **Fidelity** [912, 1202]. **Fiducial** [2042]. **Field** [882, 411, 1856, 1850, 1420, 971, 1292, 1645, 1619]. **Field-Based** [1420, 971]. **Fields** [1847]. **Fieldwork** [338]. **Fifty** [1748, 1055]. **Fiji** [391, 136, 1673]. **Filamentous** [313, 157]. **Filaments** [412]. **Filling** [1513]. **Films** [576]. **Filter** [1132]. **Filters** [937]. **Filtration** [937, 804]. **fimbria** [1669]. **Fin** [2007, 659, 1765, 2193]. **Finance** [1513, 977]. **Financial** [1306]. **financing** [19]. **Findings** [1656, 1451]. **Fine** [268, 1414, 1695, 845, 1582, 1069, 1569, 2178, 1698, 998, 368, 871, 924, 709, 2056, 977, 1636]. **Fine-Grained** [924]. **Fine-Scale** [1414, 1695, 1069, 1569, 1698, 368, 871, 709, 977, 1636]. **Finfish** [730, 1159, 983, 2137]. **Fingerprinting** [1729]. **fingerprints** [165]. **Fingers** [2092]. **Finland** [1522, 1699, 2151, 1153]. **finmarchicus** [236, 359]. **Finnish** [1333]. **Firms** [200]. **First** [1414, 991, 490, 1856, 200, 2139, 195, 779, 124, 1641, 687, 29, 138, 156, 2075].

**Fish** [340, 2153, 1423, 1706, 1343, 590, 1703, 1185, 962, 845, 691, 865, 197, 2091, 1337, 1459, 968, 1028, 961, 1507, 1198, 1973, 1234, 2185, 1017, 1093, 403, 2023, 1388, 364, 639, 2129, 1608, 978, 755, 2076, 680, 1215, 1659, 1630, 2132, 1581, 1990, 930, 967, 1851, 2073, 2174, 1607, 829, 1994, 546, 566, 2062, 1872, 1773, 1647, 1602, 853, 975, 1615, 1169, 1951, 2124, 2191, 1280, 416, 1735, 2187, 1979, 1769, 141]. **Fisher** [224, 1598, 633, 246, 434, 134, 318]. **Fisheries** [2117, 1100, 224, 1867, 2059, 1776, 564, 1762, 913, 810, 1639, 734, 1044, 892, 1398, 805, 1198, 1981, 1595, 1068, 1010, 983, 835, 545, 354, 273, 796, 957, 1230, 2196, 1853, 634, 253, 1122, 1630, 672, 1596, 735, 1197, 1501, 598, 806, 840, 717, 2006, 1621, 861, 1231, 1594, 2014, 1702, 1647, 318, 750, 853, 975, 1858, 1951, 693, 2104, 591, 2085, 274, 1029, 687, 701, 251, 1835, 1407, 989, 380, 1624, 149, 160, 121, 404, 2124]. **Fishermen** [1546, 672, 977]. **Fishers** [680, 1369]. **Fishery** [167, 1151, 1063, 899, 525, 696, 307, 1372, 1670, 2063, 1844, 246, 983, 1768, 818, 237, 954, 767, 2083, 827, 1076, 602, 345, 1831, 1174, 557, 685, 619, 701]. **Fishes** [1722, 1498, 1360, 1187, 1118, 775, 1454, 1058, 970, 996, 51, 116].

**Fishing**

[217, 1334, 2059, 993, 1856, 542, 1601, 899, 1498, 2167, 2043, 765, 1844, 434, 1646, 1336, 1099, 253, 1955, 995, 1174, 2133, 1998, 2062, 1502, 1407, 24].  
**Fishmeal** [270]. **Fishy** [1977]. **fistula** [749]. **Fit** [303, 1630, 1858]. **Fitness** [593, 891, 1189]. **Five** [118, 192]. **Fixation** [1039, 1020, 923, 880, 572, 1689, 793, 382, 1080, 1051, 1741, 118]. **Fixed** [745, 644]. **Fixed-Nitrogen** [644]. **Fixing** [937]. **Fjord** [1208, 1720, 661, 1495, 1194, 668, 469, 1600, 109, 1389]. **Fjords** [1464, 102].  
**Flagellate** [176, 12]. **Flat** [1452, 2039]. **Flatworm** [1988]. **flavescens** [1389].  
**Flaws** [1762, 913, 1398]. **Fleet** [307, 2133]. **Flexibility** [1842]. **Flipping** [1511]. **Float** [1367]. **Floating** [570, 2017, 578, 1526, 683]. **Floats** [1255].  
**Flocculent** [1159]. **Flood** [272, 161]. **Flooding** [244]. **Floodplain** [1706, 1539]. **Floods** [2134]. **Floor** [1576]. **Flores** [557]. **Florida** [2141, 1225, 1628, 1737, 2103, 852, 764, 1193, 1254, 674]. **Flounder** [1156].  
**Flow** [2048, 214, 2136, 316, 849, 716]. **Flower** [2135]. **flowing** [9]. **Flows** [499]. **Fluctuating** [1929]. **Fluctuations** [1680, 1540, 483, 2023, 2130].  
**Fluid** [416, 1586]. **FluidCam** [1985]. **Fluids** [1809]. **Fluorescein** [1536].  
**Fluorescence** [513, 756, 2058, 174, 213, 763]. **Fluorescence-based** [174, 213]. **Fluorescent** [182, 1536, 942, 168]. **Fluorometry** [1785].  
**Flushing** [1976]. **Fluvial** [494]. **Flux** [1326, 2066, 1732, 1999, 1696, 530, 1863, 534, 124]. **Flux-Feeding** [1863].  
**Fluxes** [1135, 247, 1895, 243, 2204, 1180, 1047, 2045, 2008, 1886, 9, 40, 65].  
**Focus** [1895, 1199, 1019]. **Focused** [2152, 998]. **Focusing** [299]. **Folian** [1832]. **Folian-cv1** [1832]. **Foliated** [1832]. **Follow** [692, 977]. **Following** [1090, 1467, 1140, 246, 1944, 2208, 661, 714, 1408, 106, 329]. **Food** [64, 330, 593, 1312, 1585, 1017, 1610, 403, 1972, 421, 1357, 1270, 446, 1710, 609, 1851, 179, 1994, 1511, 1050, 1071, 975, 44, 109]. **Food-Web** [446, 1050, 109]. **Footage** [1402]. **Footprint** [2133, 100]. **Footprints** [133].  
**Forage** [1017, 1647]. **Foraging** [904, 946, 1267, 2010, 101, 310, 455, 838, 729, 1623, 119, 141]. **Foraminifer** [1937]. **Foraminifera** [1275, 456, 1310]. **Foraminiferal** [1582, 998]. **Forced** [1439]. **Forces** [567, 317]. **Forcing** [996, 156]. **Forcings** [1298, 415]. **Fore** [266]. **Fore-Reefs** [266]. **Forecast** [779, 608]. **Forecasting** [1908, 2086, 827, 726, 1892, 2032]. **Forecasts** [1816, 1911, 1557, 1638, 1068, 1961, 693]. **Foreign** [2167]. **Forest** [1963, 1530, 316]. **Forests** [1121, 635]. **Form** [705, 2160]. **Formal** [2089, 1630]. **Formation** [1294, 920, 1304, 428, 1300, 2052, 436, 193, 321, 1098]. **Formigas** [2165, 2213].  
**Forming** [2022, 1876, 931, 1980, 1285, 1263]. **Forms** [1102, 972, 1233, 90].  
**Formulations** [655]. **fornicata** [1406, 1243]. **Forward** [1056, 2190, 1709].  
**Fossil** [1583, 1033, 136]. **Foster** [1791]. **Fostering** [163, 806]. **Foundation** [1704]. **Four** [226, 1964, 1554, 684, 1214, 1200, 1050, 1563]. **Fourier** [321].  
**Fourier-Transform** [321]. **Fourmanoir** [1930]. **Fractionation** [1452, 770, 707, 107]. **Fractions** [396, 1386, 1582]. **Fracture** [595].

**Fragmentation** [576]. **Fragmented** [1745]. **Fragments** [823]. **Fram** [1125, 658, 1655, 1359, 1730, 1777, 791, 1155, 1338]. **Frame** [1377].  
**Framework** [1799, 776, 1249, 1224, 420, 307, 551, 1068, 215, 1916, 384, 980, 379, 1950, 276, 806, 346, 1025, 1817, 1935]. **Frameworks** [1142]. **France** [1067]. **Francisco** [16]. **Free** [330, 1102, 1389, 250, 319, 2087, 98].  
**Free-Living** [1102, 1389, 250]. **French** [788, 1790, 1950]. **Frequency** [389, 408, 1632, 970, 1058]. **Fresh** [1507, 184, 2076, 1033]. **Freshet** [530].  
**Freshwater** [951, 1496, 2103, 537, 1881, 1508, 1789]. **Front** [531, 742].  
**Frontal** [412]. **Frontier** [485]. **Frontiers** [1636, 127]. **Frontlines** [885].  
**Fronts** [742, 119]. **Frøya** [166]. **FT** [321]. **FT-ICR-MS** [321]. **fucata** [1304].  
**Fucoidans** [783]. **Fucoidans** [331]. **Fucus** [188, 331]. **Fuel** [494, 136]. **Fulfill** [753]. **Full** [228, 1904]. **Full-Capture** [228]. **Full-Depth** [1904]. **Fumose** [2148]. **Function** [1404, 1997, 1608, 756, 1517, 2160, 2088, 1132, 84].  
**Functional** [590, 247, 196, 1081, 618, 855, 719, 1304, 748, 695, 686, 859, 681, 1599, 2036, 417, 1106, 2101, 787, 1289, 1769]. **Functionality** [1576].  
**Functioning** [690, 443, 661, 1976, 1050, 39]. **Functions** [986, 1391, 450, 1710, 1728, 32]. **Fundamental** [1745, 129]. **Fungi** [1599].  
**Fungia** [56]. **Fungus** [889]. **furcatus** [527]. **fuscatus** [884]. **Future** [547, 289, 1363, 935, 1684, 614, 560, 1264, 1654, 1442, 2154, 171, 1900, 1453, 1882, 965, 1917, 1949, 1638, 1462, 1480, 1505, 1446, 1385, 460, 2051, 824, 339, 237, 1846, 1913, 1470, 1067, 2186, 1713, 1562, 1904, 1714, 829, 2014, 262, 2087, 1711, 1691, 272, 1115, 2124, 1330, 1095, 1407, 989, 244, 296, 14, 61, 164, 75, 19, 162]. **Futures** [995].

**Ga** [1996]. **gaditana** [711]. **Gadus** [1413]. **Galápagos** [57, 263, 1701, 1210, 1175]. **Galeocerdo** [1695]. **gallica** [475].  
**galloprovincialis** [2041, 60, 1422, 2030, 1034]. **Gammaproteobacterium** [515]. **gammarus** [1747]. **Gannets** [946]. **Gap** [1513, 377, 524, 485, 1894, 1333]. **Gaps** [1575, 1654, 1221, 934, 2113, 950, 908, 2202, 294]. **Garden** [1406, 2135].  
**Gardening** [1879]. **Gas** [832, 1070, 1969, 2163, 1051, 2012, 112]. **Gases** [2008, 1235, 1079]. **Gastrointestinal** [1389]. **Gastropoda** [882, 1597, 1847].  
**Gatekeepers** [1863]. **Gateway** [1125, 1779, 1347, 393]. **Gauges** [2049].  
**Gazul** [2165, 2213]. **Gd** [1042]. **Gdansk** [1132, 2188]. **Ge** [1996]. **Gear** [1595, 1099]. **Gears** [1844, 1998]. **Gel** [658]. **Gelatinous** [1089, 2189, 124].  
**Gender** [721, 381, 1624]. **Gene** [349, 1685, 1997, 817, 604, 1204, 1220, 1589, 743, 2135]. **Generalist** [1473].  
**Generated** [280]. **Generation** [1985, 1249, 1244, 1685, 576, 779, 10]. **Genes** [373, 1148, 604, 1131]. **Genesis** [1517]. **Genetic** [268, 1807, 181, 484, 1148, 1011, 1199, 791, 1617, 1464, 1984, 1324, 1958, 883, 784, 688, 456, 2100, 1789, 85]. **Genetically** [1280]. **Genetics** [648, 1083, 2183, 2203, 45]. **Genome** [458, 2184, 350, 454, 2030].  
**Genome-Wide** [454, 2030]. **Genomes** [398]. **Genomic** [1012, 2036, 1332].  
**Genomics** [1525]. **Genus** [1847, 1352, 891]. **Geo** [632]. **Geoacoustically**

[543]. **Geochemical** [1829]. **Geochemistry** [1097]. **Geodia** [1060].  
**Geoduck** [1266]. **Geographic** [1061, 28]. **Geographical** [410].  
**Geolocation** [884]. **Geologic** [887]. **Geological** [1587, 1813, 1062].  
**Geomorphological** [1515]. **Geomorphometric** [828]. **George** [2101, 725].  
**geospatial** [132]. **Geothermal** [622]. **GEOTRACES** [444, 1329, 463].  
**Geovisualizations** [579, 780]. **German** [1526]. **germanus** [1873].  
**Germination** [1805]. **Ghana** [380]. **Giant** [1878, 589, 1789]. **gigas**  
 [473, 219, 671, 550, 1240]. **Gill** [220]. **Gillnet** [167]. **Gilthead** [808]. **Glacial**  
 [1612, 2118, 1801, 668, 402, 1877, 600, 1798]. **glacialis** [1099]. **Glacially**  
 [2171]. **Glaciers** [1444, 1720]. **Glass** [937]. **Glider**  
 [581, 1578, 2201, 1990, 2127]. **Glider-Compatible** [581, 1578]. **Gliders** [526].  
**GliderTools** [2201]. **Glimpse** [614, 560, 14]. **Global**  
 [2117, 1716, 1816, 1675, 997, 1787, 1890, 1833, 2086, 2046, 1884, 1535, 1015, 61,  
 1196, 1783, 1221, 1764, 2075, 1806, 961, 240, 923, 541, 1917, 2113, 441, 552, 700,  
 1523, 1889, 1961, 355, 1707, 1109, 1791, 752, 910, 1913, 1897, 1171, 1122, 1599,  
 1698, 533, 1991, 2207, 194, 1898, 470, 1812, 1632, 1904, 1934, 1929, 620, 225,  
 1772, 1914, 1910, 1899, 1907, 1824, 1935, 1888, 2124, 1029, 1749, 2012, 34, 1757].  
**Globally** [1663, 232]. **Globe** [1691]. **globosa** [906, 362, 1266]. **GLORES**  
 [700]. **Glucose** [757]. **Glue** [1809]. **Glutamine** [1242]. **Glycan** [783].  
**Glycerolipids** [732]. **Glyoxylate** [1365]. **Go** [1262, 1910]. **GO-SHIP** [1910].  
**Godthåbsfjord** [766]. **Godthabsfjord** [1801]. **Goes** [499]. **goesi** [1322].  
**Going** [1882, 1717, 2199]. **Gold** [1615, 152]. **Golfo** [644]. **Gonadal** [2041].  
**Good** [394, 1721, 276, 645, 96, 111]. **Goods** [209]. **GOOS**  
 [1757, 1277, 1887, 2215]. **Gordian** [687]. **Gorgonian** [2157]. **Gotland**  
 [1153, 510, 1179]. **Governance**  
 [1537, 1679, 2196, 195, 1708, 1411, 563, 1858, 1145, 149, 48, 1231]. **GPS**  
 [1308]. **GPS-Tracked** [1308]. **Gradient**  
 [201, 902, 1036, 1617, 963, 1986, 109]. **Gradients**  
 [590, 1009, 1319, 513, 1189, 1711, 623, 504, 85, 77]. **Grained** [924]. **Gran**  
 [1310]. **Grand** [6, 1, 91, 523, 1335, 8, 61, 2, 1840, 968]. **Grande**  
 [1718, 1753, 2048]. **granii** [191]. **granulosa** [56]. **Gravid** [368]. **gravida**  
 [1285]. **Gray** [1260]. **grayi** [1840]. **Grazers** [941]. **Grazing**  
 [1642, 1172, 292, 218, 597, 205, 1650, 694]. **Great**  
 [1456, 1112, 1748, 1467, 495, 308, 1073, 1554, 1214, 353, 714, 976, 1124, 1539].  
**Greater** [1476]. **Greece** [534, 299]. **Greek** [103]. **Green**  
 [942, 918, 1868, 489, 134]. **Greenhouse** [1969, 2008, 1235, 1079]. **Greenland**  
 [766, 794, 1555, 1841, 1066, 1593, 668, 1877, 1606]. **Griffith** [2181]. **GrIOOS**  
 [1606]. **griseus** [1657]. **Gross** [189]. **Ground** [352, 659, 455, 1744, 135].  
**Grounds** [2142, 720, 115]. **Groundwater** [2076, 2027]. **Group**  
 [590, 810, 1571, 1069, 1301, 762]. **Grouper** [2117, 883]. **Groups**  
 [596, 698, 2091, 1956, 457, 1483, 533, 736]. **Growing** [1423, 2162]. **grown**  
 [157]. **Growth**  
 [1642, 330, 593, 660, 671, 923, 1973, 483, 1017, 188, 1720, 1240, 1388, 353, 236,  
 2076, 292, 1506, 1614, 1667, 1574, 1492, 927, 1427, 1327, 1947, 1200, 972, 1283,

256, 284, 1805, 1708, 1380, 1549, 381, 482, 549, 2081, 1305, 1808, 492, 90, 3, 170].  
**Grunts** [2091]. **Guanabara** [1553]. **Guánica** [1234]. **Guanlan** [1661].  
**Guard** [946]. **Guaymas** [130, 907]. **Guidance** [2169]. **Guide** [1966, 533].  
**Guidelines** [1988, 431]. **Guinea** [380, 1010, 1412, 2180]. **Gulf**  
[1706, 1366, 1371, 2111, 1546, 706, 1412, 1180, 2192, 2129, 1829, 1266, 2036,  
722, 508, 1320, 2163, 775, 1774, 55, 1083, 1623, 725, 380, 1097, 606, 2154,  
1609, 1640, 1105, 1267, 1534, 140, 1860, 987, 1069, 738, 603, 1153, 76, 453,  
1671, 146, 1594, 7, 120, 1522, 1699, 312, 2115]. **Gun** [785]. **Gut** [1997].  
**Gymnocranius** [309]. **Gymnodinium** [1220]. **Gyre**  
[615, 1282, 1061, 1023, 183, 150, 958, 1265]. **Gyres** [1169, 81].

**H** [1161, 1103, 1036, 711]. **H.** [1794]. **Habitat**  
[2022, 1876, 931, 613, 1150, 1151, 1784, 1337, 805, 307, 1681, 720, 1267, 941,  
369, 1004, 462, 237, 755, 1574, 689, 758, 677, 930, 963, 1007, 2002, 266, 601, 442,  
825, 437, 546, 177, 1643, 794, 540, 267, 543, 1539, 1580, 1252, 1623, 1665, 88].  
**Habitat-Based** [613]. **Habitat-Forming** [931]. **Habitats**  
[1867, 962, 1482, 1021, 839, 1746, 1742, 2018, 1627, 2171, 1275, 489, 610, 21].  
**Haddock** [1834]. **Haemulidae** [2091]. **Hainan** [1829]. **Hake** [417].  
**Halichondria** [1341, 1794]. **Haliclona** [1441]. **Haliotis** [49, 20]. **Halobates**  
[1873]. **Halong** [1653]. **Halophyte** [475]. **Hammerhead**  
[495, 2181, 2139, 1252]. **Hamper** [806]. **Handling** [1966, 1087, 514].  
**HaNikra** [1123]. **Haplosclerida** [781, 1441]. **Happening** [2022, 1876].  
**Happy** [1714]. **Haptophyta** [1088, 1065]. **Harassment** [312]. **Harbor**  
[2129, 1409]. **Harbors** [1014, 1120]. **Harbour** [606]. **Hard**  
[483, 1159, 1282, 419]. **Hard-Bottom** [1159]. **Hardware** [855]. **harengus**  
[1659]. **Harmful**  
[1716, 2050, 1296, 1481, 1340, 1251, 1928, 1469, 2073, 1324, 1865, 1111].  
**Harmonized** [1625, 578]. **Harnessing** [2159, 110, 2145]. **Harvest**  
[2083, 598]. **Harvested** [816]. **Harvesting** [2121, 1751]. **Harvey** [2135].  
**Hatching** [1538]. **Hatchling** [715, 1193]. **Hatchlings** [1737, 890]. **Hatteras**  
[453]. **Hatton** [1537]. **Hawai'i** [888, 1697, 2016, 2033, 871, 1692]. **Hawaiian**  
[590, 2108, 1093, 1868, 104]. **Hazard** [628, 1740]. **Hazards**  
[1814, 1638, 1034, 227, 272]. **Healing** [1809, 885]. **Health**  
[377, 524, 2026, 1676, 1196, 1557, 512, 915, 2157, 501, 964, 251, 585, 1173].  
**Heard** [2094, 1995, 1798]. **Heat**  
[1694, 1895, 2119, 1732, 2028, 240, 628, 1524, 1957, 988, 1897, 1881, 1041, 1589].  
**Heating** [1687]. **Heatwave**  
[1678, 1948, 1878, 1974, 1962, 2175, 1961, 2073, 1872, 1552]. **Heatwaves**  
[1963, 1694, 2197, 813, 2200]. **Heaviy** [343]. **Heavy** [1415, 1927, 2074].  
**Heavy-Metal-Resistant** [1927]. **Hebrides** [1548, 796]. **Hediste** [1030].  
**Heel** [1302]. **helgolandicus** [359]. **Help** [1199, 430, 1766, 871, 123]. **helps**  
[41]. **Hemocyanin** [2150]. **Hemocytes** [1832]. **herbicide** [12]. **Herbivore**  
[792, 1566, 2021]. **Herbivores** [2176, 2146, 963]. **Herbivorous**  
[340, 486, 1337, 1712]. **Herbivory** [1210, 324, 540]. **Hermaphrodite** [1191].

**Hermatypic** [198]. **Herring** [1659]. **Hesionidae** [1942, 2214].  
**Heterogeneity** [1576, 1275]. **Heterogeneous** [1546, 630, 729, 2150].  
**Heterotrophic**  
 [1190, 692, 415, 1365, 572, 1689, 293, 583, 2206, 1293, 1455, 212].  
**Heterotrophy** [768]. **Hexacorallia** [580, 1771]. **Hexanchus** [1657]. **HF**  
 [500]. **HFNI** [389]. **Hidden** [1795]. **Hierarchical** [228]. **High** [1827, 997,  
 654, 956, 1024, 886, 1143, 349, 191, 1925, 1144, 719, 1957, 277, 1172, 824, 1285,  
 454, 1367, 1847, 2136, 1336, 1742, 820, 622, 714, 530, 831, 408, 895, 1403, 1632,  
 825, 2127, 1283, 2199, 1673, 302, 2088, 186, 2171, 1635, 1235, 1079, 945, 321,  
 1622, 506, 1424, 849, 56, 1798, 128, 88, 46, 58, 389, 1830, 1537, 668, 838, 1744].  
**High-Diversity** [454]. **High-Frequency** [408]. **High-Latitude** [820, 530].  
**High-Light** [191]. **High-Performance** [2199]. **High-Resolution**  
 [997, 956, 886, 1925, 1742, 895, 825, 2088, 2171, 1235, 1079, 1424, 849].  
**High-Temperature** [622]. **High-Throughput** [349]. **Higher**  
 [1432, 1476, 169, 246, 2016]. **Higher-level** [169]. **Highlight** [1588].  
**Highlights** [933, 158]. **Highly** [1832, 1316, 689, 1580]. **Hippocampus** [256].  
**Histopathological** [2041]. **Historic** [753, 733, 1516, 54, 147, 238].  
**Historical** [343, 369, 1596, 1000, 883, 2009, 142, 645]. **Histories** [795].  
**History** [1119, 1762, 913, 1451, 1398, 1339, 1316, 1200, 557, 1188, 619, 1960,  
 1029, 688, 996]. **Hokkaido** [869]. **Hold** [1198]. **Hole** [528, 234]. **Holes** [401].  
**Holistic** [685]. **Holo** [573]. **Holo-Transcriptome** [573]. **Holobiont**  
 [940, 179, 139, 893, 960, 1750, 1206]. **Holobionts** [594, 145, 1434]. **Holocene**  
 [1519]. **Holothurian** [2147]. **Homarus** [1747]. **Homogenization** [405].  
**Honduras** [671]. **Hong** [604]. **hongkongensis** [604]. **Hope** [554]. **Horizon**  
 [523, 1516, 2115, 1408]. **Horizontal** [1695, 839]. **Hormone** [1269].  
**Hormones** [1099]. **Horse** [285]. **Horseshoe** [1116, 1095]. **hospite** [757].  
**Host** [712, 1119, 1322, 332, 1389, 2143, 1473, 250, 1117, 84].  
**Host-Associated** [250]. **Host-Generalist** [1473]. **Host-Specialist** [1473].  
**host-specific** [84]. **Hostile** [1714]. **Hosts** [1804]. **Hot** [882, 2154, 1006].  
**Hot-House** [2154]. **Hot-Vent** [882]. **Hotspot** [1190]. **Hotspots**  
 [1628, 1962, 1588, 115]. **Hours** [1894]. **House** [2154]. **HUFA** [256]. **Human**  
 [993, 968, 1291, 1697, 711, 2031, 1960, 952, 251, 1835, 585, 30]. **humanity**  
 [123]. **Humboldt** [1960]. **Humpback** [2007, 1813, 914, 1931, 2173]. **Hunting**  
 [809]. **Hurdle** [611]. **Hurricane** [1987, 2103, 2135, 212]. **Hurricanes**  
 [2209, 1731]. **huxleyi** [1119, 487, 158, 1077, 205, 1141]. **Hybridization**  
 [1091]. **hydrate** [112, 42]. **Hydrocarbon** [1090, 416, 2053]. **Hydrocarbons**  
 [1578]. **Hydrodamalis** [473]. **Hydrodynamic** [1987, 1627, 2157, 2018].  
**Hydrodynamics** [1476]. **Hydrogen**  
 [326, 257, 867, 1272, 622, 1361, 436, 438]. **Hydrograph** [530]. **Hydrographic**  
 [1910]. **Hydrography** [2179, 1255, 1801, 1155, 1571]. **Hydrography-Driven**  
 [2179, 1801]. **Hydrological** [1706]. **Hydrolysis** [258]. **Hydrostatic**  
 [1024, 401]. **Hydrothermal** [1848, 235, 882, 907, 2148, 985, 220, 1564, 278,  
 1463, 275, 1847, 1795, 980, 879, 669, 1027, 1288, 1043]. **Hydrous** [428].  
**Hydroxyl** [336, 193]. **Hydroxypyrene** [416]. **Hydroxyquinoline** [447].

**Hyper** [748, 695]. **Hyper-** [748, 695]. **Hyperaccumulation** [2145].  
**Hyperbaric** [1118]. **Hyperbolic** [367]. **Hypereutrophic** [1553].  
**Hyperglycemic** [348]. **Hyperspectral** [852, 786, 762]. **Hypertrophic**  
 [1364]. **Hypothesis** [1809, 1441, 285]. **Hypoxia**  
 [528, 483, 450, 464, 1001, 1413, 1607, 1929, 1818, 1281, 1256, 126]. **Hypoxic**  
 [881, 1180]. **Hypoxylon** [889].

**Iberia** [1512, 793]. **Ice**  
 [766, 1359, 1006, 771, 2112, 1130, 800, 839, 1647, 1606, 1886]. **Iceland** [310].  
**ICES** [1571]. **Ichthyotoxic** [1492]. **Ichthyotoxicity** [1550]. **Iconic** [1920].  
**ICOS** [2008]. **ICOS-Oceans** [2008]. **ICR** [321]. **Identification**  
 [558, 1064, 828, 618, 604, 1202, 1220, 447, 1080, 1932, 1131, 333, 2001, 762].  
**Identified** [458, 1832]. **Identifies** [473, 369]. **Identify**  
 [570, 720, 941, 512, 2038]. **Identifying** [1760, 640, 1504, 858, 334, 1171, 1390].  
**iDNA** [910]. **if** [2186]. **igens** [52]. **Iguanas** [971]. **II**  
 [684, 1141, 705, 419, 447, 967, 759]. **III** [332]. **Ilha** [2048]. **Illegal**  
 [217, 1334, 473, 542, 2167, 1010]. **Illustrate** [613]. **Illustrated** [1454].  
**Illustration** [747, 2078]. **ILTER** [1991, 2207]. **Image**  
 [575, 2211, 262, 2199, 1688, 100]. **Imagery** [1564, 1673]. **Imaging**  
 [1063, 914, 971, 936, 763]. **Imbalance** [1897]. **Immersive** [780]. **Immigrant**  
 [1544]. **Immobilized** [447]. **Immune** [1747, 332]. **Immune-Capacity** [1747].  
**Immunity** [1184]. **Impact**  
 [590, 423, 2022, 1876, 888, 1939, 1314, 1014, 351, 1271, 640, 1179, 481, 1962,  
 60, 626, 1610, 765, 916, 427, 1493, 760, 355, 1153, 1898, 344, 2197, 1669, 754,  
 891, 625, 382, 329, 1127, 1324, 638, 1132, 1600, 2180, 259, 480, 1206, 73, 83].  
**Impacted** [2004, 1397, 454, 54, 147, 238]. **Impacting** [1116]. **Impacts**  
 [1529, 2022, 1876, 1703, 1417, 1693, 1799, 973, 1612, 2026, 308, 478, 734, 1654,  
 1937, 2182, 1121, 387, 1070, 1674, 2158, 858, 1813, 953, 983, 295, 957, 206,  
 1725, 207, 1653, 908, 1300, 2077, 785, 1812, 1766, 1647, 1169, 938, 1128, 819,  
 1641, 1254, 251, 244, 1849, 1031, 1369, 114, 153]. **Impaired** [661]. **impedes**  
 [135]. **Impeding** [1221]. **Imperatives** [1614]. **Imperiled** [1267].  
**Implementation** [420, 1889, 1916, 384, 269, 1416, 1651, 2020].  
**Implementations** [806]. **Implementing** [414, 1372, 1670, 1290, 2104].  
**Implication** [240, 1180]. **Implications** [224, 1417, 181, 290, 214, 716, 478,  
 449, 1546, 2179, 765, 1428, 2118, 630, 756, 622, 718, 1193, 250, 408, 816, 877,  
 1744, 442, 2099, 381, 1924, 321, 1758, 989, 174, 213, 1212, 585, 1057, 141].  
**Imply** [1748]. **Importance**  
 [342, 1842, 1434, 1775, 1972, 1697, 897, 859, 336, 758, 1950, 501, 1374, 2053, 124].  
**Important** [2113, 2114]. **Impossible** [1126, 984, 1055]. **Improve**  
 [1800, 1637, 1358, 1767, 522, 2176, 835, 1594, 2102, 1892, 1376]. **Improved**  
 [618, 1165, 796, 1217, 2084]. **Improvement** [1532]. **improvements** [151].  
**Improves** [847, 1250]. **Improving** [1785, 403, 1697, 512, 1857]. **IMTA**  
 [1096, 1349]. **In-situ** [1571, 241]. **In-Water** [455, 1932]. **Inactive** [1926].  
**Incentives** [835]. **Incentivizing** [700]. **Incident** [1000]. **Incidental** [608].

**Incidents** [312]. **Including** [548, 908]. **Inclusion** [724]. **Inclusive** [511, 780, 1624]. **Incognitum** [614, 560]. **Income** [224]. **Inconsistencies** [806]. **Incorporate** [1336]. **Incorporating** [307]. **Incorporation** [1456, 1937, 1211, 621]. **Increase** [1158, 1208, 4, 1139, 718, 1033, 2021, 47, 134]. **Increased** [1417, 1134, 834, 2105]. **Increases** [1144, 929, 189]. **Increasing** [1826, 926, 556, 1502, 2, 312, 126]. **Incubated** [890]. **Independence** [283]. **Independent** [1484, 1630]. **Index** [1660, 1486, 852, 1768, 1778, 1007, 267, 514, 645, 512]. **indexed** [1037]. **Indexes** [808]. **Indian** [882, 805, 1732, 589, 631, 1018, 1976, 83, 1035, 1784, 679, 1821, 637, 137, 1373, 221]. **Indias** [2077]. **Indicate** [368, 901]. **Indicates** [649, 1050, 1289, 139]. **Indications** [1721]. **Indicator** [410, 186, 361, 514, 645, 53]. **Indicator-Based** [361, 53]. **Indicators** [863, 315, 941, 1715, 1577, 276, 2024, 964, 409, 616]. **Indices** [1498]. **Indigenous** [809, 410, 2078, 1544, 1253]. **Individual** [1640, 169, 254, 69]. **Individual-** [254]. **Individual-level** [169]. **Indo** [216, 872, 2021]. **Indo-Pacific** [216, 872, 2021]. **Indonesia** [303, 1681, 322, 633, 636, 760, 1011, 467, 963, 557, 966, 784, 1662]. **Indonesian** [899, 2142, 1844, 1047, 2013, 1723]. **Induce** [1060, 113]. **Induced** [1565, 247, 457, 1638, 1554, 1214, 2209, 2071, 1071, 1731, 1045, 432, 1318, 1379]. **Induction** [2100, 20]. **Industrial** [2121, 975]. **Industrial-Scale** [2121]. **Industries** [1570]. **Industry** [2090, 2138, 200, 765, 1116, 563, 44]. **Ineffectual** [1320]. **Inequality** [721]. **inermis** [770, 707]. **Inertia** [782]. **Inexpensive** [856, 1368]. **Infaunal** [1275]. **Infection** [219, 199, 1650, 158]. **Inferred** [1088, 1308, 459, 688]. **Inferring** [1394]. **Inflammatory** [271, 22]. **Inflow** [1314, 1992, 1179, 1315, 1710, 1155, 1759, 2047]. **Inflows** [1153]. **Influence** [1867, 261, 1988, 1009, 1319, 1450, 315, 1782, 1274, 873, 519, 1524, 39, 275, 1270, 1354, 981, 467, 440, 1222, 477, 345, 1328, 535, 1877, 883, 1687, 1071, 577, 1275, 2047, 1062, 1563, 1149, 1305, 149, 1808]. **Influenced** [1081, 1378, 668, 1124, 2171, 168]. **Influences** [2144, 1694, 1020, 1210, 1788, 1291, 770, 707, 1193, 480]. **Influencing** [263, 1609, 318]. **Influential** [166]. **Info** [591]. **Inform** [208, 641, 171, 1462, 988, 1812]. **Informal** [2089, 1855]. **Informatics** [1358]. **Information** [217, 1221, 1700, 1940, 1909, 1803]. **Informed** [295]. **Informing** [802, 671]. **Infrared** [1063, 1931]. **Infrastructure** [2051, 1993]. **Ingested** [1030]. **Ingestion** [1548, 68]. **ingredients** [64]. **Inhabiting** [226]. **inhibens** [1119]. **Inhibited** [438]. **Inhibition** [831]. **Initiation** [1082]. **Initiative** [2185, 1426, 1542]. **Initiatives** [1754, 2113, 110]. **Injection** [1320]. **Inland** [1017]. **Inlet** [486, 1495, 469, 1600]. **Inlets** [1628]. **Inner** [2114]. **Innovating** [414]. **Innovation** [1500, 1167]. **Innovations** [2194]. **Innovative** [1644, 384, 1579, 2203]. **Inorganic** [1166, 1567, 316, 179, 106]. **Input** [605, 1194, 244]. **Inputs** [201, 578, 873, 2054, 1306, 1619]. **Inshore** [208, 1312, 119]. **Insight** [1965, 1682, 1835, 44]. **Insights** [1414, 528, 737, 567, 78, 198, 1101, 2154, 1146, 1113, 1595, 637, 1944, 2208,



2192, 928, 2143, 685, 871, 966, 577, 1275, 50, 51, 71]. **Inspection** [1402]. **Installation** [2033]. **installations** [73]. **Instruction** [514]. **Instrument** [936]. **Instruments** [928]. **INT** [1686]. **Intakes** [616]. **Integrability** [1917]. **Integral** [1792]. **Integrals** [655]. **integrate** [70]. **Integrated** [53, 1820, 1358, 1890, 1096, 657, 1764, 1349, 1551, 2072, 1930, 1912, 1898, 936, 1780, 1910, 1708, 1896, 1887, 2215, 166, 896, 1893, 1629, 1611, 2008]. **Integrating** [1481, 956, 1150, 2156, 835, 1007, 2160, 1466]. **Integration** [1859, 1500, 848]. **Integrative** [900, 223, 1487, 1121, 781, 623, 80]. **Integrity** [1997, 1062]. **Intense** [531, 329]. **Intensity** [461, 1982]. **Inter** [1680, 1655, 1622]. **Inter-Annual** [1680, 1655]. **Inter-Tidal** [1622]. **Interact** [1017]. **Interacting** [677]. **Interaction** [1734, 1741, 5]. **Interactions** [712, 326, 1693, 285, 507, 1112, 675, 367, 1745, 350, 307, 176, 1273, 1715, 2143, 325, 1316, 1710, 672, 1970, 1131, 1454, 89, 44]. **Interactive** [593, 47, 1388, 1457, 1607]. **Interannual** [1694, 1518, 1232, 1354, 1532, 508, 476]. **Intercomparison** [463, 741, 868, 786]. **Interdisciplinary** [1273, 771, 1055, 1835, 144]. **Interest** [697]. **Interface** [1884, 1070, 1006, 195, 1222, 1055]. **Interfaces** [333]. **Interference** [1129]. **Interior** [338]. **Interisland** [871]. **Intermediate** [516]. **Intermittent** [464]. **Internal** [2162, 412, 1460]. **International** [2169, 1900, 1991, 758, 1914, 48, 318, 1727, 163, 2207, 747, 360]. **Interesting** [368]. **Interoperability** [1500, 1907]. **Interplay** [2157]. **Interpolation** [947]. **Interpret** [1940]. **Interpretation** [174, 213]. **Interpretations** [169]. **Interpreting** [38]. **Interspecific** [1091]. **Interstitial** [1219]. **Intertidal** [1343, 558, 1484, 1574, 929, 1475, 1263, 1227]. **Interval** [368]. **Intervals** [1772]. **Intervention** [1400]. **Interventions** [1334]. **Intestinal** [1608]. **Intra** [603]. **Intra-Specific** [603]. **Intraguild** [387]. **Intrathermocline** [997]. **Intrinsic** [1915]. **Introduces** [615]. **Introducing** [1521]. **Introductions** [410]. **Intrusion** [728, 1860, 62]. **intrusive** [759]. **intuitively** [653]. **Invading** [30]. **Invasion** [969]. **Invasions** [541, 1109, 108]. **Invasive** [1724, 2098, 821, 630, 2074, 1868, 2084, 389, 87, 1931]. **Inventory** [1659]. **Inverse** [1710]. **Inversion** [1987, 852]. **Invertebrate** [1948, 1954, 1186, 2178]. **Invertebrates** [649, 226, 1002, 50, 126]. **Investigate** [1257, 1610, 347]. **Investigated** [1710, 321]. **Investigating** [1021, 1182, 2066, 1008, 612]. **Investigation** [2075, 200, 278]. **Investigations** [1910]. **Investments** [1306, 177]. **Investors** [492]. **invisible** [19]. **Involved** [1024, 604, 2202, 15]. **Involvement** [1177]. **Involving** [1812]. **IOC** [1875]. **Iodine** [1065]. **Iodine-Related** [1065]. **Iodo** [1686]. **Iodo-Nitro-Tetrazolium** [1686]. **Ion** [998, 447, 321]. **Ionian** [685]. **Ionization** [447]. **Irish** [437]. **Irma** [2103]. **Iron** [2144, 1005, 261, 737, 285, 463, 230, 992, 490, 422, 850, 1046, 1490, 457, 1973, 812, 511, 278, 1365, 1795, 707, 336, 1040, 1049, 358, 301, 1635, 374, 1995, 1111, 770]. **Iron-Binding** [230, 511]. **Irradiance** [2144, 441, 719, 877, 925, 12]. **irradians** [483]. **Irrawaddy** [140]. **Irrelevant** [178]. **Irreversibility** [177]. **Isaac** [212]. **ISFET** [2127]. **ISFET-Based** [2127]. **Isla** [1022]. **Island**

[180, 993, 810, 1748, 457, 322, 637, 1829, 2157, 2000, 1711, 2101, 259, 1369, 1798, 163, 2126, 1260, 19, 2039, 1940, 1774]. **islandica** [1947]. **Islands** [1445, 1221, 633, 636, 981, 774, 1581, 966, 590, 997, 2094, 1210, 810, 1638, 1837, 1755, 317, 918, 274, 1868, 104, 1995]. **Iso** [1053, 1952]. **Iso-Seq** [1053]. **Isoform** [1053]. **Isolated** [2126, 1012, 889, 2036]. **Isotope** [1088, 1308, 1146, 1229, 1269, 916, 2010, 770, 707, 1593, 453, 974, 1986, 621, 107]. **Isotopes** [1097, 2079, 1610, 1099, 600, 1454, 62]. **Isotopic** [518, 1733, 1356, 1452, 59]. **Israel** [1123]. **issues** [73]. **Italian** [1831, 861]. **Italy** [2148]. **IUCN** [395]. **IUU** [1502]. **Ivory** [473, 1528]. **Ixtoc** [55]. **Ixtoc-I** [55].

**January** [161]. **Japan** [1467, 128, 288, 647, 302]. **Japanese** [304, 323]. **japonica** [718, 1958]. **Jelly** [2098, 124]. **jelly-falls** [124]. **Jellyfish** [1381, 1188, 124]. **jellyfish-dominated** [124]. **JERICO** [1993]. **Jiaozhou** [301]. **Jinhae** [1001, 1825]. **jocu** [2009]. **Joint** [1875, 1003]. **Journal** [662]. **Journals** [1037]. **July** [1180]. **Juneau** [2173]. **Jurisdiction** [2059, 425, 1984, 5]. **Jurisdictional** [1246, 1160]. **Just** [845, 1639]. **Juvenile** [483, 2023, 2181, 1659, 1735]. **Juveniles** [1518, 891].

**Kāneʻohe** [888]. **Karimunjawa** [1662]. **Karlodinium** [1251, 1550]. **Karyotype** [2091]. **Kauaʻi** [2016]. **Keep** [789]. **Kei** [633]. **Kelp** [1963, 931, 1939, 1461, 1980, 1878, 1540, 1349, 1530, 1958, 1552]. **Kelps** [1841]. **Kenya** [584]. **Keratois** [1840]. **Kerguelen** [457, 1356]. **Key** [502, 803, 1575, 1654, 1451, 1198, 1267, 1362, 1480, 357, 1614, 1055, 861, 1647, 1635, 1982]. **Kill** [2073]. **Killer** [2108, 1810]. **Kin** [1807]. **Kinetic** [1986]. **King** [2101]. **Kinorhyncha** [7, 120]. **Kinship** [2139]. **Kiribati** [2068]. **Kittiwakes** [615]. **Kleptocnidism** [1441]. **Knife** [2092]. **Knob** [972]. **Knob-Like** [972]. **Knot** [687]. **Know** [646, 2186]. **Knowing** [485]. **Knowledge** [649, 1598, 1656, 1575, 1654, 1822, 885, 1821, 809, 1775, 391, 1066, 950, 848, 1928, 680, 908, 1084, 2109, 2202, 1055, 1594, 294, 2035, 588, 38, 159, 2]. **Knowledge-to-Action** [1822]. **Known** [1192, 57]. **Kogelberg** [390]. **Kong** [604]. **Kongsfjorden** [402]. **Korean** [1001, 1825]. **Kraken** [376]. **Krill** [800, 43]. **Kuwait** [1609]. **Kylin** [2115].

**L** [808]. **L.** [74, 135, 310, 2009]. **Lab** [812, 745]. **Lab-On-Chip** [745, 812]. **Lability** [1798]. **Laboratories** [1451]. **Laboratory** [487, 1244, 607]. **Laboratory-Cultured** [607]. **Labrador** [641, 1228]. **Labrus** [1608]. **Labyrinthula** [1734]. **Lack** [1995, 96]. **Lactic** [611]. **Lagoon** [1364, 1236, 1453, 983, 929, 1222, 1494, 787, 1544, 1020, 241]. **Lagoon-Development** [1453]. **Lagrangian** [1941, 2188, 1338]. **Lake** [1146, 790, 476, 257, 867, 2194, 616]. **Lakes** [504]. **Lamarck** [280]. **Laminariales** [1958]. **Land** [2026, 1486, 1273, 460, 635, 467, 739, 333]. **Land-Based** [467]. **Land-Deep** [460]. **Land-Sea** [333]. **Landed** [1768].

**Landing** [2057, 1133]. **Landings** [525, 696, 345, 103]. **Landings-SST** [345].  
**Landsat** [2061, 682, 819]. **Landsat-8** [2061]. **Landscape** [1609].  
**Landscapes** [1207]. **Landsort** [1519]. **Landward** [1067]. **Lankan** [983].  
**Laptev** [1687]. **Large**  
 [1342, 1722, 309, 856, 1368, 1490, 1350, 1507, 2055, 947, 575, 2211, 926, 1569,  
 862, 1332, 1815, 1950, 895, 1387, 1026, 177, 693, 66, 761, 116, 1487, 1520].  
**Large-Eye** [309]. **Large-Scale** [1342, 1569, 1332, 1815, 1026, 177, 761, 1487].  
**largest** [141]. **Larvae**  
 [2093, 1185, 982, 219, 1954, 760, 1243, 808, 1396, 1117, 989]. **Larval**  
 [1221, 1028, 1105, 483, 978, 1834, 821, 584, 1092, 816, 1007, 2174, 1828, 871,  
 901, 50, 96, 69]. **Larval-Fish** [978]. **laser** [100]. **Last** [1736, 476, 600]. **Late**  
 [1449, 1519]. **Lateral** [2054]. **Latin** [1510, 1340, 1616, 1928]. **latissima**  
 [1349]. **Latitude** [1005, 426, 886, 824, 820, 530, 945]. **Latitudes** [1475].  
**Latitudinal** [1617, 1986, 872]. **Lau** [1848, 1959, 2056]. **Law** [5]. **Laws** [229].  
**Layer** [1190, 582, 1165, 1786, 1832, 1323, 1177, 1237, 1866]. **Layered** [1374].  
**Layers** [1830, 824, 2189]. **Leachate** [193, 1002]. **Leadership** [318]. **Leads**  
 [1427]. **Leaf** [1135, 852]. **leakage** [112]. **Learned**  
 [1451, 2051, 262, 1426, 1935]. **Learnt** [394]. **Leatherback** [713, 368]. **Leaves**  
 [1415, 135]. **lecromi** [1930]. **Leeward** [543]. **legacy** [55]. **Legal** [1010].  
**Legislative** [753, 1025]. **leidyi** [2098]. **LEK** [680, 1598]. **Lena** [184]. **Length**  
 [1380]. **Lengths** [591]. **Lens** [1943]. **Lepetodrilidae** [1847]. **Lepetodrilus**  
 [1847]. **Lepidochelys** [890]. **Leptastrea** [1396]. **Less** [1996]. **Less-Studied**  
 [1996]. **lessonii** [1937]. **Lessons** [394, 1363, 935, 1451, 1965, 2158, 2051, 1755,  
 779, 408, 1940, 262, 1426, 1708, 924, 952, 361]. **Leste** [1858, 1951].  
**Lethrinidae** [309]. **Lettuce** [1532]. **Leuca** [828]. **Leucine** [457]. **Levantine**  
 [626]. **Level** [279, 1417, 1500, 2046, 204, 1472, 1640, 240, 538, 327, 2136, 2077,  
 408, 1902, 1086, 1711, 1766, 254, 2150, 169, 46, 58]. **Levels**  
 [1529, 1164, 2177, 478, 804, 760, 705, 870, 556, 2065, 105]. **Leveraging** [1688].  
**Lewes** [1031]. **lewini** [2181]. **Library** [777]. **Licence** [1345]. **Licensed**  
 [1582]. **Licensing** [344]. **Lidar** [1717]. **Life** [426, 1988, 1119, 1434, 1339,  
 1316, 758, 2132, 1427, 1200, 1188, 1960, 996, 621, 158]. **Lifecycle** [1213].  
**Lifestyle** [550]. **Lifetime** [886]. **Lifeworlds** [399]. **Ligament** [1304]. **Ligand**  
 [447]. **Ligands** [444, 803, 230, 287, 511, 447, 1141, 374, 321, 333]. **Light**  
 [1734, 308, 582, 198, 1937, 1351, 999, 398, 191, 461, 817, 1285, 362, 222, 927,  
 2058, 799, 1380, 1635, 787, 1424, 2081, 1741, 1305, 1808, 105].  
**Light-Enhanced** [999]. **Light-Entrained** [817]. **Light-Phytoplankton**  
 [1741]. **Lignin** [211, 288, 2206, 168]. **lignin-derived** [168]. **Like**  
 [1389, 353, 1318, 972]. **Limit** [1963, 1283]. **Limitation** [472, 737, 1734, 1024,  
 1973, 1978, 1365, 325, 362, 1293, 757, 1019, 1152, 358, 1635, 1563, 3, 927].  
**Limitations** [181, 859, 1253]. **Limited** [2117, 666, 697, 2045, 1206].  
**Limiting** [222]. **Limits** [268, 994]. **Limnobacter** [458]. **Limpet** [1847].  
**Limpets** [567]. **Line** [140, 786]. **Linear** [1123]. **Lingulodinium** [1205, 1111].  
**Link** [1486]. **Linkage** [347, 1615]. **Linkages** [168]. **Linked** [1530, 1647, 1045].  
**Linking** [642, 1277, 1784, 1163, 1764, 1208, 424, 515, 2162, 212, 2084]. **Links**

[1695, 468, 1761]. **Linnaeus** [2203, 688]. **Lionfish** [1724, 630, 87]. **Lions** [268, 1389, 782]. **Lip** [671]. **Lipid** [1044, 1794, 1327, 1563]. **Lipidome** [605]. **lipidomics** [158]. **Lipids** [859, 2145, 509]. **Lipogenic** [2145]. **Liquid** [895]. **Literacy** [1754, 2089, 1826, 1806, 1528, 1791, 1862, 2109, 2040, 1855, 1739]. **Literature** [1383, 1835, 172]. **Lithogenic** [1356]. **Lithology** [320]. **Litopenaeus** [2150]. **Litter** [1164, 973, 570, 1674, 578, 1003, 1548, 1526, 1022, 683, 2123, 164, 83]. **Little** [1531]. **Littoral** [222, 1123]. **Lived** [1555, 378]. **Liverpool** [1584]. **Lives** [300]. **Living** [1102, 1389, 1936, 250, 1118]. **Lizard** [2039]. **LNLC** [612]. **loaded** [152]. **Loading** [1395]. **Loads** [764, 1604, 480]. **lobata** [381]. **Lobatus** [671]. **Lobster** [2043, 827, 1170, 989]. **Lobsters** [1747, 1448]. **Local** [1343, 649, 1598, 640, 1093, 752, 1193, 1617, 2157, 664, 1594, 1324, 1552, 1355, 480, 680]. **Localization** [475]. **Localized** [1628]. **Location** [2166, 845, 941, 245]. **Locations** [1767, 665, 1050]. **Loggerhead** [1382, 1737, 1193, 455, 1831, 489]. **Logging** [709]. **Logistical** [1007]. **Long** [1216, 1747, 486, 737, 1321, 2046, 122, 1748, 448, 985, 1555, 1629, 525, 696, 745, 656, 1906, 232, 1202, 791, 1991, 2207, 2036, 1494, 1218, 1053, 870, 378, 901, 534, 1735, 2125, 1836, 72, 663]. **Long-Chain** [2036]. **Long-Lived** [1555, 378]. **Long-Read** [1053]. **Long-Term** [1216, 1747, 737, 1321, 2046, 985, 1629, 525, 696, 1906, 232, 1202, 791, 1991, 2207, 1494, 1218, 870, 1735, 2125, 1836, 486, 448, 745, 663]. **Longevity** [1078, 901]. **longiceps** [1373]. **longicyathus** [1321]. **longirostris** [454]. **Longline** [202, 750]. **Longline-Caught** [202]. **Longqi** [882]. **Longsnout** [256]. **Look** [195]. **Looking** [264, 1133]. **Lophelia** [593, 76, 901]. **Losers** [954, 1811]. **Loss** [2141, 807, 1975, 1920, 1126, 984, 559, 644, 259, 135]. **Lost** [978, 774, 1539]. **Louisville** [825]. **Love** [1038]. **Low** [2108, 1024, 1973, 628, 893, 1273, 1285, 454, 113, 823, 605, 530, 831, 1283, 853, 612, 19]. **Low-Biomass** [605]. **Low-Divergence** [454]. **Low-Lying** [1273]. **Low-Priced** [853]. **Low-Temperature** [530]. **Lower** [518, 743, 568, 2210]. **LUSI** [1486]. **lutea** [1065, 1053, 1952]. **Lutjanus** [1124, 2009]. **Lying** [1273]. **Lysis** [1098].

**m** [2126, 1582, 2163, 879, 669, 2000, 1029, 104]. **Mākua** [2016]. **MA** [480]. **Macaronesian** [567]. **Mackerel** [289, 720]. **Macondo** [1320]. **Macro** [1434, 578, 1938]. **Macro-** [1434]. **Macro-Epibenthic** [1938]. **Macroalga** [2115, 333]. **Macroalgae** [1005, 1783, 1418, 1263, 65]. **Macroalgal** [105, 1121, 109, 1374, 40]. **Macrobenthic** [738]. **Macrobrachium** [1789]. **macrocephalus** [369]. **Macrofauna** [595, 881, 1420, 1429, 39]. **Macrofaunal** [690, 235, 1467, 1483, 1132]. **Macroinvertebrates** [405]. **Macroplastic** [1303]. **macropomum** [1423]. **Macrozooplankton** [1678]. **Mactra** [2114]. **maculata** [237]. **Madagascar** [1437]. **Made** [890]. **Maerl** [1617]. **Magdalena** [1493]. **Magnesium** [1177]. **Magnesium-Rich** [1177]. **Magnetic** [1161, 1103]. **Magnification** [1585]. **Magnitude** [1946, 2212, 793]. **Main** [466, 703, 590, 1868]. **Maine** [1640, 827, 453]. **Mainstream** [2089].

**Maintained** [220]. **Maintaining** [175, 31]. **Maintenance** [1434]. **Major** [1314, 1678, 1179, 1483, 1153, 1315, 736, 535, 294, 510, 9]. **Makarov** [400]. **Makers** [178]. **Making** [1556, 1262, 1630, 2194, 638, 1932, 299, 399]. **MALDI** [1080, 2122]. **MALDI-TOF** [1080, 2122]. **Male** [2041, 41]. **Malettinin** [33]. **Malta** [1231]. **Mamanguá** [2048]. **Mammal** [1800, 290, 675, 473, 1201, 809, 1950, 903, 144]. **Mammals** [478, 2069, 2110, 551, 1122, 539, 1970, 175]. **Man** [890]. **Man-Made** [890]. **Managed** [506]. **Management** [1100, 1988, 2059, 1776, 1598, 439, 264, 843, 181, 208, 564, 1762, 913, 1566, 826, 1442, 802, 1398, 2156, 1555, 1016, 171, 671, 1201, 307, 1372, 1670, 322, 626, 2131, 1428, 1953, 1595, 1068, 633, 1715, 2003, 778, 2196, 988, 954, 634, 630, 767, 1577, 1246, 1160, 1630, 780, 2044, 562, 379, 735, 598, 1744, 717, 451, 664, 1714, 442, 825, 1416, 685, 2006, 861, 1594, 1521, 1643, 2035, 2024, 938, 1128, 2104, 2203, 1330, 948, 687, 701, 385, 989, 2021, 1603, 1253, 1624, 127, 148, 153, 835, 1858]. **Managing** [2094, 2110, 1557, 209, 1453, 391, 2209, 346, 1731, 1355]. **Manatees** [1225, 1784, 365, 1247]. **manatus** [1784]. **Mandates** [209, 1416]. **Mangnese** [1179]. **Mangrove** [1415, 843, 255, 679, 1733, 1307, 635, 1945]. **Mangrove-Estuary** [1945]. **Mangroves** [472, 352]. **Manipulation** [807]. **Manta** [1556, 1681, 2142, 1245]. **Mantle** [1832]. **Manual** [2112, 484]. **Manuals** [1645]. **Manufacturing** [1209]. **Many** [1120]. **manzamine** [52]. **Map** [1489]. **Mapping** [21, 1564, 2113, 1925, 2003, 1990, 1744, 2180, 1749]. **Maps** [628, 947, 1765, 778, 1673]. **Mar** [870]. **Mare** [614, 560]. **Margalefidinium** [1928]. **Margin** [130, 840, 1758, 168]. **Marginal** [57, 221]. **Margins** [1559]. **Marguerite** [676]. **Maria** [828]. **Mariana** [918, 1837]. **Mariculture** [730, 626, 2065, 1256, 123]. **marina** [1135, 486, 135, 1102, 1476, 1391, 718, 440, 205, 1328]. **Marine** [1570, 180, 1800, 1804, 389, 712, 642, 1963, 2092, 1331, 1867, 405, 2022, 1876, 36, 342, 528, 1329, 2106, 1861, 753, 1072, 1590, 1694, 1680, 792, 1358, 1859, 303, 439, 2152, 425, 377, 223, 524, 1908, 290, 993, 1678, 1120, 698, 658, 351, 675, 1262, 1178, 1833, 2086, 1948, 933, 263, 1736, 1701, 375, 640, 2082, 1974, 874, 478, 376, 1432, 2195, 449, 810, 1451, 2091, 473, 1578, 414, 1224, 856, 1368, 1459, 892, 1609, 505, 1783, 1616, 2156, 1597, 1956, 2069, 2110, 1770, 1629, 2079, 1468, 315, 44, 349, 2028, 1488, 1269, 1660]. **Marine** [671, 1745, 1962, 525, 696, 1287, 1161, 1103, 1351, 1434, 474, 1201, 420, 1973, 164, 1674, 628, 2158, 1788, 1105, 944, 1268, 2175, 1729, 1681, 541, 2159, 184, 1685, 578, 599, 322, 1584, 1610, 1003, 1294, 226, 1765, 814, 390, 1139, 522, 1267, 1964, 551, 1953, 941, 1524, 386, 498, 890, 496, 912, 809, 1291, 1961, 246, 1065, 537, 1537, 286, 2005, 576, 969, 1345, 1679, 545, 1186, 354, 1365, 648, 355, 905, 248, 1548, 928, 575, 2211, 2003, 464, 1700, 1768, 889, 796, 950, 971, 1138, 1413, 1746, 1614, 1634, 1443, 862]. **Marine** [1742, 192, 485, 1912, 465, 1477, 767, 1204, 1577, 523, 1054, 605, 686, 1199, 1526, 1779, 1246, 1160, 1175, 1390, 1142, 2120, 1802, 2031, 407, 250, 758, 747, 1740, 2197, 995, 2202, 178, 789, 379, 363, 1183, 1596, 779, 1568, 1950, 735, 1034, 854, 265, 539, 1455, 1645, 729, 1040, 452, 1449, 2073, 911, 2174, 664,

1996, 1394, 2038, 825, 879, 669, 1874, 1719, 1127, 783, 554, 638, 813, 2200, 2014, 262, 2099, 2102, 1474, 2087, 903, 346, 724, 1872, 1774, 600, 1509, 234, 2123, 1683, 2035, 1083, 1025, 966, 772, 2024, 1952, 1728, 409, 1615]. **Marine** [1970, 1169, 1167, 1552, 166, 693, 1290, 2180, 612, 709, 1330, 361, 833, 374, 416, 1145, 1333, 385, 1563, 1866, 506, 251, 588, 1580, 1508, 1252, 1407, 333, 1623, 1665, 587, 1849, 175, 2135, 2001, 1098, 1839, 1253, 399, 1057, 2084, 14, 6, 53, 157, 1, 70, 89, 64, 91, 31, 50, 8, 61, 13, 86, 163, 153, 144, 172, 73, 69, 101, 111, 18, 107, 46, 58, 33, 12, 48, 15, 11, 143, 2, 24, 116, 5, 642, 64, 2094, 1722, 1249, 802, 1028, 659, 1485, 1154, 200, 700, 384, 96, 666, 1984, 806]. **Marine** [1195, 871, 504]. **Marine-Based** [911]. **Marinobacter** [1111]. **maritima** [1391]. **maritimus** [1066]. **mark** [99]. **Marked** [906]. **Markers** [2183, 10]. **Market** [1955, 153, 132]. **market-based** [153]. **Marsh** [733, 1086, 1433, 670]. **Marshes** [635, 324]. **Masked** [1569]. **Masking** [1201]. **Mass** [411, 518, 1384, 2170, 1356, 1089, 447, 2132, 895, 2052, 165, 710, 321]. **Massive** [181, 1195, 1553]. **Mata** [1959, 2056]. **Material** [467, 1919, 124]. **mathaei** [1186]. **Mathematical** [1421]. **Mating** [2139]. **Matrix** [1101, 1509]. **Mats** [949, 245]. **Matter** [182, 2092, 201, 1020, 1181, 257, 867, 581, 513, 1676, 1113, 1852, 211, 1161, 1103, 474, 184, 1159, 313, 1664, 1786, 460, 920, 1452, 248, 1436, 288, 2136, 561, 686, 1945, 1194, 194, 453, 747, 424, 203, 895, 854, 535, 400, 186, 623, 174, 213, 2065, 761, 1256, 155, 165, 68, 143, 168]. **Matters** [1851]. **Mature** [1086]. **Maturity** [671]. **Maui** [871]. **Mauritania** [880]. **Mauritanian** [334]. **Maxent** [828]. **Maximum** [600]. **maximus** [1456, 956, 1094, 2203, 2100]. **May** [1091, 999, 778, 324, 1127, 134, 1730]. **McDonald** [2094, 1995]. **Meadows** [505, 1121, 1476, 941, 1405, 878, 1588, 546, 40]. **Meal** [1560]. **Mean** [2046, 240, 327, 1180, 1768, 957, 1218, 103]. **Mean-State** [1180]. **Meandrinidae** [1445]. **Meaning** [399]. **Meaning-Making** [399]. **Means** [1490, 789, 49]. **Measured** [277, 464]. **Measurement** [1159, 684, 1931, 418, 503]. **Measurements** [396, 1827, 654, 581, 2182, 2049, 1917, 2042, 1367, 748, 695, 241, 1107, 1108, 1824, 1052, 1235, 1079, 1051, 1866, 1447]. **Measures** [394, 2006, 1508, 989, 153]. **Measuring** [264, 202, 769, 1897, 1665]. **Mechanical** [405]. **Mechanisms** [187, 1809, 1114, 999, 241, 493, 834, 1812, 1874, 924, 1989, 81]. **Mechanistic** [230, 1326, 848]. **Mechanization** [557]. **Mediated** [182, 247, 1476, 2204, 561, 336]. **Mediates** [403]. **Medicine** [2149]. **Mediterranean** [423, 828, 1009, 581, 1028, 1765, 372, 932, 427, 488, 818, 735, 683, 382, 329, 1576, 2006, 482, 549, 2203, 710, 922, 2166, 1100, 708, 2095, 730, 921, 564, 1762, 913, 45, 734, 1856, 618, 1165, 1398, 1472, 525, 696, 1287, 659, 1104, 628, 125, 2170, 60, 720, 30, 335, 1230, 1853, 156, 133, 207, 1574, 131, 1862, 2165, 2213, 1811, 736, 754, 609, 1034, 1986, 598, 806, 2186, 65, 685, 1621, 1231, 1998, 2032, 77, 702, 591, 2078, 687, 2053, 2162, 2125]. **Medium** [330, 2007]. **Meet** [1798]. **Meeting** [1900, 1756]. **Meets** [231, 1970, 64]. **Mega** [840]. **Mega-Epibenthic** [840]. **megabenthos** [102]. **Megafauna**

[2156, 1269, 912, 631, 971, 1138, 192, 2178, 2102, 2068, 1728]. **Megafaunal** [2067, 442, 938, 1128]. **Meiobenthos** [2122]. **Meiofauna** [1378, 697, 2198]. **Melt** [766, 2118]. **Melt-Related** [2118]. **Melting** [1359]. **Meltwater** [1612, 1801, 668, 402, 1877]. **Member** [1832]. **Members** [1637]. **Membrane** [1997, 732, 15]. **Menidia** [1017]. **Menten** [367]. **Menu** [2142]. **Mercenaria** [483]. **Mercury** [1585, 791, 1222]. **Meridional** [1694, 1726]. **Merluccius** [417]. **Mermaid** [473]. **Meroplanktonic** [1954]. **Mertz** [1195]. **Meso** [906, 531]. **Meso-** [531]. **Meso-Eutrophic** [906]. **Mesoamerican** [1879, 93]. **Mesocosm** [527, 881, 1241, 1144, 427, 1036, 488, 459, 609, 382, 1060, 577, 702, 612, 482, 549]. **Mesocosms** [576, 605, 761]. **MesocosmStudy** [2079]. **Mesodinium** [897]. **Mesopelagic** [992, 1190, 1830, 822, 1360, 932, 1972, 824, 310, 338, 234, 1454, 1058, 970, 1863]. **Mesophotic** [590, 397, 1105, 1234, 960, 1724, 1375, 1771, 2000, 1118, 647, 317, 1083, 543, 84]. **mesoscale** [1850]. **Mesozooplankton** [1668, 678, 1972, 1696, 936, 1923]. **Met-Ocean** [1875]. **Meta** [1693, 2177, 1654, 2113, 537, 2129, 1108]. **Meta-Analysis** [1693, 2177, 1654, 2113, 537]. **meta-Cresol** [1108]. **Meta-Synthesis** [2129]. **Metabarcoding** [298, 405, 731, 2195, 2137, 767, 2122]. **Metabolic** [922, 1242, 940, 1997, 732, 1041, 1986, 751, 17]. **Metabolism** [737, 2048, 188, 653, 125, 65]. **Metacommunity** [980]. **Metagenetic** [869]. **Metagenomic** [777, 1102, 515]. **Metagenomics** [226, 36]. **Metal** [803, 1927, 744, 1829, 447, 319, 2074, 1761, 321, 71, 77]. **Metal-Ion** [447]. **Metal-Organic** [321]. **Metallophores** [333]. **metallothionein** [32]. **Metals** [1415, 1503, 858, 1945, 1048]. **metamorphic** [20]. **Metamorphosis** [429, 50]. **metapopulation** [142]. **Metatranscriptome** [139, 1289]. **Metatranscriptomics** [986]. **Metazoan** [573, 869]. **Metazoans** [496, 783]. **Meteotsunami** [260]. **Meter** [1181]. **Meter-Scale** [1181]. **Meters** [1466]. **Methane** [832, 458, 679, 830, 1957, 347, 275, 477, 146, 1511, 1235, 1079, 42, 112]. **Methane-Consuming** [458]. **Methane-Seep** [832]. **Methanotrophic** [469]. **Methanotrophy** [515]. **Method** [2004, 1485, 1686, 852, 1297, 1186, 1742, 756, 1390, 786, 503]. **Methodological** [1722, 1307, 950, 896]. **Methodologies** [349]. **Methodology** [390, 456, 1303]. **Methods** [1754, 828, 753, 804, 1386, 684, 484, 1600, 99, 18]. **Methylated** [1238]. **Metric** [1778]. **Metrics** [1150, 1201, 1279]. **Metrology** [1107, 1108]. **Mexican** [1297, 1418, 1981, 630, 1220]. **Mexico** [1097, 1706, 2154, 1105, 1384, 1267, 1534, 769, 1180, 603, 2192, 2129, 76, 1469, 2146, 2036, 1422, 146, 2163, 7, 120, 55, 1083, 1924, 312, 2115, 1623, 725]. **Mg** [1937, 1042]. **MGR** [1984]. **Michael** [1987]. **Michaelis** [367]. **Michaelis-Menten** [367]. **Micro** [1276, 1030, 522, 1725, 1690, 2191, 90]. **Micro-** [1276]. **micro-computed** [90]. **Micro-CT** [2191]. **Micro-Estuary**

[1690]. **Micro-plastic** [522]. **Micro-Scale** [1725]. **Microalga** [732, 1065, 270, 1952]. **Microalgae** [1536, 397, 1434, 271, 1313, 1563]. **Microalgal** [1497]. **Microarray** [783]. **Microbes** [2092, 258, 329, 1658]. **Microbial** [1804, 951, 1536, 742, 986, 1366, 130, 1322, 1359, 1444, 372, 1208, 427, 1282, 335, 248, 42, 477, 1669, 609, 1465, 1576, 1127, 210, 1650, 476, 1600, 1265, 1031, 212, 1057, 97, 146]. **Microbially** [182, 1860, 561]. **Microbially-Mediated** [182, 561]. **Microbiology** [1085]. **Microbiome** [712, 398, 1475, 2120, 501, 52]. **Microbiomes** [712, 907, 749, 1032]. **Microbiota** [708, 2098]. **microcephalus** [1593]. **microcosm** [67]. **Microcystins** [961]. **Microextraction** [2095]. **Microlayer** [423, 1386, 657, 1113, 1479, 337, 77]. **Micromolar** [445]. **Micromonas** [362]. **Micronekton** [1678, 517, 1971, 1999]. **Micronesia** [1178, 192]. **Micronutrient** [1503]. **Microorganisms** [1927, 250, 2202]. **Microphytobenthic** [2118, 1227]. **Microphytobenthos** [1406]. **Microphytoplankton** [2101, 131]. **Microplankton** [1491]. **Microplastic** [1548, 909]. **Microplastics** [1244, 420, 2142, 576, 627, 1074, 1183, 1034, 1058, 970]. **MicroROVs** [1970]. **Microsatellite** [1789, 10]. **microscopical** [80]. **Microscopy** [998]. **Microstructures** [1284, 998]. **Microzooplankton** [1642, 1730, 459, 1650]. **Mid** [844, 2060, 1123, 1372, 1670, 1860, 746, 943]. **Mid-Atlantic** [2060, 1372, 1670, 1860, 746, 943]. **Mid-Littoral** [1123]. **Mid-North** [844]. **MiDAR** [1985]. **Middens** [282]. **Middle** [2175, 1519]. **Midwater** [1831]. **Migration** [1260, 1784, 822, 765, 912, 364, 1972, 1092]. **Migrations** [310, 92]. **Migratory** [1246, 1160, 601]. **miles** [1724]. **Milestones** [1708]. **millepora** [621]. **Mimics** [1129]. **Mind** [1754]. **Mine** [661, 1060, 948]. **Mineral** [2005]. **Mineralization** [1278, 1082]. **Mineralogy** [1404]. **Minerals** [1968]. **Mingulay** [1548]. **Miniature** [465]. **Minimal** [652]. **Minimize** [1816]. **Minimum** [2185, 880, 2080, 2204, 1378, 515, 1189, 644, 1924]. **Mining** [2067, 1397, 1927, 858, 908, 1126, 984, 697, 1048, 1411, 392]. **Minke** [1713]. **Minnow** [1017]. **MIS** [1182]. **Mislabeling** [1977]. **Missing** [892]. **Mission** [1675, 1590, 1922, 1698, 1903, 1661]. **Mississippi** [1097, 481, 2192, 212]. **Mitigate** [2152, 41]. **Mitigating** [153, 1970]. **Mitigation** [1397, 592, 1975, 1921, 718, 750, 2161, 110]. **Mitochondrial** [910, 688]. **Mixed** [1191, 582, 1853, 754, 482, 549]. **Mixing** [1097, 2140, 1140, 932, 1864]. **Mixing-Restratification** [1140]. **Mixotroph** [1305, 1808]. **Mixotrophic** [1088, 944, 1223]. **Mixotrophy** [1421, 1251, 1204]. **Mixotrophy-Associated** [1204]. **MMPs** [1304]. **Mn** [1945, 2054]. **Mnemiopsis** [2098]. **Mobile** [2050, 1722, 640, 715]. **Mobility** [952]. **Mobilizing** [492]. **MOBs** [1249]. **Mobulid** [1200]. **Mode** [471]. **Model** [396, 261, 426, 956, 691, 570, 798, 1901, 2154, 487, 1956, 569, 923, 744, 947, 522, 852, 1421, 1270, 1136, 1370, 1811, 1087, 447, 228, 435, 1594, 600, 1643, 366, 612, 341, 3, 29]. **Model-Observations** [1901]. **Modeled** [635, 1725, 1440]. **Modelers** [367]. **Modeling** [1941, 1478, 753, 1908, 2086, 190, 569, 1350, 659, 720, 873, 1765, 773, 295, 1682, 939, 818, 1377, 108, 848, 2196, 1746, 384, 459, 485, 584, 927,



1077, 579, 1710, 1222, 831, 683, 1902, 2006, 1141, 338, 544, 871, 1892, 404, 1338, 989, 359, 1471, 63]. **Modelling** [950]. **Models** [1800, 613, 1150, 242, 1987, 1211, 2111, 641, 1533, 860, 441, 403, 1421, 778, 1199, 995, 1218, 911, 2038, 825, 346, 1647, 2088, 2024, 2104, 896, 1677, 652, 1835]. **Moderate** [718]. **Modern** [1420, 1925, 369, 260]. **Modes** [89, 1174]. **Modified** [1939, 343, 152]. **Modifies** [940]. **Modify** [1388]. **Modifying** [2184]. **MODIS** [643, 616]. **MODIS-Based** [616]. **Modulate** [187, 799, 1227]. **Modulated** [1671, 751, 1960]. **Modulates** [461]. **Modulation** [1734]. **mokarran** [495]. **Mokumanamana** [2178]. **Molecular** [558, 2025, 567, 1312, 553, 1065, 2136, 686, 791, 831, 895, 24, 1280, 158]. **Molecule** [776, 1053]. **Molecule-to-Biosphere** [776]. **Molecules** [1386]. **Mollusca** [900, 688]. **Molluscan** [1284, 1509]. **Mollusk** [371]. **Moment** [782]. **Momentum** [1895]. **Monica** [1583]. **Monitor** [629, 599, 1133, 1645]. **Monitored** [1151]. **Monitoring** [389, 298, 1787, 1277, 753, 2050, 2095, 586, 2046, 2057, 1967, 414, 542, 1143, 1557, 349, 2158, 1435, 578, 745, 947, 1294, 1209, 1255, 551, 1813, 1534, 869, 643, 1775, 2064, 1742, 407, 2044, 368, 363, 1815, 1950, 1902, 1843, 1818, 959, 1865, 378, 964, 819, 31]. **Monod** [367]. **Monsoon** [320]. **Month** [988]. **monticulosum** [889]. **Montipora** [893]. **Monuments** [1120]. **Mo'orea** [788]. **Moored** [928, 791, 1399]. **Mooring** [1648]. **Moorings** [1569]. **morhua** [1413]. **morphodynamic** [128]. **Morphologic** [1711]. **Morphological** [558, 567, 1545, 1339, 787, 80]. **Morphology** [1800, 214, 716]. **morphometry** [74]. **Morphotype** [381]. **Morphs** [1043]. **Mortality** [1342, 202, 1737, 1384, 2170, 1871, 2132, 1327, 482, 549, 710]. **Mosaic** [924]. **Mosselbukta** [2130]. **Most** [671, 2114, 1469]. **Motility** [628]. **Motive** [1590]. **Mounds** [828, 1652]. **Movement** [1695, 2007, 191, 215, 562, 1864, 952, 1252, 149]. **Movements** [1414, 713, 956, 1094, 1507, 2173]. **Movies** [1402]. **Moving** [202, 1056, 2190]. **Mozambique** [489]. **MPA** [1513, 666]. **MPAs** [769]. **MRI** [1042]. **mRNA** [1782]. **MS** [321, 2122]. **MSFD** [2152]. **MSI** [2061]. **MTC** [103]. **Mucus** [1323, 1309]. **Mud** [2165, 2213]. **Muddy** [617, 1236]. **muelleri** [308]. **Multi** [1096, 478, 1059, 82, 1349, 1485, 1595, 1844, 421, 1634, 1778, 748, 695, 1370, 1390, 2039, 1247, 1904, 2006, 2058, 1633, 1872, 693, 1989, 1254, 128]. **Multi-Annual** [693]. **Multi-Decadal** [421, 2039, 1872]. **Multi-Dimensional** [1059]. **Multi-Disciplinary** [1904]. **Multi-Gear** [1595]. **Multi-Metric** [1778]. **Multi-Model** [1370]. **Multi-Objective** [1485, 1634]. **Multi-Rotor** [478, 1247]. **Multi-scale** [82, 128]. **Multi-Species** [1844, 2006, 1254]. **Multi-Spectral** [748, 695]. **Multi-Trophic** [1096, 1349, 1989]. **Multi-Use** [1633]. **Multi-Year** [2058, 1254]. **Multicellular** [1075, 1527]. **Multidecadal** [1736, 1506]. **Multidisciplinary** [2185, 1718, 1910]. **Multipatform** [531]. **Multiple** [2141, 197, 804, 1764, 814, 1920, 2181, 533, 602, 239, 664, 1817, 772, 1623]. **Multiproxy** [1325, 1519]. **Multisectoral** [1631]. **Multisensory** [2040]. **Multispecies** [1174]. **Multitechnique** [1294]. **Multivariate** [997, 1015].

**Multiyear** [1878]. **Municipal** [224, 905]. **Munitions** [1072]. **muricata** [1206]. **Murres** [994]. **Mussel** [2041, 181, 220, 2151, 2030, 1719, 1283, 2161, 60]. **Mussels** [1213, 974, 1422, 1034, 1758]. **Mutation** [487]. **Mutualism** [1205, 1111]. **Mutualistic** [325]. **Mutually** [871]. **Mutually-Supporting** [871]. **My** [2092]. **Mycoses** [11]. **Myctophid** [1994]. **Myctophidae** [1994]. **mydas** [918]. **Mytilus** [2041, 60, 1422, 2030, 1034, 1758].

**N** [937, 1051, 43, 1625, 118, 1039, 1020, 654, 1308, 1229, 1180, 572, 1689, 1495, 793, 467, 107, 311, 510]. **N&V** [1014]. **N-Depletion** [311]. **NAAMES** [1590, 1850]. **Nairobi** [215]. **Namibian** [1272]. **Nannochloropsis** [732, 711, 2145]. **Nano** [728, 1276, 152]. **Nano-plankton** [728]. **Nano-Plastic** [1276]. **nano-titanium** [152]. **Nanometric** [1177]. **Nanomolar** [684, 438]. **Nanoparticles** [1615, 152]. **NanoSIMS** [1088]. **Nanostructured** [1054]. **Nanotoxicology** [190]. **Nansen** [1019]. **Naphthenic** [1997]. **Naples** [2148]. **Nares** [1943]. **NASA** [1985]. **Nassau** [883]. **Natal** [1659, 2174]. **National** [2153, 1561, 2059, 425, 263, 1629, 1964, 1022, 1984, 2135, 5]. **Nationalities** [698]. **Nations** [651]. **Native** [1178, 2176, 2098, 142, 282]. **Natura** [1287]. **Natural** [1570, 832, 1543, 2126, 444, 2140, 1363, 935, 874, 807, 1782, 457, 348, 1140, 519, 1291, 418, 1001, 889, 424, 436, 2163, 1683, 1032, 321, 174, 213, 107, 52]. **Naturally** [1995]. **Nature** [1408]. **Nauplii** [236]. **navalis** [821, 688]. **Navigating** [2196, 151]. **Navigational** [1628]. **Navy** [785]. **Nb** [1996]. **Nd** [1097]. **Near** [1963, 997, 905, 1429, 739, 2015, 1995]. **Near-** [1429]. **Near-Shore** [739, 2015]. **Nearshore** [1009, 1790, 1146, 555, 714, 1092, 1572, 1951]. **Need** [1513, 31, 376, 1915, 1770, 497, 1767, 1715, 136]. **Needs** [2106, 1861, 753, 1833, 2086, 1900, 934, 651, 1821, 1756, 460, 1707, 1630, 1885, 1857, 1932]. **Negative** [344, 556, 1970, 20]. **Negatively** [1417, 1017, 358]. **Negotiating** [425]. **Neighboring** [606]. **Nematocysts** [1441]. **Nematode** [697]. **Nematodes** [558]. **Nematostella** [350]. **NeMO** [1985]. **NeMO-Net** [1985]. **Neodymium** [1356, 916, 1027]. **Neomphalina** [882]. **Neonate** [665]. **Neoparamoeba** [553]. **Neotropical** [1507]. **Neritic** [1308]. **Nervous** [2011]. **Nest** [1737]. **Nest-to-Surf** [1737]. **Nesting** [802, 918, 1424, 713]. **Nests** [890]. **Net** [1992, 1985, 383, 839, 788, 768, 1047, 927, 1126, 984, 974, 653, 440, 672, 757, 225, 189, 1110, 504]. **Netherlands** [416]. **Network** [642, 1625, 1451, 1340, 1819, 1917, 632, 1682, 1779, 1991, 1632, 500, 724, 2008, 1692, 1803, 1866, 1629, 1993, 1287, 2207, 1333]. **Networking** [2194]. **Networks** [1648, 1277, 1259, 1198, 1485, 1882, 885, 1997, 363, 2133, 620, 96]. **Neural** [1259, 632, 2133, 620]. **Newfoundland** [814, 1840, 1159]. **Newly** [1789]. **Next** [1648, 1890, 1500, 1985, 1249, 1685, 1743, 500, 10]. **Next-Generation** [1985, 1685, 10]. **NH** [396]. **Niche** [1478, 289, 1274, 814, 725, 108]. **Niches** [1216, 963, 1586]. **Nickel** [444].

**Nicoya** [1594]. **Nigerian** [1412]. **Night** [2007, 1282, 2193, 1425, 1918, 419, 2168]. **Night-Time** [1425, 1918, 2168].  
**Niña** [2093, 1960]. **Ningaloo** [1732, 2010]. **Niño** [1960, 2093, 1417, 1298, 1732, 1524, 1664, 1493, 625, 1924]. **Niño-Related** [1417]. **Nitrate** [347, 1361, 3, 78, 107]. **Nitrate/Nitrite** [347]. **Nitric** [20].  
**nitrifying** [113]. **Nitrite** [347]. **Nitro** [1686]. **Nitrogen** [2134, 937, 352, 1088, 197, 594, 1733, 873, 1610, 519, 732, 277, 1405, 325, 764, 1293, 282, 453, 2202, 1347, 600, 644, 1563, 1051, 480, 2081, 2128, 157, 54, 147, 238, 16, 106, 66]. **Nitrogen-Fixing** [937]. **Nitrogenous** [1023]. **Nitrous** [1625, 654, 516, 243, 1235, 1079]. **NMDA** [1024]. **No** [1793, 1139, 1187, 1175, 1126, 984, 666, 816, 396, 49, 1262]. **No-Take** [1139, 1175, 666, 816]. **NOAA** [1944, 2208, 988, 1913]. **NOAA-PMEL** [1913]. **nobilis** [710]. **Noctiluca** [1305, 1808]. **Nodularia** [1805]. **Nodule** [2067, 1582, 1048]. **Nodules** [595, 392]. **Noise** [2177, 478, 2069, 2110, 1813, 1969, 523, 601, 1188, 175]. **Non** [1570, 389, 167, 1178, 1037, 1652, 553, 807, 953, 1931, 1273, 1285, 1945, 410, 653, 831, 1986, 664, 759, 1817, 2085, 2078, 1544, 1253, 132]. **Non-** [664]. **Non-01** [831]. **Non-additive** [1817]. **Non-compliance** [167]. **Non-conservative** [1945]. **Non-cooperative** [2085]. **Non-destructive** [553]. **Non-indexed** [1037]. **Non-indigenous** [410, 2078, 1544, 1253]. **Non-intrusive** [759]. **Non-intuitively** [653]. **Non-invasive** [389, 1931]. **non-market** [132]. **Non-Native** [1178]. **Non-photochemical** [1285]. **Non-random** [807]. **Non-scleractinian** [1652]. **Non-silicifiers** [953]. **Non-tidal** [1273]. **Non-use** [1570]. **Non-zooxanthellate** [1986]. **Nonpolar** [1226]. **Nordic** [1182, 2131]. **Normalization** [1279]. **normani** [777]. **Norte** [1753]. **North** [844, 1094, 21, 1765, 1429, 2054, 406, 1759, 186, 1402, 548, 1626, 491, 1590, 118, 1680, 1166, 1799, 1308, 886, 1822, 1382, 2079, 1028, 1241, 873, 615, 1036, 1282, 769, 1061, 339, 2060, 818, 35, 1310, 1099, 1270, 627, 820, 2083, 1193, 1390, 2178, 2071, 2165, 2213, 269, 1617, 735, 1947, 898, 1023, 1864, 1416, 2019, 183, 1938, 231, 577, 476, 875, 1559, 1604, 150, 958, 1265, 2128]. **North-East** [627, 1390, 2128]. **North-West** [1938]. **North-Western** [1765, 1028]. **Northeast** [1601, 1744, 117, 1561, 167, 814, 1008, 1537, 281, 794, 1863, 2088]. **Northeastern** [869, 137, 795, 1623]. **Northern** [586, 826, 1059, 1384, 1581, 1464, 93, 606, 1298, 1468, 706, 1325, 1925, 809, 1418, 1180, 1089, 2129, 836, 1266, 1018, 2061, 676, 272, 918, 1923, 1035]. **Northwest** [1867, 1105, 1829, 2018, 1627, 261, 900, 1207, 1660, 453, 1422, 1083, 1058, 970]. **Northwestern** [738]. **Norway** [691, 1461, 1540, 1444, 1089, 1646, 166, 468]. **Norwegian** [1003, 973, 661, 563]. **Nose** [1288]. **Note** [896]. **nov** [1012, 1156, 1441]. **Novel** [704, 931, 777, 1091, 1661, 397, 1490, 315, 1012, 873, 1255, 1721, 353, 2033, 1053, 620, 709, 2150, 2012, 10]. **ново** [1215, 417, 2183]. **Nuclear** [1161, 1103]. **nucleata** [1750]. **Nui** [871]. **Number** [1685, 799]. **Numerical** [522, 1047, 297, 175]. **Nursery**

[720, 2033, 808]. **Nurturing** [885]. **Nusa** [1681]. **Nutrient** [472, 1135, 1259, 1321, 1392, 1229, 1346, 1241, 626, 1144, 1721, 1377, 229, 897, 1354, 974, 2045, 620, 1026, 1261, 1045, 612, 504, 105, 71]. **Nutrient-** [1045]. **Nutrient-Limited** [2045]. **Nutrients** [9, 1274, 441, 494, 1494, 1023, 179, 1235, 1079, 1032]. **nutritional** [131]. **Nutritionally** [651]. **NW** [880, 922, 581, 793, 1576].

**O** [1036, 711, 1625, 1259, 654, 135, 1229, 334, 1180, 107, 1772]. **O-Derived** [1772]. **O'ahu** [2033]. **OBIS** [2051]. **Objective** [1485, 1634, 276]. **Objectives** [633, 818, 806]. **Obligation** [2057]. **Oblong** [309]. **oblongus** [309]. **Obscure** [617, 1170]. **Observation** [1625, 1277, 1790, 1965, 1571, 1700, 1779, 1991, 2207, 1881, 2008, 1983]. **Observational** [261, 1833, 2086, 2046, 1882, 1885, 1857, 1250]. **Observations** [1816, 528, 2106, 1861, 1358, 1859, 1890, 841, 2169, 570, 1410, 1884, 1915, 1901, 1911, 1015, 1629, 1764, 1717, 771, 1061, 764, 1663, 1605, 681, 1558, 1698, 1142, 1022, 1898, 723, 2127, 2058, 2014, 1780, 2068, 1828, 1894, 1892, 1886, 1692, 1641, 1989, 1869, 1573, 1460]. **OBservatories** [1249, 342, 745, 1426, 1542, 1399]. **Observed** [766, 1726, 2147, 251, 114]. **Observer** [1965, 404]. **Observing** [1716, 1592, 1648, 1561, 1814, 1196, 1783, 1819, 1629, 1993, 1672, 1882, 1767, 2185, 1551, 1503, 1792, 1523, 1821, 1891, 1889, 1644, 1906, 1916, 1707, 1912, 1913, 1757, 1611, 1579, 1781, 1902, 1796, 1914, 1894, 1899, 1499, 1907, 1708, 1909, 1896, 1606, 1935, 1803, 2032, 1888, 1559, 1709, 2001, 1893]. **Obtaining** [547]. **OC** [736]. **OC-CCI** [736]. **occidentalis** [2115]. **Occur** [1288]. **Occurrence** [486, 659, 1089, 1025, 380]. **occurring** [1448]. **Occurs** [2016]. **Ocean** [1438, 863, 2166, 548, 1941, 1816, 182, 712, 1176, 1675, 1754, 261, 742, 1625, 997, 2089, 1561, 528, 1277, 1417, 1693, 1859, 1259, 919, 285, 1908, 547, 1734, 1826, 596, 289, 803, 1500, 593, 242, 1496, 2086, 570, 1410, 2155, 1884, 2082, 214, 716, 1985, 1790, 660, 850, 1046, 1967, 204, 1654, 1822, 1987, 1915, 1081, 1901, 1850, 1911, 1196, 1490, 657, 1764, 741, 1383, 2075, 211, 1806, 565, 209, 457, 1533, 1900, 934, 240, 1882, 1767, 923, 1248, 1973, 1788, 2185, 1268, 885, 1922, 2113, 188, 441, 552, 1949, 700, 1792, 1302, 511, 461, 1523]. **Ocean** [953, 1821, 632, 650, 851, 719, 1889, 1786, 1756, 1717, 769, 1618, 1775, 811, 2112, 1906, 295, 1528, 258, 603, 746, 978, 1707, 957, 1310, 293, 583, 926, 1605, 1791, 868, 195, 2206, 1913, 1897, 1862, 1757, 1558, 446, 714, 1698, 2165, 533, 1991, 2207, 1142, 1300, 194, 250, 1611, 758, 995, 508, 1579, 2109, 1881, 1743, 1857, 1440, 1875, 1218, 1940, 729, 1796, 898, 470, 1117, 1465, 726, 662, 1416, 1401, 2127, 2040, 1141, 338, 1933, 2116, 1994, 620, 2014, 2099, 1633, 2102, 1976, 1942, 2214, 225, 1914, 1910, 1426, 1894, 1899, 1907, 1708]. **Ocean** [2034, 1909, 1071, 1855, 1647, 2008, 1896, 1739, 1883, 1606, 1892, 1905, 1935, 577, 1261, 1137, 1803, 1888, 438, 413, 1989, 471, 1559, 740, 1399, 254, 1983, 1866, 977, 1573, 1658, 1749, 621, 761, 1376, 1893, 1303, 27, 154, 94, 105, 61, 60, 4, 71, 34, 168, 112, 43, 1807, 2144, 1797, 1827, 491, 1329, 118, 1491, 1166, 516, 1992, 886, 513, 532, 1238, 1732, 1006, 589, 21, 1551, 1582, 1821, 1999,

692, 1649, 1537, 1943, 137, 631, 1730, 1930, 1916, 755, 1847, 1696, 512, 770, 707, 1018, 2054, 2213, 1898, 1464, 393, 1347, 838]. **Ocean** [1155, 857, 1040, 1019, 925, 1394, 1864, 825, 2058, 2147, 281, 162, 1863, 1886, 526, 1635, 1542, 432, 1869, 2047, 1761, 2198, 1995, 296, 221, 1741, 2128, 1035, 1798]. **Ocean-Atmosphere** [1900]. **Ocean-Color** [596]. **Ocean-Observing** [1913]. **OceanGliders** [1887, 2215]. **Oceanic** [1968, 1216, 1694, 1039, 422, 1308, 1571, 1631, 2097, 253, 981, 1753, 625, 813, 1976, 2008, 872]. **oceanica** [708, 187, 732, 2145]. **OceanObs'19** [2034]. **Oceanographic** [956, 2169, 720, 739, 1447, 1947]. **Oceanography** [1481, 1661, 1915, 2107, 1335]. **Oceans** [887, 741, 1806, 390, 916, 1891, 1795, 265, 554, 894, 1677, 114, 805, 637, 2008, 83]. **ocellaris** [1011]. **Octocoral** [1375]. **Oculina** [2125]. **Odor** [808]. **Off** [1570, 832, 1556, 1736, 1298, 2028, 1965, 880, 1356, 1664, 2033, 1310, 1829, 1538, 1354, 1378, 1843, 601, 1960, 1924, 1460, 1216, 613, 1260, 1512, 457, 1524, 357, 1667, 793, 442, 876, 1110, 380]. **Off-Shore** [1843]. **officinalis** [1751]. **Offs** [1715, 942]. **offsets** [4]. **Offshore** [1461, 1096, 646, 1767, 2138, 1925, 555, 369, 1841, 1429, 1834, 1408, 2012, 112]. **Offspring** [550, 41]. **Ofu** [924]. **Oil** [832, 1319, 1198, 738, 1373, 1834, 1740, 2163, 1127, 2115, 1408, 2012, 55, 112]. **oil-gas** [112]. **Okhotsk** [869]. **Okinawa** [302, 1043]. **OLCI** [632]. **Old** [2159, 1871, 1402, 591, 1544, 1445]. **OLI** [2061]. **Oligosaccharides** [286, 24]. **Oligotrich** [1136]. **Oligotrophic** [1529, 2066, 745, 372, 1310, 605, 754, 577, 1261, 81]. **Oligotrophication** [922, 1676]. **olivacea** [890]. **Olive** [802, 838]. **Oman** [1069, 354]. **omics** [145]. **Omura** [1535]. **omurai** [1535]. **On-Going** [1882]. **Onchidium** [2011]. **One** [1238, 1226, 1469, 70, 1748]. **One-Carbon** [1238]. **One-Single** [1226]. **Ones** [2085]. **Online** [1084]. **Only** [1350]. **ONNS** [632]. **Onset** [576]. **Ontogenetic** [429, 1593]. **Ontogeny** [1185]. **Onychoprion** [884]. **Open** [1259, 1487, 422, 1037, 1973, 632, 855, 1786, 2206, 446, 758, 1464, 1520]. **Open-Ocean** [446]. **Operated** [771, 2147, 1602]. **Operational** [776, 1915, 1558, 1025]. **Operationalize** [1715]. **Operations** [1467, 2037]. **Opinions** [2159]. **Opportunism** [838]. **Opportunistic** [2177, 1540]. **Opportunities** [394, 1091, 934, 864, 1362, 1230, 512, 2190, 363, 1596, 1568, 1677, 1636]. **Opportunity** [2034]. **Opposing** [1041]. **Optical** [606, 1985, 581, 1578, 1428, 632, 1936, 939, 1801, 756, 1054, 927, 1018, 194, 1077, 424, 203, 857, 2058, 526, 155, 790]. **Optically** [2179]. **Optics** [2205]. **Optimal** [665, 2200, 177, 2191, 1471]. **Optimization** [330, 1485, 745, 2161]. **Optimizing** [1435]. **Options** [1400, 171, 780, 1739]. **Optode** [919, 886]. **Optofluidic** [928]. **Oranges** [772]. **Orbicella** [139, 2135]. **Orchestration** [1509]. **Order** [376, 1771]. **Organic** [182, 2092, 201, 261, 617, 1020, 1393, 803, 1181, 257, 867, 581, 513, 1101, 1676, 1311, 1386, 481, 1113, 1655, 741, 1852, 1226, 211, 1161, 1103, 1729, 287, 184, 313, 1664, 1786, 460, 920, 1452, 248, 1463, 2097, 926, 288, 2136, 561, 686, 1945, 1194,

1317, 194, 316, 424, 203, 1347, 895, 854, 857, 451, 535, 1141, 400, 186, 1237, 623, 321, 333, 174, 213, 761, 1256, 40, 157, 115, 29, 155, 165, 65, 23, 143, 150, 168].  
**Organisation** [1867]. **Organisations** [2059]. **Organism** [1030, 1087].  
**Organisms** [628, 1788, 822, 537, 1004, 788, 584, 1054, 1183, 1034, 265, 1157, 1996, 1541, 784, 2205, 22, 96]. **Organization** [1237, 15]. **Organochlorine** [2065]. **organotin** [37]. **orientalis** [1384]. **Origin** [330, 1101, 1182, 817, 2192, 1148, 1659, 571, 1256, 57]. **Ormonde** [2165, 2213]. **Oscillation** [1506]. **Osculum** [1341]. **OsHV** [219]. **OsHV-1** [219]. **Osmotic** [1299]. **OSPAR** [1435, 1377]. **ostenfeldii** [1422].  
**Osteoporosis** [874]. **Ostreopsis** [1148]. **Otaria** [1389]. **Other** [1570, 309, 2091, 1871, 1443, 635, 672, 1541, 1025, 1952, 1169, 795]. **otherwise** [16]. **Otolith** [1413, 2174, 2191]. **Otoliths** [1659]. **Otsuchi** [288]. **Otter** [1442]. **Otterboards** [1998]. **Our** [617, 1806, 460, 780, 234, 1892, 1688].  
**Outbreak** [1254]. **Outcome** [1725]. **Outcomes** [479, 264, 527, 1962, 1951]. **outer** [15, 768]. **Outflow** [2165, 2213]. **Outlook** [988]. **Outperform** [2085].  
**Output** [798]. **Outputs** [1306]. **Outreach** [818, 966]. **Overcoming** [142].  
**Overfishing** [671, 1373, 26]. **Overhauling** [2102]. **Overlap** [1267].  
**Overlooked** [502]. **Overturn** [978]. **Overturning** [1726]. **Overview** [548, 1590, 223, 2091, 1850, 427, 908, 227, 1497, 312, 79, 2107].  
**Overwintering** [765, 800]. **Oxic** [287, 347]. **Oxic-Anoxic** [347]. **Oxidation** [347, 520, 428, 1141, 438]. **Oxidative** [187, 622]. **Oxide** [1625, 654, 516, 243, 1235, 1079, 20]. **Oxides** [428]. **oxidized** [16]. **Oxidizing** [1102, 705, 17]. **Oxygen** [919, 1482, 1146, 1458, 518, 445, 2185, 880, 873, 2080, 1299, 2204, 597, 428, 1378, 515, 2045, 1479, 1933, 1189, 1818, 644, 1522, 1699, 1924, 1275, 504, 1031, 1353, 2128, 17]. **Oxygen-Based** [1933].  
**oxygen-deficient** [17]. **Oxygen-Depleted** [597]. **Oxygen-Poor** [1275].  
**Oxygenation** [1736, 519]. **Oxyrrhis** [205]. **Oyashio** [571]. **Oyster** [1278, 550, 629, 277, 1240, 1832, 2129, 604, 816, 1007, 619, 682, 267, 142].  
**Oysters** [1276, 842].

**P** [1165, 43, 311, 510]. **P\*** [493]. **P-** [311]. **P-Depleted** [1165]. **PACE** [552].  
**Pacific** [1807, 1329, 1166, 444, 516, 1959, 1582, 1638, 1282, 1061, 637, 1930, 755, 2178, 2054, 838, 1023, 825, 2147, 281, 1869, 150, 2198, 958, 1265, 217, 1561, 1020, 900, 1799, 1094, 1238, 1382, 1954, 1458, 148, 550, 1854, 1430, 1297, 1595, 1008, 2063, 1944, 2208, 454, 954, 2181, 253, 1755, 493, 981, 1022, 571, 19, 1464, 1940, 2157, 664, 726, 1499, 216, 189, 1863, 2088, 186, 1169, 938, 1128, 1613, 1235, 1079, 2150, 872, 2021]. **pacifica** [2172]. **package** [95]. **PAH** [416]. **PAHs** [113, 1034]. **Pair** [1831]. **Palinurus** [989]. **palmata** [280, 1327].  
**Pan** [500, 1223]. **Pan-Arctic** [1223]. **Pan-European** [500]. **Pandarus** [910]. **panicea** [1341, 1794]. **Panmixia** [1211]. **Panopea** [1266]. **Pantropical** [454].  
**Paradigm** [978, 129]. **Paradigms** [1147, 142]. **Paradox** [563]. **Paraffin** [1025]. **Paragorgia** [1309]. **Paralytic** [1342, 1510, 1412, 1266]. **Parameter** [1523, 359]. **Parameterization** [2191, 1376]. **Parameterizations** [1326].  
**Parameters** [550, 744, 1494, 2157, 470, 925, 620, 1489]. **Parametrization**

[582]. **Parasite** [1035]. **Parasites** [1389]. **Parasitic** [906]. **Park** [2153, 263, 2003, 1022]. **Parks** [1964]. **Part** [1329, 595, 1003, 1255, 611, 1107, 1108]. **Partial** [515, 1327, 1938]. **Partially** [1139]. **Partially-Protected** [1139]. **Participatory** [899, 835, 431]. **Particle** [1941, 846, 1326, 1432, 2066, 665, 1863, 1031, 212]. **Particle-Associated** [1031]. **Particles** [658, 1276, 1030, 258, 571, 683, 1403, 1071, 186, 337, 1137, 1033, 374, 1798]. **Particular** [342]. **Particularly** [2038]. **Particulate** [741, 1852, 1143, 530, 453, 857, 535, 179, 503, 150]. **Partitioned** [242]. **Partitioning** [590, 728, 1274, 1769]. **Partner** [1975]. **Partnership** [2169]. **Partnerships** [835, 206, 1913]. **parvum** [1088]. **Passive** [1534]. **Past** [1329, 1684, 371, 1638, 953, 1470, 1115]. **Patagonia** [1208]. **Patagonian** [1325, 1291, 1464, 2183]. **patagonica** [2125]. **patch** [63]. **Path** [2165, 2213]. **Pathobiome** [501]. **Pathogenesis** [2141]. **Pathology** [865, 353]. **Paths** [316]. **Pathway** [196, 1812]. **Pathways** [522, 2097, 1526, 1495, 652]. **Pattern** [1613]. **Patterning** [1433]. **Patterns** [1840, 486, 795, 846, 2148, 1468, 1028, 899, 1854, 555, 692, 1786, 2139, 1171, 736, 453, 967, 891, 451, 1934, 743, 813, 775, 216, 1763, 964, 2056, 2198, 1622, 1353, 30, 42, 116, 79]. **Pay** [979, 172]. **payment** [110]. **PCC7002** [737]. **pCO** [982, 886, 314, 1036, 928, 842, 302]. **PCR** [1064, 1297, 791]. **PCR-Based** [791]. **Pecten** [1456]. **Peeling** [2191]. **Pelagic** [1678, 521, 202, 1649, 347, 631, 1483, 1310, 1357, 1599, 310, 1851, 1040, 1607, 437, 1777, 2147, 1849]. **pelagicum** [1318]. **Pelagos** [659, 1765]. **Pelagothuria** [2147]. **Pellet** [1696]. **Pellets** [490]. **Peltospirid** [882]. **Penetration** [1841]. **Penguin** [1195]. **Penguins** [1714]. **Penida** [1681]. **Peninsula** [795, 1612, 1493]. **Pensacola** [764]. **People** [675, 2082, 2040, 2020, 1803]. **Peracarid** [1867]. **Perceived** [1178, 633]. **Perception** [1296]. **Perceptions** [439, 993, 698, 673, 1620, 1546, 390, 434, 391, 1084, 672, 1702, 468, 1369]. **Perch** [1782]. **percula** [1215]. **Performance** [1005, 247, 745, 835, 1802, 1589, 799, 2199, 1115, 74, 135]. **periodicity** [41]. **Permafrost** [1194]. **Permitting** [1007]. **Pernambuco** [1164]. **Peroxide** [326, 257, 867, 622, 436, 438]. **Perpetuates** [2167]. **Persian** [987, 1069, 1671]. **Persian/Arabian** [1069, 1671]. **Persistence** [343, 2021]. **Persistent** [517, 1679]. **Persistently** [1495]. **Personal** [905]. **Perspective** [2152, 2026, 1121, 1070, 1154, 860, 1949, 1587, 1871, 1505, 253, 1067, 1250, 2107, 2012, 1700]. **Perspectives** [1196, 1073, 1453, 460, 637, 2116, 234, 1643, 1865, 1888, 1051, 1727, 97, 34]. **Perth** [1641, 555]. **Pertinent** [1818]. **Perturb** [1997]. **pertusa** [593, 76, 901]. **Peru** [1736, 1298, 1664, 1960]. **perurans** [553]. **Peruvian** [521, 2080, 459]. **Pest** [1953]. **Pesticides** [2065]. **Petrels** [1562]. **Petroleum** [1025]. **pH** [214, 716, 917, 893, 1618, 811, 928, 336, 1107, 1108, 1550, 2127]. **Phaeobacter** [1119]. **Phaeocystis** [906, 362, 927]. **Phaeophyceae** [1958]. **Pharmaceuticals** [905]. **Phase** [2095, 1636]. **Phases** [946, 158]. **Phenol** [211]. **Phenology** [242, 681, 1045, 1149]. **Phenols** [288, 168]. **Phenotypes**

[2119]. **Phenotypic** [1191, 1847, 2172, 2125]. **Philippine** [59, 224]. **Philippines** [680, 1202, 1200]. **Philopatry** [495]. **PhnW** [196]. **PhnX** [196]. **phosphatase** [71]. **Phosphate** [1166, 1146, 1165, 745]. **Phosphomonoesters** [1311]. **Phosphonates** [196]. **Phosphoprotein** [1832]. **Phosphorus** [951, 1236, 1207, 1496, 1146, 1311, 1143, 519, 1405, 362, 1317, 1233, 106, 131]. **Photic** [597]. **Photo** [191, 1202, 1589, 1305, 1808]. **Photo-Identification** [1202]. **Photo-Physiological** [1589, 1305, 1808]. **Photo-Protection** [191]. **Photoacclimation** [1140, 773, 1419, 122]. **Photochemical** [855, 1036, 976, 1285]. **photodegradation** [143]. **Photoflocculation** [193]. **Photogrammetry** [856, 1368, 1742]. **Photographs** [1802]. **Photophysiological** [1980]. **photophysiology** [56]. **Photoproduction** [436]. **Photoprotective** [1285, 942]. **Photosymbionts** [1158]. **Photosynthesis** [718, 1427, 440, 757, 925, 1376, 122, 66]. **Photosynthesis-Irradiance** [925]. **Photosynthetic** [1438, 187, 2119, 397, 923, 1788, 537, 470, 799, 150]. **Photosystem** [419, 759]. **pHT** [1107, 1108]. **Phycosphere** [176]. **Phycotoxins** [1325]. **Phyla** [226]. **Phylogenetic** [1599]. **Phylogeny** [1930, 1942, 2214]. **Phylogeographic** [1211]. **Phylogeography** [2030, 2009]. **Phymatolithon** [1617]. **physalus** [2193]. **Physeter** [369]. **Physical** [1482, 1284, 1432, 1962, 864, 415, 1429, 1034, 1155, 162, 1914, 1989, 977, 1335, 114]. **Physicochemical** [2016]. **Physiological** [1747, 1005, 1024, 850, 1046, 1383, 629, 706, 1978, 927, 1589, 366, 1305, 1808]. **Physiology** [1510, 1455, 1394, 84]. **Phyto** [1162]. **Phyto-** [1162]. **Phytodetritus** [990]. **Phytoplankton** [1075, 1565, 1216, 1642, 2144, 396, 1009, 1785, 547, 596, 242, 678, 582, 660, 532, 1609, 618, 1311, 807, 1512, 457, 1114, 16, 1274, 1140, 441, 1720, 1203, 932, 1144, 1946, 2212, 719, 773, 624, 920, 1978, 488, 421, 229, 897, 1778, 1443, 748, 695, 218, 362, 1725, 1354, 1293, 681, 2071, 533, 736, 2045, 388, 402, 625, 535, 1023, 925, 311, 556, 876, 358, 1261, 526, 1635, 432, 2047, 1982, 1761, 412, 1508, 1995, 762, 1212, 1741, 1527, 14, 47, 35, 23]. **Phytoplankton-Derived** [920]. **PhytoPP** [1785]. **Phytosterols** [1560]. **Pico** [728]. **Pico-** [728]. **Picoeukaryotes** [556]. **Picophytoplankton** [868, 366]. **Picoplankton** [1438]. **Picoplanktonic** [349, 1301]. **Picture** [1558]. **Pieces** [837]. **Pigment** [624]. **Pigment-Based** [624]. **Pigmentation** [799]. **Pigments** [348]. **Pillar** [1473]. **Pillars** [1684]. **Piloted** [1133]. **Piloting** [1819]. **Pinctada** [1304]. **Pinna** [710]. **Pinnipeds** [351]. **Pipeline** [1822]. **Pipelines** [1666]. **pistillata** [122, 397, 594]. **Pitcairn** [810]. **Pitzer** [341]. **Place** [579]. **Places** [579, 780]. **Placing** [1965]. **Plan** [2159, 1175, 225, 1766, 141]. **plana** [1074]. **Planctomycetes** [1431]. **Plankton** [1787, 1680, 730, 2048, 614, 560, 1629, 2066, 1241, 367, 1686, 1685, 1325, 1493, 357, 848, 836, 974, 936, 574, 437, 544, 1738, 1071, 1223, 1817, 577, 702, 652, 728, 125, 107]. **Planktonic** [1536, 933, 1663, 605, 210, 456, 17]. **Planning** [642, 1966, 843, 1437, 641, 1660, 746, 1614, 1634, 1109, 780, 1719, 2102, 272, 166].



**Plans** [1246, 1160]. **Plant** [1793, 1433, 135]. **Plants** [284]. **Planulation** [1828]. **Plaque** [353]. **Plaque-Like** [353]. **Plastic** [2152, 351, 2090, 659, 1104, 797, 1276, 555, 2033, 823, 2087, 1169, 1619, 1289, 2105, 522, 1168]. **Plastic-Associated** [1104]. **Plasticity** [1847, 459, 2172, 2125]. **Plastics** [2090, 2142, 1765, 1145, 68]. **Plata** [870]. **Plate** [566]. **Plateau** [1356]. **Platform** [1820, 2050, 1151, 1965, 771, 2064, 1991, 2207, 677, 1910, 1402]. **Platform-Scale** [677]. **Platforms** [855, 839, 1843, 2012]. **Platichthys** [1156]. **Play** [592]. **Players** [502, 793]. **Plays** [1186, 258]. **Pleuronectiformes** [1156]. **ploidy** [158]. **plumbeus** [1414]. **Plume** [1027, 740, 119, 1181, 1274, 768]. **Plunge** [200]. **PMEL** [1913]. **Poaching** [918]. **Pocillopora** [57, 1316, 1117, 85, 1177, 1828]. **Point** [1348, 1466, 100]. **Point-Source** [1466]. **Poisoning** [1412]. **Polar** [660, 1085, 1226, 1922, 1066, 1204, 1439, 1894, 1223, 587, 2130, 476]. **Polarimetry** [1717]. **Polarization** [1123]. **Poleward** [1872]. **Policies** [1147]. **Policy** [377, 524, 304, 1762, 2057, 1764, 818, 195, 1577, 370, 1246, 1160, 19, 758, 178, 1055, 806, 1231, 1651, 591, 588, 172, 913, 1398, 1230, 806]. **Pollutant** [550]. **Pollutants** [550]. **Pollute** [2142]. **Polluted** [427]. **Pollution** [2152, 1014, 2090, 1348, 797, 555, 523, 1169, 2074, 1424, 8]. **Polychaete** [356]. **Polychaetes** [846, 45]. **Polychlorinated** [2065]. **Polycyclic** [1578, 416, 2053]. **Polycystine** [820]. **polyedrum** [1205, 1111]. **Polyethylene** [576]. **polykrikoides** [1928]. **Polymetallic** [595, 1582, 392]. **polymorpha** [1544]. **Polymorphism** [942]. **Polynesia** [788]. **Polynoidae** [1043]. **Polyp** [1321]. **Polyphosphates** [1311]. **Polysaccharide** [498, 1237]. **Polysaccharide-Rich** [1237]. **Polystyrene** [1002]. **Polyunsaturated** [2145]. **Pomeranian** [1403]. **Pool** [1037, 1165]. **Pools** [1921, 2063]. **Poor** [1437, 1275]. **Population** [1807, 426, 1417, 1445, 640, 1684, 1974, 1518, 1640, 1681, 1418, 2033, 1873, 1202, 910, 1464, 2096, 1864, 883, 1083, 784, 2183, 2115, 254, 688, 1758, 943, 616, 45, 1069]. **Population-** [254]. **Population-Level** [1417]. **Populations** [340, 2108, 586, 1337, 1504, 427, 2098, 1339, 639, 454, 1375, 1746, 2181, 1133, 2146, 2157, 2174, 1958, 1280, 1544, 57, 98]. **Pore** [1161, 1103, 1048, 1622]. **Porewater** [1945]. **Porifera** [863, 1441]. **Porites** [1053, 381, 433]. **Porpoise** [1151]. **Port** [826, 671]. **Portable** [1118]. **Portal** [746, 1940]. **Ports** [2053]. **Portugal** [2089]. **Portuguese** [840]. **Posed** [1626, 1953, 227]. **Posidonia** [708, 187, 245]. **Position** [1248]. **Positive** [556, 1951]. **Positively** [1337]. **Possibilities** [171]. **Possible** [1782, 1846, 1177, 312, 1563]. **Post** [946, 897, 1357, 1217]. **Post-guard** [946]. **Post-processing** [1217]. **Post-settlement** [1357]. **Post-Spring** [897]. **Postmolt** [1082]. **Postulating** [756]. **Potency** [1492]. **Potential** [863, 389, 1637, 1461, 478, 1397, 1121, 1349, 1640, 1981, 629, 720, 1504, 1093, 334, 427, 2118, 1810, 603, 237, 465, 2083, 622, 1332, 2197, 942, 1067, 898, 317, 1258, 794, 901, 186, 1167, 404, 1600, 2074, 1868, 1095, 1333, 701, 1665, 2145, 2065, 1111, 616, 1369, 44, 110]. **Potentially** [858, 1297]. **Potter** [2118]. **poverty** [110]. **Power** [968, 166]. **Powered** [2050]. **Practical** [1634]. **Practice** [223, 551, 1984, 911]. **Practices** [434, 1743, 1474, 1025, 1970, 1399].

**Prawn** [1789]. **Pre** [405, 713]. **Pre-nesting** [713]. **Pre-processing** [405]. **Precautionary** [395]. **Precipitation** [451]. **Precise** [1742]. **Precursor** [748, 695, 1441]. **Precursors** [182]. **Predation** [280, 387, 2019]. **Predator** [1312, 1037, 367, 1360, 2071, 1281, 1252, 101]. **Predators** [814, 246, 729, 1394]. **Predict** [1498, 2186, 1433]. **Predictability** [615, 1188]. **Predicted** [1734, 43]. **Predicting** [962, 202, 211, 356, 1961, 988, 1439, 1902, 2133, 1471, 1379]. **Prediction** [2182, 1350, 1882, 1568, 1857, 225]. **Predictions** [297, 1894, 693]. **Predictive** [641]. **predictor** [88]. **Predominant** [813]. **Preference** [818]. **preferences** [132]. **Preferential** [1311]. **Preliminary** [890, 1862, 2068]. **Prenatal** [890]. **Prerequisite** [1818]. **Presence** [1102, 1350, 1777]. **Presence-Only** [1350]. **Present** [1684, 371, 1453, 1638, 953, 237, 1470, 2186, 1115, 1868, 1095]. **Present-Day** [1868]. **Preservation** [791, 1516, 1839]. **preserve** [392]. **Preserved** [647]. **Pressing** [1513]. **Pressure** [1024, 220, 185, 355, 380]. **Pressures** [968, 1486, 1104, 995, 772]. **Presumed** [1534]. **Prevalence** [280, 134]. **Prevent** [308, 362]. **Prevents** [881]. **Previously** [1798]. **Prey** [426, 367, 1360, 814, 1148, 233, 2071, 1650, 725, 1035, 1305, 1808]. **Price** [407, 853]. **Priced** [853]. **Prices** [853]. **Primary** [1968, 1785, 375, 1229, 518, 860, 441, 1144, 2118, 839, 877, 676, 1933, 225, 1855, 189, 1759, 1374, 1110, 504, 621, 1212, 1741, 1376, 1519, 18]. **Priming** [1793, 210]. **Primnoa** [1060, 2172]. **Princess** [774]. **Principle** [919, 514]. **Principles** [479, 551, 1489, 29]. **Print** [998]. **Priorities** [1331, 1760, 1703, 1900, 934, 1183, 1245, 34]. **Prioritize** [2180]. **Prioritizing** [1575]. **Private** [1913]. **Proactive** [1714]. **Probabilistic** [299]. **Probable** [217, 572, 1689]. **Problem** [1340, 1537, 11]. **Problems** [1679]. **Proboscia** [770, 707]. **Procedure** [1226]. **Proces** [2075]. **Process** [420, 1756, 1494, 193]. **Processes** [1176, 2140, 565, 1745, 1030, 1922, 1356, 1997, 916, 1295, 2118, 1291, 1065, 460, 835, 1316, 1344, 431, 2202, 531, 1440, 1812, 2160, 1324, 883, 82, 114]. **Processing** [2201, 335, 1279, 990, 1600, 405, 95, 1217]. **Prochlorococcus** [306, 1419, 2164, 849]. **Produced** [1476, 800, 374, 1570, 33]. **Producers** [1229]. **produces** [52]. **Producing** [1342, 1510, 947]. **Product** [1500, 52]. **Production** [1176, 1992, 197, 187, 518, 830, 860, 441, 932, 1144, 902, 2118, 655, 1452, 462, 839, 788, 1463, 1483, 293, 583, 836, 1495, 336, 1193, 1013, 974, 1588, 2045, 2039, 877, 1134, 676, 1313, 225, 1805, 358, 189, 1759, 1374, 2161, 1110, 896, 432, 504, 761, 433, 1376, 18, 150]. **Productive** [2120]. **Productivity** [1785, 375, 156, 1933, 1549, 1989, 2047, 1212, 1741, 1519, 162]. **Products** [1648, 874, 934, 1756, 905, 889, 779, 1038, 1052, 588, 11]. **Professional** [1770]. **Profiler** [2112]. **Profiles** [1242, 1479]. **Profiling** [839, 1367, 604, 2127, 783, 1289]. **Profitability** [1776]. **Program** [1787, 1850, 1910, 966, 404]. **programmes** [110]. **Programs** [1435, 2031]. **Progress** [2104]. **Project** [1329, 733]. **Projected** [1438, 1004, 2197, 251, 114]. **Projecting** [923, 903]. **Projections** [1068]. **Projects** [1705]. **Prokaryote** [1293, 587]. **Prokaryotes** [937, 1190, 932].

**Prokaryotic** [457, 293, 583, 1763, 2053, 221]. **prolifera** [65]. **Proliferation** [362]. **Proline** [186]. **Prolonged** [464]. **Promote** [311]. **Promoters** [284]. **Promotes** [2071]. **Pronounced** [613]. **Propagation** [2176, 1153]. **Proper** [519]. **Properties** [606, 1432, 513, 1182, 1428, 1936, 1054, 790, 424, 1976, 1338, 155]. **Property** [328]. **proportion** [46, 58]. **Proposal** [724]. **Proposed** [679, 1105, 1083]. **Propulsive** [1998]. **Pros** [717]. **Prospects** [1533, 164, 110, 172]. **Prosthiostomum** [1988]. **Protandric** [1191]. **Protandric-Simultaneous** [1191]. **Protandry** [1191]. **protease** [15]. **Protected** [180, 642, 1680, 167, 264, 2094, 1722, 802, 1028, 659, 1485, 1201, 1681, 541, 1154, 700, 1139, 769, 1548, 465, 96, 666, 672, 735, 1195, 177, 871, 1333, 385]. **Protecting** [864, 1160, 1246]. **Protection** [727, 191, 2113, 246, 995, 2070]. **Protective** [711]. **Protein** [330, 942, 337, 1137, 2150, 46, 58, 15, 67]. **Protein-Level** [2150]. **Proteins** [1134, 1509, 50]. **Proteobacteria** [705, 17]. **Proteome** [373]. **Proteomic** [1080]. **Proteomics** [50, 1809]. **Protist** [597, 791, 456, 67]. **protist-bacterial** [67]. **Protists** [944, 1421]. **prototype** [53]. **Protozoan** [694]. **ProVal** [1367]. **Provenance** [320]. **Provide** [528, 255, 1091, 1993, 511, 1192, 1449, 546]. **provided** [21]. **Providence** [1445]. **Providencia** [1545]. **provides** [28]. **Province** [828]. **Provinces** [850, 1046]. **Proxies** [828, 1413, 203, 857]. **Proximity** [1807]. **Proxy** [671, 1686, 543]. **Prymnesiophytes** [556]. **Prymnesium** [1088]. **psaA** [1148]. **Pseudochattonella** [1492]. **Pseudomonas** [2036]. **pseudonana** [770, 707]. **Pseudovibrio** [1012]. **PSICAM** [1466]. **PSII** [1212]. **PSP** [1412]. **Pterois** [87, 1724]. **Pteropods** [1417, 1693]. **Public** [1913, 1084, 574, 132]. **Publications** [339]. **Published** [487]. **Puerto** [1234]. **Pump** [491, 2066, 2097, 154]. **Pumped** [1752]. **Purified** [1108]. **Purple** [1530, 1108]. **Purpose** [1630]. **purpuratus** [2093, 1530]. **purpurea** [1396]. **Purse** [805, 237, 680]. **Purse-Seine** [237]. **Pursuit** [175]. **Push** [994]. **pusilla** [362]. **Putative** [949]. **puteoserpentis** [220]. **putri** [774]. **Putting** [1523, 399]. **Puzzle** [837]. **PVC** [1030]. **Pygmy** [1534]. **pyrene** [1030]. **Pyrodinium** [1469]. **Pyrogenic** [530]. **pyrosequencing** [25]. **Python** [2201].

**Q** [390]. **Qingduizi** [2065]. **Qualitative** [807]. **Qualities** [842]. **Quality** [2169, 1232, 764, 1367, 859, 1919, 1494, 276, 891, 819, 341, 1539]. **Quality-Controlled** [341]. **Quality-Related** [891]. **Quantification** [241, 701, 100]. **Quantified** [1044, 933]. **Quantify** [873, 855, 1217]. **Quantifying** [858, 1881, 452, 154, 1250]. **Quantitative** [1326, 1037, 807, 1360, 626, 1297, 1746, 1663, 267]. **Quantity** [859, 535]. **Quantum** [436, 174, 213, 1376]. **Queen** [671]. **Queensland** [1524]. **queenslandica** [429, 398, 817]. **Quenching** [708, 1285]. **Quest** [1975]. **Questions** [2092, 376, 1362, 1480, 1055]. **Quorum** [708, 1129, 258]. **Quotas** [2063, 1752].

**R** [95]. **R.** [1391]. **Radar** [2049, 1632, 500]. **Radial** [1321, 135]. **Radiance**

[898]. **Radiances** [552]. **radiata** [931]. **Radiated** [2177]. **Radiation** [934, 1788, 537, 1206, 125]. **Radiative** [1687]. **Radical** [336, 193]. **Radiographic** [971]. **Radiolarian** [1750]. **Radiolarians** [820]. **Radiometer** [1063]. **Radiometric** [1367]. **Radium** [1823]. **RAIA** [342]. **Raising** [1984]. **random** [807]. **Range** [962, 1535, 1226, 2066, 960, 1758, 28]. **Range-Expanding** [962]. **Range-Wide** [1535]. **Ranging** [1287, 1864, 169, 138]. **Raphidophyceae** [1553]. **Rapid** [326, 1363, 935, 1494, 2122]. **Rapidly** [1085, 768]. **Rare** [1968, 1097, 1684, 309, 1078, 1356, 916]. **Rariphotic** [1773]. **rassoulzadegani** [1136]. **Rate** [1141]. **Rates** [2108, 678, 923, 445, 699, 277, 1172, 1506, 241, 1495, 381, 801, 1305, 1808, 90, 124, 66]. **Rather** [1617]. **Ratio** [1063]. **Ratio** [773, 2139, 467, 41]. **Rationale** [1729]. **Ratios** [1146, 1852, 788, 526, 591]. **Ray** [1556, 2142, 1245, 1603]. **rayed** [51]. **Rays** [1681]. **rbcl** [1148]. **Re** [1236]. **Re-visited** [1236]. **Reach** [1029]. **Reaction** [319]. **Reactive** [428]. **reactivity** [165]. **Read** [1053]. **Reading** [998]. **Real** [1644, 1558]. **Real-Time** [1644, 1558]. **Realism** [403]. **Realistic** [579, 780]. **Reality** [322, 1004, 2107]. **Realized** [1216]. **really** [68]. **Reanalyses** [1557, 1883]. **Reanalysis** [1558, 1857]. **Rearing** [1669]. **Recalcitrant** [926]. **recapture** [99]. **Receiving** [905]. **Receptor** [1024]. **reciprocal** [122]. **Recolonization** [1263]. **RecoMIA** [262]. **Recommendations** [1648, 1654, 420, 1279, 911, 262]. **Reconcile** [843]. **Reconciling** [1061]. **Reconsider** [1383, 367]. **Reconsidering** [1211]. **Reconstruct** [837]. **Reconstructed** [810, 1197, 274, 1501]. **Reconstructing** [1214, 557, 1554]. **Reconstruction** [1564, 354, 796, 2139, 1742]. **Reconstructions** [1596, 1772]. **Record** [1389, 142]. **Recorded** [1260]. **Recordings** [656]. **Records** [309, 371, 1906]. **Recovered** [990]. **Recovering** [148]. **Recovers** [515]. **Recovery** [727, 1948, 263, 1974, 1400, 1467, 1504, 1093, 2112, 910, 2209, 447, 1494, 1306, 266, 1281, 1731, 2070, 1938, 132]. **Recreation** [841, 1306]. **Recreational** [1856, 1646, 253, 1369]. **Recruit** [2187]. **Recruitment** [2093, 1348, 328, 1373, 878, 1157, 1124, 1227]. **Recruits** [763]. **Rectangular** [367]. **Recurrence** [434]. **Recurring** [1473]. **Recycling** [519, 419, 1040]. **Red** [472, 1135, 706, 85, 284, 2189, 1977, 2115, 1005, 1190, 731, 1229, 830, 1733, 624, 1873, 823, 25, 388, 749, 306, 1838, 56]. **Redescription** [1930]. **Redmap** [1815]. **Redox** [1222]. **Reduce** [1334, 671, 483, 979, 1013, 1263, 721, 510]. **Reduced** [1011, 1574, 686, 1572, 16]. **Reducing** [491, 1207, 2055, 1969, 1853]. **Reduction** [1482, 1686, 1208, 347, 493, 2020, 853, 4]. **Reductions** [1377]. **Redundancy** [719]. **REE** [981]. **Reef** [815, 2141, 2153, 590, 888, 528, 502, 955, 962, 1448, 1371, 2026, 1091, 1566, 383, 1081, 1748, 448, 663, 2154, 1221, 397, 565, 1547, 1962, 1348, 398, 1583, 1681, 960, 1093, 1480, 650, 1844, 1418, 636, 1388, 353, 637, 1452, 1548, 462, 788, 781, 273, 1316, 1375, 2076, 988, 2190, 520, 2010, 1047, 584, 2016, 2044, 1427, 2015, 1184, 239, 677, 2039, 963, 967, 942, 1157, 834, 179, 2000, 546, 959, 2062, 1773, 871, 189, 1106, 1549, 964, 924, 784, 381, 413, 787, 1280, 2205, 801,

1355, 489, 996, 2128, 674, 129, 139, 96]. **reef**  
 [93, 1112, 308, 1748, 1879, 1073, 1554, 1214, 353, 714, 976, 1124, 775, 1539].  
**Reef-Building** [397, 960, 353, 924, 381, 139]. **Reef-Scale** [2153, 2039].  
**Reef-Wide** [189]. **Reefs** [340, 795, 1366, 1219, 1363, 935, 1271, 2154, 1628,  
 949, 1234, 1498, 1724, 277, 2129, 2003, 1187, 1011, 2209, 739, 816, 1457, 266,  
 1731, 1549, 1692, 2021, 1688, 127, 1168, 115, 63, 82, 25, 88]. **Reevaluating**  
 [1676]. **reevesii** [2011]. **Reference** [1629, 824, 2042, 1053, 1866].  
**Referencing** [886]. **Reflect** [1344, 974, 451, 266, 179, 964]. **Reflectance**  
 [1936, 1077, 786, 762]. **Reflecting** [626]. **Reflects** [1659]. **Refuge** [700].  
**Regenerated** [1759]. **Regeneration** [1048]. **Regime** [704, 1540, 63].  
**Regimes** [692, 2058]. **Region** [548, 1848, 580, 844, 184, 1180, 295, 584, 195,  
 1862, 793, 571, 1710, 406, 476, 468, 1924, 534, 2172, 1665, 872, 459, 1923].  
**Regional**  
 [1225, 1716, 1343, 1561, 2059, 394, 1487, 2086, 570, 1450, 1340, 618, 2028, 860,  
 495, 511, 1756, 643, 1913, 666, 1579, 1881, 1902, 1254, 480, 1836, 156].  
**Regionalization** [1376]. **Regionally** [1637]. **Regions**  
 [742, 606, 1461, 1437, 1597, 1640, 1248, 2185, 1430, 851, 1644, 2204, 1757, 412].  
**Regulating** [258]. **Regulation** [737, 1024, 2162, 1741]. **Regulations** [167].  
**Regulator** [2096, 20]. **Regulatory** [1867]. **Rehabilitated** [665]. **reidi** [256].  
**Reinforced** [2033]. **Related**  
 [2092, 1417, 1678, 1102, 1997, 1821, 2118, 1065, 764, 967, 891, 341, 2056, 50].  
**Relating** [1597, 209, 1380]. **Relation** [1732, 1467, 720, 917, 1299, 820].  
**Relational** [1521]. **Relations** [1998]. **Relationship**  
 [690, 961, 1420, 1750, 345, 1933, 2198]. **Relationships**  
 [962, 2066, 1830, 325, 293, 583, 925, 1728, 72]. **Relative**  
 [443, 1139, 975, 1838, 543, 1849, 2187]. **Relatively** [1494]. **Release**  
 [1565, 326, 665, 1828, 510]. **Released** [858, 1141, 157]. **releasing** [98].  
**Relevance** [793, 2045]. **Relevant** [640]. **Reliability** [297]. **Reliable** [671].  
**Remain** [1318]. **Remineralization** [1696, 2045, 374]. **Remobilization**  
 [1415]. **Remodeling** [732]. **Remote**  
 [180, 815, 1481, 2094, 242, 1410, 733, 810, 1547, 1767, 860, 1571, 852, 1644,  
 1133, 533, 736, 1077, 2157, 1338, 1603, 762, 616, 1376, 94]. **Remotely**  
 [1908, 771, 2147, 1602, 1052]. **Remotely-Operated** [2147].  
**Remotely-Sensed** [1052]. **Removal** [1392, 1337, 1490, 519, 215, 1408].  
**Remove** [277]. **renewable** [73]. **Repeated** [674]. **Replace** [270, 395].  
**Report** [890]. **Reported** [2177]. **Representation** [1059, 1697, 366].  
**Representations** [1271]. **Representative** [433]. **Represented** [1218].  
**Reprieves** [2168, 1425, 1918]. **Reproduction**  
 [1375, 292, 736, 1327, 1157, 1869]. **Reproductive**  
 [1640, 87, 1200, 1828, 2172, 1662, 1149, 116]. **Republic** [796]. **Require** [239].  
**Required** [1816, 392]. **Requirement** [1741]. **Requirements**  
 [1814, 1890, 2046, 1551, 1906, 1142, 1909]. **rerio** [1560]. **Rescue** [1767].  
**Research**  
 [1754, 617, 614, 560, 1037, 1264, 1654, 1822, 1442, 1555, 1383, 1993, 1269, 1462,

1505, 1446, 1385, 1273, 1138, 2196, 1991, 2207, 1396, 239, 1713, 1562, 2116, 1914, 1909, 1865, 1245, 952, 608, 1330, 260, 385, 623, 296, 399, 118, 8, 164, 34].  
**Researching** [523]. **resedeiformis** [1060]. **Reserve** [671, 1234, 390, 1175, 1581, 1541, 1804, 1478, 1656, 1701]. **Reserves** [816, 86].  
**Reservoirs** [1344]. **Reshape** [833]. **Residence** [2188]. **Residency** [489].  
**Resident** [1810, 119]. **Resilience** [1878, 1566, 1531, 881, 1879, 965, 893, 719, 1920, 1243, 1755, 2209, 1870, 1731, 145]. **Resiliency** [888]. **Resilient** [314].  
**Resistance** [1878, 219, 227]. **Resistant** [1927]. **Resolution** [997, 654, 956, 886, 1165, 1925, 1069, 1742, 895, 825, 2127, 1673, 2088, 2171, 1235, 1079, 321, 1424, 1769, 849]. **Resolving** [1537, 73]. **Resonance** [1161, 1103, 321]. **Resorption** [1135]. **Resource** [1570, 439, 843, 993, 171, 1360, 633, 778, 1215, 664, 1673, 544, 274, 2081, 1769, 101]. **Resources** [1833, 322, 391, 1984, 806]. **Respiration** [1241, 1686, 445, 1341, 836, 757, 751, 1465, 504, 115, 78]. **Respond** [1337, 1247, 16]. **Response** [1565, 1816, 1176, 704, 426, 2106, 1861, 982, 289, 1090, 1762, 527, 1340, 1987, 881, 1546, 332, 923, 629, 2011, 461, 335, 488, 1483, 1310, 1492, 622, 808, 1194, 1550, 722, 2015, 1947, 1134, 1712, 1049, 1189, 1086, 2173, 284, 366, 302, 1261, 612, 740, 709, 432, 1227, 1280, 1318, 2053, 1162, 154, 139, 156]. **Responses** [1417, 1980, 198, 850, 1046, 314, 1782, 1140, 706, 987, 537, 1978, 1336, 752, 605, 927, 1087, 1955, 1041, 963, 265, 205, 1023, 1117, 311, 254, 3, 94, 105, 122].  
**restock** [98]. **Restocking** [340]. **Restoration** [340, 792, 1091, 733, 1397, 2121, 1547, 589, 1975, 462, 1520, 816, 1306, 1007, 177, 267, 1471, 142].  
**Restore** [2004, 1539]. **Restored** [277]. **Restoring** [864]. **Restratification** [1140]. **Restructuring** [1071]. **Results** [463, 1978, 778, 1862, 754, 1060, 1338, 62]. **Resuspension** [432]. **Retaining** [1484]. **Retaria** [1318]. **Retention** [1346, 1136, 1092]. **Rethinking** [275].  
**Retinoid** [1834]. **Retrofitting** [1921]. **Reveal** [373, 1695, 1637, 921, 343, 1201, 607, 1593, 2088, 1989, 761]. **Revealed** [1228, 1360, 1925, 869, 2023, 2005, 465, 998, 849, 90, 80, 46, 58]. **Revealing** [63]. **Reveals** [737, 731, 1312, 1311, 899, 1997, 277, 884, 603, 1750, 2136, 2181, 2139, 1202, 1526, 1811, 2036, 1320, 455, 1950, 1041, 783, 294, 2125, 124, 83].  
**Reverse** [1975]. **Review** [1173, 1703, 753, 1693, 290, 351, 411, 844, 1616, 2069, 497, 1507, 1104, 541, 300, 1920, 355, 1301, 1213, 2029, 1292, 1443, 1109, 597, 1381, 911, 1996, 1474, 1702, 1223, 1739, 1025, 1602, 2124, 1926, 1835, 153, 172, 1871]. **reviewing** [11]. **Revised** [1315]. **Revisiting** [1154, 1027]. **Rhincodon** [910]. **rhincodonicus** [910]. **Rhizopsammia** [1322]. **Rhizosphere** [1102].  
**Rhodoliths** [1434]. **Rhodophyta** [787]. **Rhodophyte** [1148].  
**Rhodymeniaceae** [2115]. **Rhodymeniales** [2115]. **Ría** [2048]. **Rica** [1016, 1378, 1594, 644, 189]. **Rich** [1360, 1177, 1237]. **Richness** [1476, 631, 1934, 404]. **Rico** [1234]. **Ridge** [2026, 42, 83, 882, 2060].  
**Ridge-to-Reef** [2026]. **Ridges** [1006]. **Ridley** [802, 838]. **Rift** [2060]. **Right** [339, 1099]. **Rigs** [1740]. **Rijpfjorden** [1649]. **Rim** [383]. **Ring** [1860].

**Ringnet** [680]. **Rio** [1753, 1718]. **Rip** [1114]. **Rip-Channeled** [1114]. **Rise** [1472, 1971, 949, 327, 2077, 1086, 1711, 1766, 1718]. **Rising** [413]. **Risk** [466, 703, 1296, 671, 1372, 1670, 628, 2055, 1765, 858, 1068, 2072, 2063, 2193, 1969, 408, 2020, 1502, 299, 148]. **Risks** [1626, 1575, 1953, 1932, 2065]. **River** [1181, 474, 1274, 184, 2192, 1682, 764, 1354, 1067, 1735, 1233, 1031, 212, 2105, 168, 1097, 481, 518, 1274, 1682, 743, 568, 2210]. **River-Dominated** [1233]. **river-influenced** [168]. **Riverine** [201, 1637, 1274, 578, 1604, 1303]. **Rivers** [536, 2136, 530, 9]. **RNA** [1253, 2084]. **Roadmap** [547]. **Robotic** [1424]. **Robust** [1259, 386, 228, 2002]. **robustus** [1260]. **Rocas** [117]. **Rock** [1219, 1921]. **Rockall** [1537]. **rockfish** [148]. **Rocky** [2062]. **ROFI** [722]. **Role** [727, 1225, 439, 490, 1312, 1101, 1652, 1676, 592, 1221, 1852, 497, 2138, 885, 334, 1240, 1186, 1365, 328, 1116, 258, 572, 1689, 1285, 746, 1969, 1605, 2206, 758, 1929, 566, 1702, 1604, 69]. **Roles** [1779, 1863]. **Romagna** [244]. **Roncador** [1545]. **Roques** [2153]. **rosenbergii** [1789]. **Rosh** [1123]. **Ross** [1163]. **rostriformis** [1544]. **Rotor** [478, 1247]. **Round** [884]. **Route** [912, 364]. **Routes** [1170]. **Routine** [368]. **ROV** [1959, 1402, 1641, 1869]. **rpoC1** [306]. **rRNA** [349]. **RUBISCO** [66, 705]. **rubrum** [897]. **Rule** [751, 252]. **Rules** [2083]. **Runoff** [474]. **Rural** [1651]. **Russian** [1003, 1501, 1197].

**S** [1259]. **S.** [594, 454]. **S.O.S.** [710]. **S2S** [1857]. **Saanich** [1495, 469, 1600]. **Saba** [1460]. **Sabella** [2084]. **Sablefish** [1669]. **Saccharina** [1349, 1958]. **Saco** [2048]. **Safe** [1120]. **Saga** [1762, 913, 1398]. **Saharan** [372, 427, 488, 106, 754, 609, 482, 549, 534, 943]. **saida** [1647]. **Sail** [2050]. **Sail-Powered** [2050]. **Saildrone** [1913]. **salar** [74]. **Salinities** [1107]. **Salinity** [1734, 1015, 1299, 1492, 1283, 1805, 183, 1052, 740, 1709, 1031, 1519, 56]. **Salinity-Growth** [1492]. **Salish** [1468]. **Salmo** [74]. **Salmon** [1456, 1349, 1299, 563, 74, 270, 151]. **Salmon-Driven** [1349]. **salmonicida** [332]. **Salp** [490]. **Salps** [1312, 43]. **Salt** [1686, 324, 1086, 1433, 670]. **Salvador** [1342]. **Same** [672]. **SAMI** [928]. **Samoa** [924]. **Sample** [405, 569, 1279, 1080]. **Sampled** [1329]. **Samples** [181, 1449]. **Sampling** [569, 1571, 169, 936, 1645, 1600, 1424, 1880, 1636, 849]. **San** [1545, 16, 2000]. **Sanctuaries** [1120, 1964]. **Sanctuary** [659, 1105, 1765, 1083, 2135]. **Sandbar** [1414, 1690]. **Sandeel** [1667, 1538]. **Sandeels** [1270]. **Sandy** [1236, 1429, 252]. **Santa** [1545, 828, 1583]. **sapidus** [1082]. **Sardine** [1373]. **Sardinella** [1373]. **Satellite** [2166, 1675, 802, 1094, 618, 934, 1949, 1362, 1192, 764, 862, 681, 533, 2052, 723, 1709, 1603, 1825, 616]. **Satellite-Based** [1825]. **Satellite-Derived** [862]. **Satellite-Driven** [2052]. **Satellites** [279]. **Saturation** [1637, 1404, 1440, 875]. **Saudi** [85]. **Scale** [2153, 268, 1342, 1414, 1695, 2022, 1876, 1840, 479, 1487, 845, 1181, 1151, 1639, 2121, 1490, 1546, 1981, 1498, 885, 629, 1922, 1595, 1069, 983, 835, 273, 2196, 954, 1569, 1725, 1913, 2178, 1698, 1332, 1955, 368, 653, 672, 1520, 1815, 677, 895, 2039, 345, 557, 1231, 1026, 2062, 1702, 177, 871, 318, 975, 1858, 784,

709, 1604, 977, 244, 761, 1043, 1636, 1624, 63, 82, 92, 128, 121, 132]. **Scales** [1764, 1192, 1483, 1336, 410, 1380, 1106, 159]. **Scaling** [1716, 479, 1547, 229, 751]. **Scallop** [2093]. **Scalloped** [2181, 2139, 1252]. **Scallops** [1456, 483]. **Scan** [523]. **Scanning** [2191]. **Scats** [1312]. **Scattering** [1190, 1830, 822, 824]. **Scenario** [1514]. **Scenarios** [2131, 1370, 1843, 2085, 1355]. **School** [755, 1862, 1855]. **Schooling** [1185]. **Science** [1590, 377, 524, 1661, 1249, 1764, 1993, 305, 1981, 1705, 1480, 1889, 835, 969, 1345, 2003, 206, 634, 195, 1577, 370, 1802, 1870, 2031, 1320, 178, 1815, 1055, 1401, 638, 1932, 1474, 225, 2020, 1691, 1521, 1910, 1702, 175, 64, 163, 144, 111]. **Science-Based** [835, 1815]. **Science-Policy** [195, 1055]. **sciences** [61]. **Scientific** [127, 2106, 1861, 753, 547, 1856, 1821, 1718, 2064, 339, 721, 1824, 1402, 948, 38]. **Scientist** [1154, 34]. **Scientists** [430]. **scintillans** [1305, 1808]. **Scleractinia** [79, 1445]. **Scleractinian** [594, 1053, 1652]. **Sclerochronology** [378]. **Scophthalmus** [2203, 2100]. **Scoresby** [1877]. **Scotia** [1994]. **scoticum** [1389]. **scoticum-Like** [1389]. **Scotland** [1548, 1667, 1538, 344]. **Scour** [401]. **Scratching** [900]. **Screening** [2095, 271]. **Scrobicularia** [1074]. **Scrubber** [1070]. **SDMs** [911]. **SE** [423, 1169]. **Sea** [268, 727, 1342, 832, 279, 1592, 423, 690, 828, 1694, 900, 2004, 713, 1319, 777, 847, 1762, 580, 2046, 1884, 1518, 1181, 826, 473, 1895, 320, 1442, 802, 595, 283, 1179, 1021, 2182, 1015, 1244, 1070, 657, 1472, 1737, 1359, 1404, 1732, 1006, 1640, 240, 1583, 1927, 1420, 200, 538, 1267, 858, 1362, 1389, 607, 1837, 1008, 869, 715, 1530, 327, 884, 1273, 2005, 460, 771, 2112, 1130, 1631, 1944, 2208, 1548, 1213, 2143, 839, 2042, 1192, 2151, 1646, 1853, 820, 1047, 1532, 910, 446, 1475, 1516, 980, 1126, 984, 1885, 508, 2077, 672, 697, 1048]. **Sea** [408, 683, 1902, 1501, 1851, 2157, 382, 1479, 840, 1200, 1744, 1387, 665, 1239, 1576, 749, 442, 2040, 1189, 1994, 1060, 2199, 1086, 566, 876, 306, 1711, 294, 1772, 1766, 682, 183, 510, 1687, 1647, 1522, 1699, 301, 1886, 750, 1052, 693, 1619, 413, 432, 1926, 948, 1869, 1275, 1029, 2198, 333, 489, 1424, 399, 115, 97, 41, 26, 138, 86, 76, 136, 19, 68, 83, 472, 1135, 2166, 1100, 1005, 423, 649, 986, 1314, 730, 2140, 1190, 564, 570, 913, 731, 582, 1163, 581, 618, 2111, 2188, 1165, 2182, 1398, 1386, 1229, 1472, 1468, 1028]. **Sea** [641, 2017, 1782, 1104, 1228, 628, 830, 1733, 2170, 287, 720, 1274, 188, 873, 1003, 706, 372, 765, 1255, 932, 1813, 427, 1946, 2212, 1957, 347, 656, 128, 30, 624, 137, 2064, 295, 1373, 1429, 572, 1689, 1436, 488, 421, 818, 1230, 1413, 1292, 821, 897, 1270, 634, 156, 494, 1873, 133, 823, 1370, 1514, 1361, 1293, 1659, 1156, 1811, 1470, 1317, 602, 72, 1781, 25, 1440, 2045, 936, 1218, 1197, 329, 717, 898, 2186, 85, 1239, 1195, 749, 685, 2006, 1621, 297, 829, 1026, 437, 837, 2062, 2189, 1258, 2123, 1938, 1132, 337, 1838, 2032, 77]. **Sea** [482, 549, 2085, 534, 710, 2078, 1586, 1454, 5, 514, 645, 59, 2125, 1836, 1519, 56, 1162]. **Sea-going** [2199]. **Sea-Ice** [1006]. **Sea-Level** [327, 2077, 1086, 1711]. **Sea-Surface** [423, 320, 2042, 1479, 876]. **Sea/Mertz** [1195]. **Seabass** [1281, 28]. **Seabed** [548, 2067, 973, 1397, 908, 1411]. **Seabird** [1248, 884, 119].



**Seabirds** [847, 641, 1660, 465, 1169]. **Seabream** [309, 808]. **Seabreams** [309]. **Seafloor** [1565, 181, 1463, 406, 1449, 2070, 1062, 1749]. **SeaFlower** [1541, 1804, 1478, 1656, 1581]. **Seafood** [673, 1620, 149, 1170, 611]. **Seagrass** [617, 708, 1392, 255, 308, 1102, 505, 1121, 1842, 830, 1733, 699, 941, 852, 1920, 878, 635, 718, 440, 1520, 1588, 1328, 245, 546, 40, 135]. **Seagrasses** [1005, 1783, 26, 110, 62]. **Seahorse** [256]. **Seal** [1059, 1133, 344]. **Seamount** [2178, 1744, 825]. **Seamounts** [517, 1531, 506, 83, 2165, 2213]. **Search** [1767, 1420, 19]. **Seas** [394, 1487, 1351, 1922, 1439, 500, 2123, 1223, 506, 2187, 221, 261, 1182, 2131, 1537, 1047, 249, 2030, 838, 1744, 2013, 1723, 103, 2203, 361, 1147]. **Seascape** [1598, 540]. **Seascapes** [930]. **Season** [1359, 188, 1894, 1774, 587]. **Seasonal** [1642, 1125, 528, 613, 1776, 1680, 1567, 1371, 731, 678, 1784, 257, 1232, 1609, 2182, 1628, 1830, 1208, 1068, 357, 705, 1354, 827, 508, 1568, 2058, 876, 12, 1892, 1979, 1206, 35, 101, 867]. **Seasonal-to-Decadal** [1568]. **Seasonality** [582, 1534, 1794, 1155, 1662, 81]. **Seasonally** [469, 1600]. **SEASTAR** [1922]. **Seattle** [1657]. **Seawalls** [1484]. **Seawater** [991, 1329, 1078, 1226, 420, 744, 684, 1530, 1823, 1550, 447, 653, 1141, 319, 1042, 959, 1027, 503, 1692, 341, 106]. **Seaweed** [1575, 1540, 592, 188, 1227, 2081]. **Seaweeds** [284, 894, 1227, 1149]. **Secca** [2148]. **Secchi** [1428]. **Secondary** [1244]. **Secret** [1406]. **Secretion** [332]. **Section** [1917, 855]. **Sector** [513, 93]. **Securing** [1639]. **Security** [975].

**Sediment** [1565, 405, 2140, 1219, 243, 636, 1405, 950, 1569, 791, 428, 1222, 1588, 1589, 891, 723, 1449, 1777, 1086, 1711, 990, 302, 432, 1338, 909, 129, 159].

**Sediment-Associated** [1565, 891]. **Sediment-Water** [1222]. **Sedimentary** [1450, 2192, 294, 600]. **Sedimentation** [739, 2015]. **Sedimented** [235].

**Sediments** [2092, 558, 536, 1236, 1090, 1181, 907, 320, 1244, 565, 1161, 1103, 1733, 1927, 1030, 1793, 1344, 1829, 627, 520, 820, 661, 1378, 1048, 1403, 413, 1233, 2065, 130, 42]. **See** [646]. **Seeds** [1476]. **Seep** [832, 1583, 477, 2163, 1511, 2171, 130, 42]. **Seeps** [907, 275]. **Seine** [805, 237, 680, 2105, 1682, 1067, 1619]. **Seismic** [2110, 667]. **Selected** [166, 22]. **Selection** [1191, 375, 942, 266, 682, 611, 674]. **Selective** [119]. **Selectively** [1033]. **Selectivity** [1844, 725]. **Self** [1523]. **Self-Consistent** [1523]. **Semi** [570, 1987, 1971, 2123, 65, 23]. **Semi-Analytic** [1987]. **Semi-Analytic/Inversion** [1987]. **Semi-Automated** [1971]. **Semi-Enclosed** [2123, 570, 65]. **semi-volatile** [23]. **Senescence** [311]. **Sensed** [1908, 1052]. **Sensing** [815, 708, 1481, 242, 1410, 733, 1985, 1547, 1129, 860, 852, 258, 533, 736, 1077, 1983, 1338, 1603, 762, 616, 1376, 94]. **Sensitive** [1165]. **Sensitivity** [2166, 852, 1292, 1047, 877, 2002, 1952]. **Sensor** [991, 886, 581, 1578, 771, 2127]. **Sensors** [389, 919, 1294, 2061, 2116, 526]. **Sensory** [842, 1812]. **Sentinel** [748, 695, 2061]. **Sentinel-2** [2061]. **Sentinel2** [629]. **Sentinels** [847]. **Separation** [1683]. **Seq** [1053]. **Sequence** [688]. **Sequences** [910, 306]. **Sequencing** [349, 1685, 599, 2143, 1053, 10]. **Sequential** [1989].

**Sequestration** [505, 324, 929]. **Seriatopora** [647]. **Series** [1859, 2058, 1777, 1989, 463, 72]. **Serpulid** [1583]. **Serrana** [1804]. **Serranidae** [1930]. **Service** [1570, 1307, 1700, 1306, 1874, 1651, 1290, 1489, 110]. **Services** [1570, 1626, 2126, 2089, 255, 197, 209, 1646, 253, 1875, 1914, 234, 1905, 1728, 1355, 1665, 31, 21]. **Sessile** [1348]. **Set** [1900, 808]. **Sets** [755]. **Setting** [1703, 166, 1641]. **Settings** [749, 1539]. **Settlement** [2093, 828, 795, 760, 996, 1357]. **Severe** [1876, 1243, 945, 2022]. **Severely** [454]. **Severity** [866, 1099]. **Sex** [1191, 2139, 216, 872, 1043, 41]. **Sex-Specific** [216, 872]. **Sexual** [1191, 671, 2176, 1375]. **Sexually** [1043]. **Seychelles** [589]. **Shade** [1351]. **Shading** [674]. **Shallow** [448, 663, 2148, 594, 2005, 1375, 930, 1328, 879, 669, 2062, 112, 122, 63, 39, 104]. **Shallow-ocean** [112]. **Shallow-Reef** [1375]. **Shallow-Water** [930, 104]. **Shallower** [2126]. **Shallows** [1773]. **Shape** [742, 218, 1617, 996]. **shaped** [30]. **Shapes** [1119, 2062]. **Shaping** [1343, 1702]. **Shared** [1728]. **Shark** [1414, 1760, 956, 202, 1094, 1555, 2142, 495, 1480, 1505, 1385, 246, 2139, 910, 1593, 1521, 1603, 26]. **Sharks** [1695, 1657, 1286, 2010, 2181, 1202, 92, 99]. **Shear** [1328]. **Shearwaters** [1308, 1104, 1562]. **Shed** [398, 2058]. **Sheepshead** [1017]. **Sheet** [1606]. **Sheet-Ocean** [1606]. **Shelf** [261, 1987, 1601, 1234, 1515, 1922, 1325, 2005, 836, 1092, 2054, 317, 1938, 543, 432, 1923, 102, 1272, 521, 320, 334, 1860, 2023, 768, 453, 1152, 2099, 1050, 1687, 1763, 794, 1402]. **Shell** [1219, 1284, 671, 1302, 1832, 1300, 282, 1509]. **Shellfish** [1342, 865, 629, 1412, 1266, 1874]. **Shells** [2114]. **Shelving** [1921]. **Shetland** [1090]. **Shewanella** [78]. **shibae** [1205]. **Shift** [1473, 1574, 1593, 1872, 43]. **Shifted** [979]. **Shifting** [1258, 2124]. **Shifts** [1678, 1540, 448, 663, 814, 372, 1282, 2132, 1045, 1419, 39]. **Shihwa** [1001]. **Ship** [1845, 2007, 1410, 1959, 1784, 1070, 2069, 2110, 1660, 1965, 2055, 2193, 1950, 1910, 1899, 1910]. **Ship-Air-Sea-Interface** [1070]. **Ship-Based** [1910, 1899]. **Ship-Tethered** [1410]. **SHiPCC** [2199]. **Shipping** [1953, 1025]. **Ships** [1014, 2177, 1965, 2055, 656, 2171]. **Shipworm** [688]. **Shipwreck** [1337, 1516, 299]. **Shipwrecks** [241]. **Shoot** [1842]. **Shore** [1009, 1114, 2033, 739, 2015, 1843]. **Shorelines** [252]. **Short** [1980, 933, 940, 2103, 842, 661, 929, 1589, 451, 1281, 1419, 1162]. **Short-Term** [1980, 940, 661, 451, 1281, 1419, 1162]. **Shortcomings** [465]. **Should** [305, 367, 395, 506]. **Show** [1951, 652]. **Showing** [1847]. **Shows** [1102]. **Shrimp** [983, 2150, 1288]. **Shunt** [1365]. **Si** [863, 887]. **Siberia** [184]. **sic** [162]. **Sichang** [1774]. **Side** [319]. **Side-Reaction** [319]. **Siderastrea** [1081]. **siderea** [1081]. **Siderophore** [1049]. **Siderophores** [992, 374]. **Siege** [949]. **Sieve** [1582]. **Sight** [1029]. **Sighted** [725]. **Sightings** [1657]. **Signal** [1078]. **Signaling** [1240, 1834]. **Signals** [1534]. **Signature** [1360, 756]. **Signatures** [194]. **significance** [94]. **Significant** [921, 1186, 1469]. **Significantly** [510]. **Signs** [890, 1931, 2181]. **Silent** [1975]. **Silica** [292, 1054, 1033, 694]. **Silicate** [991]. **Silicification** [1056, 1525]. **Silicifiers** [953, 1525]. **Silicon** [519, 2114, 770, 707]. **Silurana** [1997]. **Silverside** [1017].

**Similar** [1978, 697, 311, 761]. **Similarities** [1326]. **Simmered** [1872].  
**Simple** [473]. **Simplified** [1486, 1574]. **Simplifying** [643]. **Simulated**  
[1529, 441, 932, 1310, 2040, 1141, 762]. **Simulating**  
[552, 1251, 2006, 166, 2125]. **Simulation** [487, 1551]. **Simulations**  
[2067, 1185, 2154, 2111, 522, 1370, 1514, 612]. **Simultaneous**  
[1191, 1226, 1828, 1849, 2145]. **Since** [1947]. **Single**  
[1785, 1088, 1226, 1341, 1148, 1041, 1053, 456, 1560, 46, 58]. **Single-Cell**  
[1088, 1041, 456]. **Single-Molecule** [1053]. **Single-Osculum** [1341]. **Sink**  
[768]. **Sinking** [258, 1071, 644]. **Sinks** [570, 334]. **SiO** [2114]. **Sirsoe**  
[1942, 2214]. **Sister** [1301]. **Site**  
[845, 208, 463, 1782, 1159, 1202, 1048, 2163, 682]. **Site-Specific** [208]. **Sites**  
[1794, 697, 1471]. **Situ**  
[997, 991, 812, 745, 1061, 1052, 396, 704, 2095, 1884, 1551, 1571, 1530, 464,  
241, 597, 1361, 2116, 577, 1983, 762, 1839, 763, 1636, 56]. **Situation** [299].  
**Sixgill** [1657]. **Size**  
[1800, 396, 426, 242, 618, 2066, 1139, 403, 1768, 1725, 1851, 925, 23, 1289, 68].  
**Size-dependence** [23]. **Size-Dependent** [1289]. **Size-Flux** [2066].  
**Size-Partitioned** [242]. **Size-Spectrum** [403]. **Sized** [186]. **Skeletal**  
[1772, 1380]. **Skeleton** [1101, 1177]. **Skew** [232]. **skews** [41]. **Skill** [693].  
**SKIM** [1675]. **Skin** [657, 711]. **Skipjack** [805]. **Slicks** [2121]. **Slippersnail**  
[1243]. **Slopes** [448, 663]. **Slow** [266]. **Slowdowns** [1810]. **Slower** [1969, 66].  
**Slowing** [922]. **Slowing-Down** [922]. **Small**  
[1840, 2126, 2025, 586, 1366, 1151, 1639, 365, 323, 1546, 1981, 1922, 322, 1595,  
983, 835, 1341, 273, 2196, 954, 465, 774, 666, 1955, 557, 1247, 1231, 556, 2062,  
1702, 966, 318, 975, 1858, 784, 1624, 163, 121, 672]. **Small-Scale**  
[1840, 1151, 1639, 1546, 1981, 1922, 1595, 983, 835, 273, 2196, 954, 1955, 557,  
1231, 2062, 1702, 318, 975, 1858, 1624, 121, 672]. **Smart** [1021, 2194, 1889].  
**SML** [337]. **Smoking** [785]. **Snail** [280]. **Snails** [882]. **Snakes** [1330].  
**Snapper** [2117, 1139, 1357, 1124, 1977, 872]. **Snappers** [2009]. **Snapshot**  
[1164]. **Snow** [1006]. **Snow-Ice** [1006]. **SNPs** [454]. **Social**  
[340, 1754, 1799, 2057, 1546, 1345, 1646, 1755, 2035]. **Social-Cultural** [1646].  
**Social-Ecological** [340, 1546, 2035]. **Societal**  
[2106, 1861, 1859, 1993, 1917, 1821, 206, 1605, 1824]. **Societies** [539].  
**Society** [1249, 370]. **Socio** [2159, 2024, 468, 1658]. **Socio-Ecological**  
[2159, 468]. **Socio-Ecology** [1658]. **Socio-Economic** [2024].  
**Socioeconomics** [753]. **SOCONET** [1866]. **Soft** [1129, 1569, 1279, 990].  
**Soft-Sediment** [990]. **Software** [855]. **Soil** [1496]. **Soil-Freshwater-Ocean**  
[1496]. **solemdali** [1156]. **Solenogastres** [900]. **Solid** [2095, 1294, 1466].  
**Solid-Phase** [2095]. **Solodamu** [136]. **Solute** [1344]. **Solutes** [1403].  
**Solution** [1211, 2017, 773]. **Solutions** [2158, 1268, 655, 662, 312, 1145, 13].  
**Solutions-Based** [2158]. **Somali** [2167]. **Somalia** [876]. **Somatic** [236].  
**Some** [950, 1402]. **Something** [1871]. **Somniousus** [1593]. **Sonar** [785].  
**Sonification** [1059]. **Sonora** [130]. **Sooty** [884]. **SOTS** [1989, 2058]. **Sound**  
[1830, 822, 55, 709, 725, 175, 667]. **Sound-Scattering** [822]. **Sounds** [1813].

**Soundscapes** [1964, 1813]. **Source** [2177, 1729, 855, 656, 1795, 2174, 193, 1466]. **Sourced** [1798]. **Sources** [570, 1078, 1676, 1348, 334, 1357, 288, 400, 2053, 2065, 131, 165]. **Sourcing** [673, 1620]. **South** [1329, 516, 1430, 390, 1159, 2033, 825, 1235, 1079, 1706, 1703, 1020, 728, 2048, 2140, 365, 1458, 2179, 2103, 1389, 369, 1429, 2136, 2181, 862, 324, 493, 981, 467, 1076, 2073, 664, 1454]. **South-East** [1706]. **South-Eastern** [1429]. **South-Western** [2140, 369]. **Southeast** [1628, 1732, 1524, 975, 1254]. **Southeastern** [1373, 329, 1977, 2172]. **Southern** [457, 1810, 417, 1994, 1989, 1798, 43, 2144, 396, 1827, 2089, 613, 1112, 230, 1878, 513, 532, 1852, 987, 1286, 1847, 1696, 1846, 512, 680, 770, 707, 1898, 1990, 1040, 2163, 1394, 1719, 1189, 2058, 647, 1886, 526, 1635, 1735, 1761, 1544, 489, 1995, 296]. **Southernmost** [1549]. **Southwest** [882, 1234, 1491, 631]. **Southwestern** [2000, 1541, 55, 1506, 1187, 2036]. **Soy** [831]. **sp** [737, 458, 1012, 270, 325, 1156, 757, 1441]. **Space** [845, 1112, 1219, 1722, 1661, 1639, 629, 169, 579, 2017]. **Spain** [1576]. **spallanzanii** [2084]. **Sparus** [808]. **Spatial** [268, 642, 1331, 1166, 1567, 1371, 1878, 1566, 641, 1660, 1585, 899, 54, 147, 1114, 550, 2113, 692, 246, 2192, 839, 1614, 1634, 1336, 689, 232, 1047, 681, 697, 677, 345, 1744, 1576, 1719, 1324, 2102, 1050, 77, 1622, 489, 359, 1353, 221, 63, 238]. **Spatially** [1163, 947, 72]. **Spatially-Explicit** [947]. **Spatio** [224, 1467, 736, 739, 2052, 967, 964, 1613]. **Spatio-Temporal** [224, 1467, 736, 739, 2052, 967, 964, 1613]. **Spatiotemporal** [691, 2137, 1735]. **Spawn** [2121]. **Spawning** [845, 289, 1538]. **Specialist** [1684, 1473]. **Speciation** [463, 422, 278, 301, 670, 137]. **Species** [2141, 1406, 1064, 1478, 649, 613, 167, 264, 845, 1150, 208, 1980, 1178, 263, 580, 1540, 1555, 807, 1287, 307, 1384, 812, 1830, 169, 1267, 852, 461, 866, 987, 1844, 364, 1943, 1978, 1116, 1930, 237, 362, 630, 131, 1204, 1136, 1246, 1160, 1156, 1439, 428, 1396, 410, 508, 672, 1200, 834, 972, 911, 1934, 1666, 2006, 1049, 1324, 256, 1942, 2214, 177, 1115, 853, 1374, 1952, 1635, 787, 2078, 385, 1254, 1623, 1253, 1471, 2187, 1043, 1769, 1035, 138, 172, 108, 10, 7, 120, 28, 132]. **Species-Specific** [987, 131]. **Specific** [208, 987, 603, 788, 205, 2019, 216, 872, 131, 84]. **Specific-Predation** [2019]. **Specimen** [1080]. **Specimens** [220]. **Spectra** [656, 436]. **Spectral** [198, 441, 748, 695, 1077, 165]. **Spectrally** [855]. **Spectrofluorimetric** [1386]. **Spectrometry** [411, 447, 895, 321]. **Spectrophoto** [1386]. **Spectrophoto-** [1386]. **Spectrophotometer** [1361]. **Spectrophotometric** [1108]. **Spectroscopy** [1161, 1103, 1936]. **Spectrum** [426, 403]. **Speed** [1842]. **Speeds** [1969]. **Spell** [945]. **Sperm** [1845, 1534, 369, 1828]. **Spermonde** [467, 636, 760, 637, 1011, 963, 967, 966, 964, 784]. **Sphaerocladina** [889]. **Sphaerodoridae** [80]. **Sphere** [275]. **Sphyrna** [495, 2181]. **Spiked** [1030]. **Spill** [738, 1516, 2115, 1408, 55]. **Spillover** [816]. **Spinner** [454]. **Spiny** [1448, 989, 51]. **spiny-rayed** [51]. **Spirolide** [1422]. **Spitsbergen** [1668, 402]. **Spoil** [1062]. **Sponge** [777, 1012, 1234, 398, 817, 1631, 464, 889, 1187, 1744, 1060, 1441, 801, 115, 52].

**Sponges** [863, 2095, 1837, 1763]. **Spongivory** [1187]. **Spontaneous** [1958]. **Sporadic** [1748]. **Sporochartines** [889]. **Spots** [1006, 2114]. **Spotted** [454]. **spp** [2119, 87, 1462, 855, 639, 781, 1552, 2078, 958, 2135]. **Spread** [1072, 1868]. **Spreading** [1319]. **Spring** [457, 1946, 2212, 1130, 897, 530, 571, 1710, 1258, 231, 1982, 1162]. **Spring-Bloom** [231]. **Springs** [622]. **Springtime** [2071, 382]. **spumigena** [1805]. **SPURS** [183]. **Squeeze** [1921]. **Sri** [983]. **ssDNA** [931]. **ssp** [308]. **SSR** [2183]. **SST** [345]. **St** [1445]. **St.** [725]. **Stability** [985, 1042]. **Stable** [1088, 1308, 1229, 2079, 1269, 518, 1610, 1099, 2010, 1593, 453, 974, 1454, 62, 107]. **Stacked** [1471]. **Stacked-Species** [1471]. **STAF** [1785]. **Stage** [621]. **Stages** [2132, 1427, 1082]. **Staghorn** [2176]. **Stainable** [1137]. **Staining** [1257]. **Stakeholder** [1756, 295, 818, 166, 468]. **Stakeholder-Driven** [1756]. **Stakeholder-Informed** [295]. **Stakeholders** [1605, 431, 166]. **Stand** [1307]. **Standard** [1717, 1952, 1466]. **Standards** [2169, 1743, 175]. **Star** [1008]. **Starvation** [1747, 1712]. **Stasis** [2091]. **State** [997, 1637, 1656, 1096, 1404, 1453, 934, 1523, 1180, 1928, 836, 1526, 908, 1558, 1630, 1440, 437, 1497, 875]. **State-of-the-Art** [934, 1526, 1497]. **States** [1592, 2066, 1638, 1846, 1475, 435, 1426, 163, 2028, 209, 1657, 1977, 2104]. **Static** [1259]. **Station** [1216, 463, 1629, 992, 1419, 849]. **Stations** [2008]. **Statistical** [327, 1692, 1619, 175]. **Statistics** [1315]. **Status** [2117, 291, 394, 377, 524, 449, 414, 371, 1016, 599, 1949, 1721, 1470, 395, 276, 2157, 1713, 1522, 1699, 645, 1688, 53, 70]. **Steady** [1541]. **Steel** [1127]. **Stellar** [473]. **Stelletta** [777]. **Stenella** [1478, 454]. **Stepping** [1528]. **Steps** [1812, 500]. **Steroid** [1099]. **Stewardship** [835]. **Stick** [1466]. **Stickleback** [2184, 917]. **Still** [416, 11]. **Stimulated** [1406, 757]. **Stimulation** [926, 412]. **Stinging** [730]. **Stocks** [352, 1948, 734, 1450, 1733, 1405, 324, 829]. **Stoichiometric** [459]. **Stoichiometry** [776, 1251, 1752]. **Stomach** [1593]. **Stomachless** [1608]. **Stone** [902]. **Storage** [253, 1881, 338, 245]. **Storm** [2071, 329, 535, 1086]. **Storm-Induced** [2071]. **Strain** [2036, 205, 33]. **Strain-Specific** [205]. **Strains** [1325, 607, 1220]. **Strait** [235, 791, 1565, 1125, 658, 1655, 1359, 1943, 1730, 1155, 1777, 1338]. **Strandings** [1950]. **Strategies** [843, 1203, 2003, 729, 598, 751, 721, 2203]. **Strategy** [426, 420, 384, 368, 1950, 806, 1818, 346, 2171, 1057, 141, 101]. **Stratification** [1419]. **Stratified** [897]. **Stream** [1860]. **Strengths** [363]. **Stress** [1417, 2119, 314, 1081, 706, 890, 1473, 988, 362, 622, 1087, 2016, 1041, 1328, 834, 1060, 1433, 1318, 674]. **Stress-Tolerance** [1433]. **Stressed** [711]. **Stresses** [1908]. **Stressors** [1920, 752, 602, 239, 1381, 1457, 1157, 1817, 1355, 1849]. **striatus** [883]. **Strike** [1965, 2055, 2193, 1000]. **Strikes** [1845, 2007, 1950]. **stripping** [152]. **Strombidium** [1136]. **Strong** [728, 521, 1793, 1202]. **Strongylocentrotus** [1530]. **Structural** [2153, 444, 1962, 1129]. **Structure** [268, 1807, 1680, 1678, 595, 2028, 2138, 1430, 1325, 372, 738, 2033, 248, 454, 878, 1357, 910, 331, 446, 2178, 1617, 1464, 1669, 1576, 1050, 2062, 544, 2088, 476, 784, 1600, 2203, 2115, 688, 2100, 1789, 1979, 45, 82, 72]. **Structured**

[967]. **Structures** [1515, 1921, 1054, 1380]. **Structuring** [1599, 758, 317, 1773, 102]. **Students** [1862]. **Studied** [1996]. **Studies** [373, 1716, 230, 2177, 856, 1368, 1911, 1104, 1209, 1292, 597, 754, 1279, 664, 1691, 1683, 193, 361, 321, 456, 1636]. **Study** [261, 742, 1561, 1590, 181, 691, 463, 1178, 527, 826, 1437, 1790, 1450, 907, 1856, 487, 1386, 1555, 1472, 1809, 1241, 1287, 350, 1435, 348, 744, 1922, 169, 555, 2131, 902, 391, 488, 1001, 971, 1794, 1047, 1215, 2209, 1913, 1862, 981, 2031, 395, 609, 1843, 1874, 685, 1621, 1719, 1060, 437, 281, 2123, 1731, 577, 1402, 471, 1586, 1665, 1825, 1519, 102]. **Studying** [709, 399]. **Stylophora** [122, 397]. **Sub** [1850, 1597, 445, 1030, 1069, 2098, 1263, 2200, 1522, 1699, 99]. **sub-adult** [99]. **Sub-Arctic** [1263, 1597]. **Sub-Micromolar** [445]. **Sub-Optimal** [2200]. **Sub-population** [1069]. **Sub-Populations** [2098]. **Sub-Surface** [1522, 1699]. **Subantarctic** [1291, 2094]. **Subarctic** [1140, 719, 571, 281]. **Subcanopy** [1374]. **SubCAS** [1118]. **Subduction** [1848]. **Subject** [1363, 935]. **Subjected** [840]. **Sublittoral** [1758]. **Submarine** [1840, 1959, 497, 2076, 2027, 1576, 2040, 610]. **Submerged** [1294, 1379]. **Submersible** [928, 1118]. **Submesoscale** [1922, 531]. **Suboxia** [464]. **Suboxic** [287]. **Subpolar** [615, 875]. **Subprovinces** [1343]. **subsalsal** [1553]. **Subsea** [1320, 1666]. **Subseasonal** [1892]. **Subseasonal-to-Seasonal** [1892]. **subsidies** [109]. **Subsistence** [1647]. **Substantially** [1388]. **substrates** [16]. **Subsurface** [1150, 1736, 1824]. **Subtidal** [1406]. **Subtropical** [1438, 1529, 1642, 1176, 1543, 2048, 678, 2079, 1241, 1144, 1999, 1036, 1282, 1061, 1310, 1945, 451, 535, 1023, 183, 302, 577, 1261, 1169, 471, 150, 958, 1265, 71]. **Subunit** [2150]. **Succeed** [1439]. **Success** [264, 962, 1154, 615, 816, 996]. **Successes** [1762, 913, 1398, 1815]. **Successful** [1917, 1727, 1057]. **Successfully** [875]. **Succession** [731]. **Sudden** [1494]. **Suffering** [1256]. **sufficiency** [16]. **Suffocating** [388]. **Sugar** [1540]. **Suggest** [1828, 16]. **Suggests** [757]. **Suitability** [720, 1007, 825, 267]. **Suitable** [828, 805, 2002]. **Suite** [1063, 995, 1645]. **Sulawesi** [467, 774]. **Sulfatases** [498]. **Sulfate** [1482]. **Sulfide** [1176, 181, 62, 1361, 428, 1926]. **Sulfur** [921, 1102, 705, 520, 62, 17]. **Sulfur-Oxidizing** [1102, 705, 17]. **Sulfurization** [854]. **Sulphide** [1272]. **Summer** [728, 1668, 1992, 1655, 2028, 944, 1649, 1957, 1436, 820, 1293, 1710, 1671, 1877, 1280, 1761, 1741, 667]. **Summertime** [1256]. **Summits** [517]. **Sund** [1877]. **Sundarbans** [679]. **Sunlit** [1549]. **Super** [706, 1537]. **Super-Corals** [706]. **Superabundant** [884]. **superba** [800]. **Superfast** [1848]. **Superoxide** [334, 418, 436, 433]. **Supplemented** [1242]. **Supplies** [1356]. **Supply** [999, 1017, 1332, 94, 149]. **Support** [815, 1185, 1822, 1911, 2075, 651, 1721, 818, 2196, 2109, 1909, 1245, 1559, 588]. **Supporting** [2086, 1882, 746, 421, 1755, 871]. **Supports** [751, 2035]. **Supralittoral** [222]. **Surf** [1737]. **Surface** [423, 742, 900, 1890, 1410, 214, 716, 513, 320, 1165, 1182, 1015, 1386, 220, 657, 1113, 2075, 932, 2114, 1906, 2042, 1192, 1344, 1829, 627, 862, 823, 820, 1526, 1698, 722, 1885, 877, 329, 1479, 857, 1449, 1323, 876, 1772, 682, 2189, 183, 1522, 1699, 1052, 337, 693, 413, 1559, 1761, 1866, 943, 221, 94, 155, 77].

**Surfaces** [2093, 1294]. **Surfactant** [1319]. **Surfactants** [1387]. **Surficial** [1309]. **Surges** [232]. **Surmount** [994]. **Surprise** [2159]. **Surprisingly** [2002]. **Surveillance** [542, 1010, 1253]. **Survey** [815, 2184, 484, 631, 1630, 1084, 103, 104, 1003]. **Surveying** [2110]. **Surveys** [2195, 2023, 627, 192, 2147, 1602, 2078, 667, 136]. **Survival** [593, 483, 1017, 1388, 1669, 256, 216, 99]. **Survive** [589]. **Survivorship** [462, 76]. **Susceptibility** [1818, 1635, 158]. **Suspended** [1436, 723]. **Suspension** [1863]. **Suspension-Feeding** [1863]. **Sustainability** [2117, 1856, 885, 1116, 1055, 662, 1147]. **Sustainable** [2050, 1513, 507, 2075, 965, 1751, 2109, 806, 1401, 566, 1951, 91, 31, 149]. **Sustained** [1277, 1915, 1821, 1285, 1916, 1898, 1606, 2032]. **Sustaining** [1972, 1743, 1573]. **Svalbard** [1152, 1933, 1923, 1444, 1649, 1759, 2130]. **SW** [766, 1959, 1493, 840]. **Swarm** [632]. **Swash** [1244]. **Sweden** [197]. **Swedish** [1346]. **Swell** [280]. **Swell-Generated** [280]. **Swells** [1827]. **Swimming** [1028, 141, 1395, 74]. **switch** [101]. **SWOT** [1698, 1636]. **sxtA** [1220]. **sxtA1** [1220]. **sxtA4** [1220]. **Sydney** [1216]. **Symbiodiniaceae** [2119]. **Symbiodinium** [1081, 799, 1380, 2119, 855, 1069, 891, 435]. **Symbiont** [1119, 220, 429, 1012, 1069, 2143, 891, 1318, 84]. **Symbionts** [1102, 1041, 1117, 799, 433]. **Symbioses** [933]. **Symbiosis** [502, 1684, 398]. **Symbiotic** [397, 2168, 1425, 1918, 1750, 1475, 1323, 179, 435, 1838]. **Sympatric** [2108, 2009]. **Synechococcus** [737, 393, 15, 849]. **Synergies** [1915, 2109, 806]. **Synergistic** [798, 695, 126, 748]. **Synergy** [1901]. **SynSenPFT** [748, 695]. **Synthesis** [1693, 1859, 858, 2129, 1558, 338, 1803, 62, 114, 46, 58]. **System** [1706, 1716, 1814, 1236, 1799, 1826, 1410, 906, 521, 1196, 1783, 1629, 1672, 332, 1882, 1551, 2011, 700, 1821, 2080, 1931, 1664, 639, 328, 1429, 1916, 1316, 1912, 1757, 344, 1579, 1781, 1881, 1576, 620, 1914, 1894, 1499, 1907, 1647, 2008, 1896, 1606, 1502, 231, 1935, 468, 1559, 1709, 2001, 93, 1100, 396, 1417, 230, 564, 860, 1961, 2193, 1611, 1708, 1960, 1893]. **Systematic** [1703, 1693, 843, 1956, 1920, 1443, 1109, 1381, 911, 1702, 1739, 1602, 1835]. **Systematics** [1930]. **Systems** [303, 223, 993, 2086, 1882, 1767, 1927, 2159, 13, 1503, 1584, 1523, 1418, 1421, 1775, 485, 1558, 2031, 936, 1902, 1247, 1572, 1899, 2035, 302, 2032, 1888, 341]. **Szczecin** [1453].

**T** [1259, 1952]. **T-iso** [1952]. **Taboos** [727]. **Tackle** [1010]. **Tactics** [729]. **Tag** [956, 715, 1027]. **Tags** [1695, 2007, 465]. **Tailings** [661, 948]. **Tailored** [1756]. **Tailoring** [1313]. **Taiwanese** [309]. **Take** [1139, 1175, 666, 816]. **Taking** [994, 2082]. **Tale** [574]. **Tales** [70]. **tamarense** [176]. **Tamarix** [475]. **tamiyavanichii** [1297]. **Tampa** [259]. **Tandem** [447, 895]. **Tank** [1387]. **Tanks** [1669]. **Tanner** [1511]. **tanneri** [1518, 1511]. **Tanzania** [902, 434, 584]. **Tapajós** [536]. **target** [11]. **Targeted** [158, 1880]. **Targeting** [1856]. **Tars** [2041]. **Tasman** [1694]. **Taxa** [1771, 2002]. **Taxon** [788]. **Taxon-Specific** [788]. **Taxonomic** [1430, 631, 402, 294, 104].

**Taxonomy** [900, 781]. **TCO** [718]. **Te** [1996]. **Teaching** [1271]. **Techniques** [2121, 1350, 1332]. **Technologies** [1985, 2156, 1209, 2190, 1757, 2044, 1983]. **Technology** [1547, 2194, 1996, 1497, 1865, 1803, 1131, 611, 64, 10]. **Technology-Critical** [1996]. **Teleconnected** [1170]. **Teleconnections** [740]. **Telemetry** [1094, 1792, 1394]. **Teleostei** [51, 309, 1930]. **Tell** [662]. **Temperate** [1236, 962, 352, 1312, 1585, 243, 1498, 1139, 364, 1344, 2137, 1794, 930, 2174, 1872, 1045, 1149, 88]. **Temperature** [1747, 426, 1988, 1319, 962, 1024, 1210, 731, 1432, 2182, 1498, 1017, 1917, 1208, 1554, 1388, 1214, 2168, 1425, 1918, 1285, 2042, 842, 957, 1251, 293, 583, 1270, 820, 622, 927, 1599, 530, 1885, 1263, 891, 751, 925, 1607, 876, 1805, 1772, 682, 183, 366, 1052, 693, 413, 1149, 47, 125, 103]. **Temperature-Abundance** [962]. **Temperature-Dependent** [731]. **Temperature-Induced** [1554, 1214]. **Temperature-Modulated** [751]. **Temperatures** [1192, 926, 1280]. **Temporal** [224, 649, 1166, 1609, 1467, 550, 1504, 1375, 689, 232, 1047, 736, 739, 697, 2052, 967, 1864, 1324, 964, 1110, 1613, 1622, 958, 1353]. **Temporary** [216]. **Ten** [698, 2113, 721]. **Tenfolded** [2105]. **TEP** [658, 1033]. **Teredinidae** [688]. **Teredo** [821, 688]. **Term** [1216, 1747, 737, 1321, 1980, 2046, 1748, 985, 1629, 525, 696, 940, 2103, 656, 1906, 232, 1202, 791, 661, 929, 1991, 2207, 1494, 1218, 1589, 451, 870, 1281, 1419, 534, 1735, 2125, 1836, 1162, 486, 122, 448, 663, 745]. **Tern** [884]. **Terrain** [2171]. **Terrestrial** [1793, 460, 203]. **Territory** [586, 1976]. **tertiolecta** [12]. **Test** [473, 581, 276, 1952]. **Testing** [426, 2121, 1809, 1865]. **Tests** [1952]. **Tethered** [1410]. **Tetraploid** [2100]. **Tetrazolium** [1686]. **Texas** [2136, 535]. **Thailand** [1366, 1371, 892, 140, 1774]. **Thalassicolla** [1750]. **Thalassiosira** [1285, 770, 707]. **Thames** [1584]. **Thaumarchaeota** [670]. **Thecate** [1297]. **Thecosomata** [1310]. **Their** [1648, 1009, 994, 449, 660, 1486, 334, 286, 1429, 631, 1220, 1084, 2052, 2186, 1996, 234, 503, 1728, 1032, 2198, 94, 4, 468, 938, 1128, 221]. **Them** [2159, 1010]. **Themisto** [1777]. **Theoretical** [1823]. **Theory** [776]. **There** [448, 663]. **Thermal** [704, 247, 1417, 289, 1158, 660, 314, 1081, 940, 706, 866, 914, 2168, 1425, 1918, 1473, 604, 976, 1380, 924, 1318, 1032, 674, 74, 108]. **Thermally** [247]. **Thermography** [914, 1931]. **thermophilum** [1069]. **thermoregulation** [141]. **Thickness** [671]. **Think** [789]. **Thinking** [2158]. **Thoughts** [965]. **Thousand** [698, 70]. **Threat** [1178]. **Threatened** [280, 255, 392, 2176, 1473, 767, 395, 938, 1128, 172]. **Threats** [1535, 1073, 1267, 363, 1714]. **Three** [888, 1478, 613, 208, 1450, 1248, 1061, 1930, 249, 1740, 1581, 1323, 600, 1353, 3, 25, 116]. **Three-Dimensional** [600]. **Threespine** [2184, 917]. **Thresholds** [1693, 308, 660, 171, 1715, 772]. **Throughout** [1185, 201]. **Throughput** [349]. **Thunnus** [1807, 1384, 310]. **thynnus** [1384, 310]. **Thyroid** [1099]. **Tidal** [733, 401, 635, 451, 1622, 1273]. **Tide** [2049, 629]. **Tide-Driven** [629]. **Tides** [249, 870, 388]. **Tidewater** [1444, 1720]. **Tiger** [1695, 1505]. **Time** [426, 1859, 1112, 463, 886, 887, 2188, 1644, 2168, 1425, 1918, 1192, 1483, 1558, 2058, 1777, 1989, 1559, 72].



**Time-Averaging** [1192]. **Time-Domain** [886]. **Time-series** [463].  
**Timescales** [1694]. **Timing** [426, 1946, 2212, 364, 1538, 827, 177]. **Timor**  
 [1858, 1951]. **Timor-Leste** [1858, 1951]. **Tisochrysis** [1065, 1952]. **Tissue**  
 [2141, 859, 475, 1560, 135]. **Tissues** [1321, 759, 1309]. **titanium** [152].  
**Titration** [744]. **Tobago** [832]. **TOF** [1080, 2122]. **Together** [1523, 2024].  
**Tokelau** [1407]. **Tolerance**  
 [2144, 1024, 1158, 550, 2168, 1425, 1918, 714, 976, 924, 1433, 74, 113, 56].  
**Tolerant** [1184]. **Tolerate** [945]. **tomography** [90]. **Tongues** [1444].  
**Tonkin** [1829]. **tonsa** [1087]. **Tool** [340, 389, 1556, 2025, 955, 1158, 1660,  
 1257, 599, 626, 767, 735, 1521, 709, 616, 53, 36]. **Toolbox** [1271, 2201].  
**Toolkit** [2184, 1792]. **Tools** [558, 753, 1262, 567, 1437, 1557, 1729, 2159, 941,  
 1634, 384, 780, 1766, 1855, 1688, 1253]. **Tooth** [559]. **Toothfish** [2183]. **Top**  
 [1187, 101]. **Top-Down** [1187]. **Topography** [1698]. **Total**  
 [639, 1436, 796, 1327, 274]. **Tourism** [251]. **Tourists** [630]. **Tower** [1528].  
**Town** [902]. **Toxic** [1491, 1325, 858, 1297, 1148, 1002]. **Toxicity**  
 [1443, 1952, 29, 12, 37]. **Toxicogenomics** [1615]. **Toxicokinetic** [190].  
**Toxicogenic** [1616, 1422]. **Toxin** [1342, 1510, 1805, 616]. **Toxin-Producing**  
 [1342]. **Toxins** [1266]. **Trace**  
 [803, 744, 1503, 1945, 1048, 319, 1761, 1447, 621, 71, 77]. **Trace-Metal-Free**  
 [319]. **Tracer** [937, 2027]. **Tracers** [1088]. **Tracing** [2003, 1038]. **Track**  
 [1216, 2166, 2170]. **Tracked** [1308, 952]. **Tracker** [766]. **Tracking**  
 [1941, 846, 847, 289, 802, 899, 1362, 715, 665, 616]. **Tracks** [1059, 1248].  
**Tract** [2141, 674]. **Trade** [1556, 473, 1459, 1715, 942, 1170]. **Trade-Off**  
 [1556]. **Trade-Offs** [1715, 942]. **Tradeoffs** [1191, 452]. **Trader** [673, 1620].  
**Trading** [1570]. **Traditional** [809, 1066, 936, 539, 2035, 38]. **Traffic**  
 [2110, 1660]. **Tragedy** [1145]. **Trait** [1228, 544, 1817, 1508]. **Trait-Based**  
 [1228, 544, 1817, 1508]. **Traits** [247, 1339, 976, 1189, 1728, 1433, 1289, 1769].  
**Trajectories** [766, 1239]. **Tramandaí** [1735]. **Trans** [1377].  
**Trans-boundary** [1377]. **Transboundary** [642]. **Transcriptional**  
 [3, 850, 1046, 1242, 705]. **Transcriptionally** [515]. **Transcriptome**  
 [373, 573, 1997, 2143, 1750, 1215, 1053, 417, 2183]. **Transcriptomic**  
 [314, 893, 2011, 1117, 1712]. **Transdisciplinary** [431]. **Transect**  
 [2192, 879, 669, 140, 444]. **Transfer** [403, 1463, 2109, 151]. **transferring**  
 [159]. **Transfers** [2119]. **Transform** [1688, 321]. **Transformation**  
 [2206, 1266, 194, 67]. **Transformations** [182, 885, 288, 561].  
**Transformative** [1679]. **Transforming** [782]. **Transgenerational** [1530].  
**Transition** [2093, 347]. **Transitional** [291, 1584, 1721, 316]. **Transitioning**  
 [273]. **Transitions** [635, 1960]. **Translocation** [2004]. **Transoceanic** [1864].  
**Transparent** [571, 1033]. **transplantation** [122]. **Transplants** [1520].  
**Transport** [1941, 1125, 1694, 1211, 1726, 1114, 1356, 460, 2097, 2054, 1403,  
 1711, 2105, 136, 19]. **Transporters** [1586]. **Transshipment** [1171]. **Trap**  
 [1777, 1338]. **Trapped** [1219]. **Traps** [791]. **Traversing** [880]. **Trawl**  
 [1630, 1831, 2006, 1621, 861, 591]. **Trawled** [1029]. **Trawlers** [2133].  
**Trawling** [973, 1531, 840, 1998]. **Treading** [1766]. **Treatment** [874, 1932].

**Tree** [1748]. **Trench** [2198]. **Trend** [240, 1768]. **Trends** [649, 734, 1748, 860, 1116, 1667, 862, 232, 539, 662, 1621, 870, 772, 1559, 1604, 416, 1407, 1688, 1836, 81]. **Triangle** [1331]. **Tributyltin** [2096]. **Trichechus** [1784]. **Trichodesmium** [1491, 958]. **Trieste** [826]. **Trigger** [311]. **triggered** [112]. **Triggers** [1589]. **Trinidad** [832]. **Trip** [2152]. **Triphosphate** [1166]. **TRIS** [1107]. **Triton** [1302]. **Troms** [468]. **Trophic** [1096, 804, 1956, 1349, 1248, 1830, 1430, 1203, 1715, 836, 1594, 2088, 1989, 652, 1454, 108]. **Trophodynamics** [955]. **Tropic** [1744]. **Tropical** [2134, 1807, 217, 704, 502, 1020, 606, 1911, 1458, 429, 1672, 1854, 864, 1515, 1999, 1595, 884, 364, 631, 454, 237, 253, 836, 493, 981, 1022, 1753, 1588, 2157, 1744, 1499, 540, 1692, 1613, 1553, 872, 9]. **tropicalis** [1997]. **Tropics** [1484]. **tropolone** [33]. **trossulus** [1758]. **Trough** [1043]. **Trout** [1646]. **Truly** [1749]. **truncatus** [725]. **Trying** [379]. **Trypticase** [831]. **Tsunami** [1816, 408, 1467]. **Tubastrea** [1322]. **Tube** [477]. **Tube-Dwelling** [477]. **Tubeworm** [173]. **Tuna** [1807, 805, 1384, 237, 680, 310, 1864]. **Tuning** [643]. **Turbid** [714, 1818]. **Turbid-Zone** [714]. **Turbidity** [1392, 629, 682]. **Turbot** [2203, 2100]. **Turf** [1540]. **Turkey** [356]. **Turks** [274]. **Turnover** [1785, 66]. **Tursiops** [689, 216, 725]. **Turtle** [1342, 1737, 1267, 890, 648, 1853, 1831, 750, 1424, 26, 134]. **TurtleCam** [1021]. **Turtles** [727, 713, 802, 1021, 2182, 1382, 1362, 715, 1477, 368, 672, 455, 838, 665, 918, 709, 1623, 489, 41]. **Twelve** [738]. **Twenty** [528, 156, 687]. **twenty-first** [156]. **Twilight** [1190]. **Two** [606, 845, 1262, 933, 882, 1597, 1267, 461, 1418, 1339, 1978, 1066, 1794, 1204, 770, 707, 530, 379, 408, 963, 574, 1195, 2058, 894, 1708, 7, 1115, 1635, 1280, 1544, 2130, 616, 1043, 2009, 102, 28, 120]. **Type** [323, 859, 681, 677, 2150, 1305, 1808, 332]. **Types** [1260, 618, 748, 695]. **Typical** [1958]. **Typology** [431]. **typus** [910].

**U.S.** [1459, 1965, 495, 1964, 1708, 750]. **ugly** [111]. **UK** [753, 1435, 1584, 149, 161]. **Ultra** [372, 998, 321, 1206]. **Ultra-High** [321]. **Ultra-Microstructures** [998]. **Ultra-Oligotrophic** [372]. **Ultra-Violet** [1206]. **Ultrastructural** [179]. **Ultraviolet** [1361]. **Ulva** [333]. **Un-quantified** [933]. **Unaccounted** [1798]. **Unaltered** [842]. **Unanswered** [2092]. **Uncertainties** [252, 273, 1514, 1447]. **Uncertainty** [466, 703, 1816, 596, 969, 177]. **Unconventional** [1191]. **Uncover** [274]. **Underlining** [221]. **Undermining** [332]. **Underpinning** [1874]. **Understand** [2177]. **Understanding** [712, 247, 617, 1358, 955, 167, 1224, 1221, 657, 2158, 765, 522, 1056, 1273, 460, 848, 1633, 234, 1892, 787]. **Understory** [1227]. **Understudied** [1771]. **Underwater** [1014, 478, 411, 1021, 1201, 2201, 1964, 1545, 1004, 1969, 2165, 2213, 601, 2171, 1839, 1880, 100]. **Underway** [886]. **undesirable** [153]. **Undetermined** [309]. **UNESCO** [1875]. **Unexpectedly** [1288]. **Unexplored** [1944, 2208]. **unicellular** [157]. **Unified** [215]. **Unifying** [379]. **Unintentional** [617]. **Union** [1287, 1835]. **Unique** [1182]. **Unit** [1407]. **United**

[2028, 1657, 1977, 209, 1638, 1426, 2104]. **University** [1855]. **Unknown** [1944, 2208]. **Unmanned** [478, 1247]. **Unoccupied** [1931, 2031]. **Unprecedented** [1678]. **Unravel** [531]. **Unraveling** [1545]. **Unravelling** [1679]. **Unregulated** [217, 2167, 1010]. **Unrelated** [1005]. **Unreported** [217, 2167, 1010]. **Unsolved** [1883]. **Unsustainable** [274]. **Untapped** [1981]. **Untargeted** [2095, 158]. **Untrawled** [2111]. **Untying** [687]. **Unusual** [972]. **Up-Welling** [1310]. **Upcoming** [485]. **Update** [251]. **Updated** [2029, 114]. **Upon** [2119, 1962]. **Upper** [582, 1019, 647, 317, 1924, 1366, 1371, 1774]. **Upscaling** [1745, 1349]. **Upstream** [2152, 1507]. **Uptake** [396, 197, 243, 457, 699, 1299, 229, 1317, 891, 2008, 1560]. **Upwelling** [1529, 396, 1417, 1393, 1678, 521, 185, 860, 1664, 705, 459, 793, 1092, 2099, 1572, 189, 577, 1110, 82, 412]. **upwelling-affected** [82]. **Upwelling-Related** [1417]. **Urban** [1651, 909]. **Urbanized** [689]. **Urchin** [1530, 1189]. **Urgently** [376]. **Uria** [994]. **Ursus** [1066]. **USA** [167, 1975, 769, 619]. **Usage** [1966, 274, 2150]. **Use** [1570, 1164, 2092, 425, 843, 181, 845, 993, 847, 1722, 2026, 1271, 1151, 1784, 1485, 1681, 169, 1721, 855, 778, 1192, 1122, 467, 1332, 1919, 539, 665, 1633, 1511, 1038, 1952, 2104, 2074, 1563, 645, 1252, 1623, 91, 172, 136]. **Used** [2041, 753, 462, 1577]. **Useful** [1855]. **User** [1756]. **Users** [1900, 1700]. **Uses** [1486, 635, 384, 739, 1824, 2024]. **Using** [1800, 1941, 1536, 2067, 828, 900, 1259, 962, 1487, 2195, 1987, 802, 1094, 618, 1971, 1809, 1806, 367, 171, 1547, 350, 2159, 1360, 1685, 1356, 1610, 947, 522, 1297, 1931, 809, 811, 839, 1377, 454, 512, 1099, 1270, 465, 1133, 1361, 1558, 998, 447, 282, 995, 1990, 789, 2061, 1053, 2174, 2122, 281, 959, 1673, 682, 193, 526, 2171, 1131, 1619, 2180, 1051, 489, 2001, 762, 1839, 1789, 1471, 616, 1979, 763, 38, 53, 95, 99, 108, 25, 145, 10]. **USS** [283]. **Utility** [1269, 1965, 976, 2187]. **Utility-per-Recruit** [2187]. **Utilization** [365, 1311]. **Utilize** [196, 1238]. **Utilizing** [864, 1584, 390]. **UV** [1788, 125, 1786, 165]. **UV-B** [125]. **UV-visible** [165]. **UVB** [537].

**V41** [330]. **Vaigat** [1801]. **Validated** [1007]. **Validation** [991, 741, 1686, 2127, 1643, 267, 1489]. **Valley** [2060]. **Valuable** [509, 36]. **Valuation** [1307, 1409, 148]. **Value** [1523, 1746, 1605, 233, 407, 1402, 142]. **Values** [1570, 1178, 2082, 1307, 1593, 453, 974, 1521, 132]. **Valuing** [1797, 197, 1408]. **Vancouver** [1260]. **Vanishing** [2124]. **vannamei** [2150]. **Vanuatu** [796]. **Variability** [2153, 548, 1642, 946, 1567, 1371, 1878, 678, 2177, 1165, 1655, 1458, 1732, 1726, 1114, 2179, 155, 765, 538, 1530, 1493, 1618, 1061, 415, 839, 1344, 1725, 862, 324, 1354, 232, 1047, 697, 1440, 625, 1719, 870, 1892, 1106, 1110, 150, 1544, 958, 54, 147, 238, 81, 12]. **Variable** [1637, 1163, 1241, 1251, 266, 254, 1580, 1395]. **Variables** [1259, 1884, 1142]. **Variation** [201, 1125, 586, 1518, 1585, 1640, 1129, 1498, 169, 866, 1180, 603, 1336, 689, 1475, 739, 967, 1864, 1735, 872, 131, 69]. **Variations** [279, 1232, 1830, 221, 1519]. **Varied** [209]. **variegatus** [1017]. **Various** [1218]. **Vary** [778, 72]. **Varying** [814]. **Vascular** [1240]. **vectensis** [350].

**Vegetated** [1482, 75]. **Vegetation** [733, 1433, 1379]. **VEGF** [1240]. **Vehicle** [1021, 2147, 1602, 1839]. **Vehicles** [478, 1034, 2171, 1424, 1880]. **Velocity** [1824]. **veneficum** [1251, 1550]. **veneriformis** [2114]. **Venezuela** [2153]. **Vent** [181, 882, 220, 1564, 1847, 879, 669, 2162, 1288]. **Ventilation** [510, 1924]. **Venting** [1848, 1795]. **Vents** [235, 907, 985, 275, 980, 1043]. **verrucosa** [85]. **verruculosa** [1492]. **versatility** [17]. **Versus** [1570]. **Vertebrate** [2195]. **Vertebrates** [1169, 32]. **Vertical** [1695, 658, 1165, 822, 1972, 1823, 1235, 1079, 849]. **Vertically** [897]. **Vertipools** [1921]. **Vesicomylid** [2143]. **vesiculosus** [188]. **Vessel** [1813, 1810, 1969, 1000, 1932, 2037, 853]. **Vessels** [220, 1198, 523, 1998, 2173]. **via** [2050, 986, 937]. **Viability** [426, 98]. **Vibrio** [639, 831, 943]. **Vicarious** [786]. **Victoria** [905]. **Video** [1564]. **Videography** [455]. **Vietnam** [1653]. **View** [1088, 1943, 1394, 1673]. **Views** [1165, 484]. **Village** [1673, 136]. **Violet** [1206]. **Viral** [226, 1008, 362, 1650, 1098, 158]. **Virgin** [317]. **Virginia** [619]. **virginica** [1832, 1134]. **viridis** [1242]. **Virome** [931]. **Virtual** [1004, 2107]. **Virus** [285, 358]. **Viruses** [931, 485, 452]. **Visible** [1063, 165]. **Vision** [1882, 2051]. **Visions** [1779]. **visited** [1236]. **Visual** [756, 100]. **Visualizing** [780]. **Visually** [1602]. **Vital** [657, 1931]. **Vitamin** [1205]. **vitamins** [503]. **vitro** [348, 1927]. **Vivo** [1131, 1686]. **VOICE** [2185]. **Voices** [698]. **volatile** [23]. **Volcanic** [94, 2056]. **Volcano** [1959, 2056, 2165, 2213]. **volitans** [1724]. **Voltammetric** [278, 152]. **Voluntary** [2090, 1975]. **vs** [907, 1842, 1030, 41, 1036, 407, 735, 816]. **Vulnerabilities** [1170]. **Vulnerability** [2007, 1437, 1459, 1472, 1660, 1965, 2043, 442, 1665]. **Vulnerable** [1867, 651, 1390, 2038, 825, 506, 1407].

**WA** [1657]. **Wadden** [1836]. **Wake** [1064]. **Wall** [1056]. **Warm** [1182, 652]. **Warmer** [1438, 1184]. **Warming** [2144, 1693, 1734, 289, 1980, 593, 2155, 660, 1654, 1382, 628, 1788, 188, 295, 957, 714, 1811, 1117, 1060, 1572, 302, 621, 1162, 60, 76]. **Warmth** [1423]. **Warning** [1340, 778, 260]. **Warnings** [1816]. **Waste** [1456, 1060, 2087, 1408, 1168]. **Wastes** [691]. **Wastewater** [905, 819]. **Wasting** [1008, 1871]. **Watch** [988]. **Watching** [2173]. **Water** [828, 728, 1207, 593, 1612, 766, 580, 1992, 1232, 1652, 1182, 961, 1507, 445, 1498, 917, 1274, 2179, 1356, 519, 1587, 1860, 1649, 639, 603, 1548, 764, 1484, 1752, 627, 597, 2018, 1627, 1698, 2165, 2213, 467, 269, 1710, 440, 1222, 1184, 1919, 455, 1494, 930, 1669, 2052, 891, 329, 451, 2163, 1996, 1929, 870, 620, 1651, 1932, 1976, 1766, 510, 1687, 901, 577, 964, 1419, 1838, 819, 652, 2047, 1539, 499, 1622, 1309, 616, 221, 2128, 610, 115, 146, 104, 59]. **Water-Column** [620]. **Water-Retaining** [1484]. **Waterbirds** [486]. **Waterbody** [343]. **Watercolumn** [655]. **Waters** [1176, 2108, 1072, 291, 617, 973, 422, 516, 1308, 678, 660, 1987, 1609, 1143, 1161, 1103, 1435, 812, 287, 2167, 184, 745, 1208, 555, 932, 1721, 632, 869, 1291, 643, 418, 1001, 2151, 705, 1794, 823, 1202, 836, 1352, 1018, 1107, 1108, 1022, 424, 203, 1048, 388, 436, 1645, 1687, 216, 1643, 471, 652, 416, 1761, 688, 943, 1995, 1825, 1979, 212, 155, 4, 152]. **watsonii**

[1443]. **Wave** [1113, 2028, 2049, 1638, 1957, 1990, 88, 1328, 1387, 297, 1460]. **Wave-Induced** [1638]. **Waves** [1675, 1827, 1939, 1890, 628, 699, 1524, 638]. **Waxes** [1025]. **Way** [1709]. **Ways** [1272, 2159, 70]. **Weaknesses** [363]. **Weather** [739, 1899]. **Weathering** [1829]. **Web** [1819, 1585, 1972, 421, 446, 1710, 609, 1994, 1050, 1071, 782, 109]. **WebCAT** [1819]. **Webs** [1312, 1610, 403]. **Weight** [2151, 831, 1843]. **Welfare** [351, 344]. **Well** [769, 1697]. **Well-Being** [1697]. **Welling** [1310]. **West** [1359, 1965, 324, 1402, 846, 1260, 1612, 1668, 1959, 1784, 365, 542, 1841, 1697, 1152, 1938, 2056, 59]. **Western** [1020, 1765, 555, 809, 1548, 2010, 862, 432, 2198, 1807, 1009, 713, 956, 2140, 1948, 1028, 1512, 2028, 188, 369, 1930, 790, 2054, 1753, 571, 598, 685, 437, 1647, 186, 710, 1586, 151]. **Wet** [1653, 1774]. **Wetland** [481, 1975, 635, 1539]. **Wetlands** [2134]. **WFD** [2152, 1377]. **Whale** [1845, 2108, 1260, 1350, 2055, 2142, 1931, 369, 339, 1099, 2010, 1202, 910, 915, 601, 2173, 1942, 2214, 1970, 1250]. **Whale-Watching** [2173]. **Whales** [1064, 2007, 1535, 1264, 856, 1368, 659, 1765, 1813, 1534, 1446, 914, 300, 1810, 2193, 1969, 1084, 785, 1000, 559, 1713, 782, 1035]. **Whaling** [304, 323, 360]. **Where** [474, 1307, 2016, 231, 499, 2092]. **Which** [1178, 1439]. **Whistle** [2108]. **White** [1385, 1286, 99]. **Whiteleg** [2150]. **Whiting** [2063]. **Who** [1702, 975]. **Whole** [759]. **Wicked** [1537]. **Wide** [1535, 1226, 1287, 169, 1920, 454, 2030, 1986, 1864, 510, 189, 138]. **Wide-Ranging** [1287, 1864, 169, 138]. **Wider** [195, 94]. **Widespread** [1848, 688]. **Wild** [2121, 589, 1789]. **Will** [2090, 978]. **Willingness** [263, 172, 979]. **Wind** [1565, 1827, 1908, 1113, 1387, 1124, 432, 1982, 1369]. **Wind-Induced** [1565, 432]. **Wind-Wave** [1387]. **Winds** [1890, 1908, 1671, 1903, 876]. **Winners** [448, 663, 954, 1811]. **Winning** [1272]. **Winnowing** [834]. **Winter** [994, 1992, 1208, 231]. **Within** [1181, 2195, 1640, 1681, 1139, 1377, 1007, 1328, 1976, 1123, 1029, 502, 397, 855, 246, 119, 384, 689, 477, 883, 504]. **Without** [1090, 1030, 1133, 27]. **WMO** [1875]. **wobbegongs** [98]. **Wood** [821, 193, 90]. **Wood-Boring** [821, 90]. **Word** [789]. **Words** [430]. **Workflows** [1677]. **Working** [1571]. **Workshop** [2040, 1865]. **World** [1163, 1182, 1764, 2075, 2185, 1587, 246, 364, 1714, 471, 1275, 160, 141, 1673]. **Worlds** [1985]. **Worldwide** [995, 294]. **Worms** [1043]. **would** [16]. **Wound** [1809]. **Wrasse** [1608]. **Wreck** [283, 215]. **WWII** [241].

**Xenopus** [1997]. **Xingu** [536]. **Xylophagaidae** [90].

**Yangtze** [1274, 1979]. **Yap** [2198]. **Year** [343, 1664, 884, 862, 2209, 2058, 1731, 1254, 587]. **Year-Round** [884]. **Years** [528, 1329, 1236, 1736, 1531, 1748, 1917, 1159, 738, 1055, 990]. **Yellow** [2155, 301, 2064]. **Yellowfin** [1807]. **Yes** [1487, 49]. **Yield** [484, 1621, 2187, 1376]. **Yield-per-Recruit** [2187]. **Yields** [2108, 174, 213, 52]. **Young** [2126, 1130].

**Z.** [1391]. **Zanzibar** [902]. **Zealand** [722, 513, 1971, 1953, 269, 1611, 442]. **Zebrafish** [1560]. **Zn** [137, 1978]. **Zoantharia** [580, 1771]. **Zoantharians** [580]. **Zonal** [444]. **Zone** [1097, 2067, 1848, 742, 1190, 1346, 1244, 2185, 880, 960, 347, 2204, 222, 597, 714, 1378, 515, 2000, 1189, 1773, 644, 166, 1924, 1622, 529, 595, 2080, 545]. **Zones** [1175, 2016]. **Zoning** [1175]. **Zooplankton** [1529, 1125, 731, 569, 1430, 403, 1999, 869, 1339, 2204, 1089, 1753, 25, 1607, 2189, 644, 1863, 1759]. **Zooplankton-Mediated** [2204]. **Zoothanella** [959]. **Zooxanthella** [1473]. **Zooxanthellate** [1986, 79]. **Zostera** [486, 135, 308, 1102, 1476, 718, 440, 1328]. **zosteræ** [1734].

## References

**Borja:2014:GCM**

- [1] Angel Borja. Grand challenges in marine ecosystems ecology. *Frontiers in Marine Science*, 1, 2014. ISSN 2296-7745.

**Trincone:2014:IKG**

- [2] Antonio Trincone. Increasing knowledge: the grand challenge in marine biotechnology. *Frontiers in Marine Science*, 1, 2014. ISSN 2296-7745.

**Bender:2014:TRT**

- [3] Sara J. Bender, Colleen A. Durkin, Chris T. Berthiaume, Rhonda L. Morales, and E. Virginia Armbrust. Transcriptional responses of three model diatoms to nitrate limitation of growth. *Frontiers in Marine Science*, 1, March 2014. ISSN 2296-7745.

**Gypens:2014:IDD**

- [4] Nathalie Gypens and Alberto V. Borges. Increase in dimethylsulfide (DMS) emissions due to eutrophication of coastal waters offsets their reduction due to ocean acidification. *Frontiers in Marine Science*, 1, April 2014. ISSN 2296-7745.

**Warner:2014:CMB**

- [5] Robin M. Warner. Conserving marine biodiversity in areas beyond national jurisdiction: co-evolution and interaction with the Law of the Sea. *Frontiers in Marine Science*, 1, May 2014. ISSN 2296-7745.

**Achterberg:2014:GCM**

- [6] Eric P. Achterberg. Grand challenges in marine biogeochemistry. *Frontiers in Marine Science*, 1, May 2014. ISSN 2296-7745.

**Sorensen:2014:TNS**

- [7] Martin V. Sørensen and Stephen C. Landers. Two new species of *Echinoderes* (Kinorhyncha: Cyclorhagida) from the Gulf of Mexico. *Frontiers in Marine Science*, 1, May 2014. ISSN 2296-7745. See corrigendum [120].

**Dahms:2014:GCM**

- [8] Hans U. Dahms. The grand challenges in marine pollution research. *Frontiers in Marine Science*, 1, May 2014. ISSN 2296-7745.

**Araujo:2014:NCF**

- [9] Moacyr Araujo, Carlos Noriega, and Nathalie Lefèvre. Nutrients and carbon fluxes in the estuaries of major rivers flowing into the tropical Atlantic. *Frontiers in Marine Science*, 1, May 2014. ISSN 2296-7745.

**Shinzato:2014:DNC**

- [10] Chuya Shinzato, Yuki Yasuoka, Sutada Mungpakdee, Nana Arakaki, Manabu Fujie, Yuichi Nakajima, and Nori Satoh. Development of novel, cross-species microsatellite markers for *Acropora* corals using next-generation sequencing technology. *Frontiers in Marine Science*, 1, May 2014. ISSN 2296-7745.

**Terra:2014:MAR**

- [11] Luciana Terra, Paula A. Abreu, Valéria L. Teixeira, Izabel C. P. Paixão, Rebeca Pereira, Bruno Leal, André Luiz Lourenço, Pabulo H. Rampelotto, and Helena C. Castro. Mycoses and antifungals: reviewing the basis of a current problem that still is a biotechnological target for marine products. *Frontiers in Marine Science*, 1, June 2014. ISSN 2296-7745.

**Sjollema:2014:SVI**

- [12] Sascha B. Sjollema, Charlotte D. Vavourakis, Harm G. van der Geest, A. Dick Vethaak, and Wim Admiraal. Seasonal variability in irradiance affects herbicide toxicity to the marine flagellate *Dunaliella tertiolecta*. *Frontiers in Marine Science*, 1, June 2014. ISSN 2296-7745.

**Gov:2014:SBS**

- [13] Esra Gov and Kazim Y. Arga. Systems biology solutions to challenges in marine biotechnology. *Frontiers in Marine Science*, 1, June 2014. ISSN 2296-7745.

**Acevedo-Trejos:2014:GFC**

- [14] Esteban Acevedo-Trejos, Gunnar Brandt, Marco Steinacher, and Agostino Merico. A glimpse into the future composition of marine phyto-

plankton communities. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Stuart:2014:DPF**

- [15] Rhona K. Stuart, Bianca Brahamsha, and Brian Palenik. A Deg-protease family protein in marine *Synechococcus* is involved in outer membrane protein organization. *Frontiers in Marine Science*, 1, June 2014. ISSN 2296-7745.

**Glibert:2014:PCS**

- [16] Patricia M. Glibert, Frances P. Wilkerson, Richard C. Dugdale, Alexander E. Parker, Jeffrey Alexander, Sarah Blaser, and Susan Murasko. Phytoplankton communities from San Francisco Bay Delta respond differently to oxidized and reduced nitrogen substrates — even under conditions that would otherwise suggest nitrogen sufficiency. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Murillo:2014:EMV**

- [17] Alejandro A. Murillo, Salvador Ramírez-Flandes, Edward F. DeLong, and Osvaldo Ulloa. Enhanced metabolic versatility of planktonic sulfur-oxidizing  $\gamma$ -proteobacteria in an oxygen-deficient coastal ecosystem. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Regaudie-de-Gioux:2014:CMP**

- [18] Aurore Regaudie de Gioux, Sébastien Lasternas, Susana Agustí, and Carlos M. Duarte. Comparing marine primary production estimates through different methods and development of conversion equations. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Nuttall:2014:PFW**

- [19] Peter R. Nuttall, Alison Newell, Amelia Bola, John Kaitu'u, and Biman Prasad. Policy and financing — why is sea transport currently invisible in the search for a low carbon future for Pacific Island countries? *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Ueda:2014:NON**

- [20] Nobuo Ueda and Sandie M. Degnan. Nitric oxide is not a negative regulator of metamorphic induction in the abalone *Haliotis asinina*. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Galparsoro:2014:MES**

- [21] Ibon Galparsoro, Angel Borja, and María C. Uyarra. Mapping ecosystem services provided by benthic habitats in the European North Atlantic Ocean. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.



**Moles:2014:AIA**

- [22] Juan Moles, Anna Torrent, M. José Alcaraz, Ramon Ruhí, and Conxita Avila. Anti-inflammatory activity in selected Antarctic benthic organisms. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Ruiz-Halpern:2014:SDV**

- [23] Sergio Ruiz-Halpern, Pedro Echeveste, Susana Agustí, and Carlos M. Duarte. Size-dependence of volatile and semi-volatile organic carbon content in phytoplankton cells. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Trincone:2014:MFM**

- [24] Antonio Trincone. Molecular fishing: marine oligosaccharides. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Pearman:2014:ZDA**

- [25] John K. Pearman, Mohsen M. El-Sherbiny, Anders Lanzén, Ali M. Al-Aidaros, and Xabier Irigoien. Zooplankton diversity across three Red Sea reefs using pyrosequencing. *Frontiers in Marine Science*, 1, July 2014. ISSN 2296-7745.

**Heithaus:2014:SAS**

- [26] Michael R. Heithaus, Teresa Alcoverro, Rohan Arthur, Derek A. Burkholder, Kathryn A. Coates, Marjolijn J. A. Christianen, Nachiket Kelkar, Sarah A. Manuel, Aaron J. Wirsing, W. Judson Kenworthy, and James W. Fourqurean. Seagrasses in the age of sea turtle conservation and shark overfishing. *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Banse:2014:AOC**

- [27] Karl M. Banse. Assessing ocean changes without data centers? *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Vij:2014:BAS**

- [28] Shubha Vij, Kathiresan Purushothaman, G. Gopikrishna, Doreen Lau, Jolly M. Saju, K. V. Shamsudheen, K. Vinaya Kumar, V. S. Basheer, A. Gopalakrishnan, Mohammad S. Hossain, Sridhar Sivasubbu, Vinod Scaria, J. K. Jena, A. G. Ponniah, and László Orbán. Barcoding of Asian seabass across its geographic range provides evidence for its bifurcation into two distinct species. *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Forrest:2014:CMC**

- [29] Jay Forrest, Paul Bazylewski, Robert Bauer, Seongjin Hong, Chang Yong Kim, John P. Giesy, Jong Seong Khim, and Gap Soo Chang. A comprehensive model for chemical bioavailability and toxicity of organic chemicals based on first principles. *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Katsanevakis:2014:IMS**

- [30] Stelios Katsanevakis, Marta Coll, Chiara Piroddi, Jeroen Steenbeek, Frida Ben Rais Lasram, Argyro Zenetos, and Ana Cristina Cardoso. Invading the Mediterranean Sea: biodiversity patterns shaped by human activities. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Carstensen:2014:NMM**

- [31] Jacob Carstensen. Need for monitoring and maintaining sustainable marine ecosystem services. *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Wang:2014:CFA**

- [32] Wei-Chao Wang, Huan Mao, Dan-Dan Ma, and Wan-Xi Yang. Characteristics, functions, and applications of metallothionein in aquatic vertebrates. *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Silber:2014:MAA**

- [33] Johanna Silber, Birgit Ohlendorf, Antje Labes, Arlette Wenzel-Storjohann, Christian Näther, and Johannes F. Imhoff. Malettinin E, an antibacterial and antifungal tropolone produced by a marine *Cladosporium* strain. *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Rudd:2014:SPG**

- [34] Murray A. Rudd. Scientists' perspectives on global ocean research priorities. *Frontiers in Marine Science*, 1, August 2014. ISSN 2296-7745.

**Lindemann:2014:SDP**

- [35] Christian Lindemann and Michael A. St. John. A seasonal diary of phytoplankton in the North Atlantic. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Barone:2014:MMV**

- [36] Rosalba Barone, Concetta De Santi, Fortunato Palma Esposito, Pietro Tedesco, Federica Galati, Marco Visone, Alessia Di Scala, and Donatella

De Pascale. Marine metagenomics, a valuable tool for enzymes and bioactive compounds discovery. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Wu:2014:DTO**

- [37] Lijiao Wu, Zhenhuang Chen, Jingmin Zhu, Lingling Hu, Xiao Huang, and Huahong Shi. Developmental toxicity of organotin compounds in animals. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Ambrose:2014:IEC**

- [38] William G. Ambrose, Lisa M. Clough, Jeffrey C. Johnson, Michael Greenacre, David C. Griffith, Michael L. Carroll, and Alex Whiting. Interpreting environmental change in coastal Alaska using traditional and scientific ecological knowledge. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Kristensen:2014:IBM**

- [39] Erik Kristensen, Matthieu Delefosse, Cintia O. Quintana, Mogens R. Flindt, and Thomas Valdemarsen. Influence of benthic macrofauna community shifts on ecosystem functioning in shallow estuaries. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Barron:2014:DOC**

- [40] Cristina Barrón, Eugenia T. Apostolaki, and Carlos M. Duarte. Dissolved organic carbon fluxes by seagrass meadows and macroalgal beds. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Hays:2014:DMV**

- [41] Graeme C. Hays, Antonios D. Mazaris, and Gail Schofield. Different male vs. female breeding periodicity helps mitigate offspring sex ratio skews in sea turtles. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Marlow:2014:MAD**

- [42] Jeffrey J. Marlow, Joshua A. Steele, David H. Case, Stephanie A. Connon, Lisa A. Levin, and Victoria J. Orphan. Microbial abundance and diversity patterns associated with sediments and carbonates from the methane seep environments of Hydrate Ridge, OR. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Alcaraz:2014:CCP**

- [43] Miquel Alcaraz, Rodrigo Almeda, Carlos M. Duarte, Burkhard Horstkotte, Sebastien Lasternas, and Susana Agustí. Changes in the C,

N, and P cycles by the predicted salps–krill shift in the Southern Ocean. *Frontiers in Marine Science*, 1, September 2014. ISSN 2296-7745.

**Fernandes:2014:MEF**

- [44] Pedro Fernandes. Marine enzymes and food industry: insight on existing and potential interactions. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Chatzigeorgiou:2014:CSP**

- [45] Giorgos Chatzigeorgiou, Elena Sarropoulou, Katerina Vasileiadou, Christina Brown, Sarah Faulwetter, Giorgos Kotoulas, and Christos D. Arvanitidis. Community structure and population genetics of Eastern Mediterranean polychaetes. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Samo:2014:BDH**

- [46] Ty J. Samo, Steven Smriga, Francesca Malfatti, Byron P. Sherwood, and Farooq Azam. Broad distribution and high proportion of protein synthesis active marine bacteria revealed by click chemistry at the single cell level. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745. See corrigendum [58].

**Coello-Camba:2014:IET**

- [47] Alexandra Coello-Camba, Susana Agustí, Johnna Holding, Jesús M. Arrieta, and Carlos M. Duarte. Interactive effect of temperature and CO<sub>2</sub> increase in Arctic phytoplankton. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Stadlander:2014:IGA**

- [48] Christian T. K.-H. Stadtländer. International governance of the Arctic marine environment. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Bishop:2014:HNM**

- [49] Cory D. Bishop and William J. Biggers. In *Haliotis*, NO means YES. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Chandramouli:2014:PIP**

- [50] Kondethimmanahalli H. Chandramouli, Pei-Yuan Qian, and Timothy Ravasi. Proteomics insights: proteins related to larval attachment and metamorphosis of marine invertebrates. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Chen:2014:NIE**

- [51] Wei-Jen Chen, Francesco Santini, Giorgio Carnevale, Jhen-Nien Chen, Shu-Hui Liu, Seébastien Lavoué, and Richard L. Mayden. New insights on early evolution of spiny-rayed fishes (Teleostei: Acanthomorpha). *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Waters:2014:ASA**

- [52] Amanda L. Waters, Olivier Peraud, Noer Kasanah, James W. Sims, Nuwan Kothalawala, Matthew A. Anderson, Samuel H. Abbas, Karumanchi V. Rao, Vijay R. Jupally, Michelle Kelly, Amala Dass, Russell T. Hill, and Mark T. Hamann. An analysis of the sponge *Acanthostrongylophora igens*' microbiome yields an actinomycete that produces the natural product manzamine A. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Andersen:2014:IAM**

- [53] Jesper H. Andersen, Karsten Dahl, Cordula Göke, Martin Hartvig, Ciarán Murray, Anna Rindorf, Henrik Skov, Morten Vinther, and Samuli Korpinen. Integrated assessment of marine biodiversity status using a prototype indicator-based assessment tool. *Frontiers in Marine Science*, 1, October 2014. ISSN 2296-7745.

**Foster:2014:SHV**

- [54] Sarah Q. Foster and Robinson W. Fulweiler. Spatial and historic variability of benthic nitrogen cycling in an anthropogenically impacted estuary. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745. See corrigendum [238].

**Soto:2014:ELI**

- [55] Luis A. Soto, Alfonso V. Botello, Sergio Licea-Durán, Marcial L. Lizárraga-Partida, and Alejandro Yáñez-Arancibia. The environmental legacy of the *Ixtoc-I* oil spill in Campeche Sound, southwestern Gulf of Mexico. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**vanderMerwe:2014:HST**

- [56] Riaan van der Merwe, Till Röthig, Christian R. Voolstra, Michael A. Ochsenkühn, Sabine Lattemann, and Gary L. Amy. High salinity tolerance of the Red Sea coral fungus *granulosa* under desalination concentrate discharge conditions: an in situ photophysiology experiment. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**Baums:2014:MCP**

- [57] Iliana B. Baums, Meghann Devlin-Durante, Beatrice A. A. Laing, Joshua Feingold, Tyler Smith, Andrew Bruckner, and Joao Monteiro. Marginal coral populations: the densest known aggregation of *Pocillopora* in the Galápagos Archipelago is of asexual origin. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**Samo:2014:CBD**

- [58] Ty J. Samo, Steven Smriga, Francesca Malfatti, Byron P. Sherwood, and Farooq Azam. Corrigendum: Broad distribution and high proportion of protein synthesis active marine bacteria revealed by click chemistry at the single cell level. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745. See [46].

**Yang:2014:ICD**

- [59] Shun-Chung Yang, Der-Chuen Lee, Tung-Yuan Ho, Liang-Saw Wen, and Hsu-Han Yang. The isotopic composition of dissolved cadmium in the water column of the West Philippine Sea. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**Gazeau:2014:IOA**

- [60] Frédéric Gazeau, Samir Alliouane, Christian Bock, Lorenzo Bramanti, Matthias López Correa, Miriam Gentile, Timo Hirse, Hans-Otto Pörtner, and Patrizia Ziveri. Impact of ocean acidification and warming on the Mediterranean mussel (*Mytilus galloprovincialis*). *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**Duarte:2014:GCF**

- [61] Carlos M. Duarte. Global change and the future ocean: a grand challenge for marine sciences. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Holmer:2014:SIS**

- [62] Marianne Holmer and Harald Hasler-Sheetal. Sulfide intrusion in sea-grasses assessed by stable sulfur isotopes — a synthesis of current results. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**Collin:2014:RRS**

- [63] Antoine Collin, Philippe Archambault, and Serge Planes. Revealing the regime of shallow coral reefs at patch scale by continuous spatial modeling. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**Boziaris:2014:FIM**

- [64] Ioannis S. Boziaris. Food ingredients from the marine environment. Marine biotechnology meets food science and technology. *Frontiers in Marine Science*, 1, November 2014. ISSN 2296-7745.

**Ruiz-Halpern:2014:ABM**

- [65] Sergio Ruiz-Halpern, Raquel Vaquer-Sunyer, and Carlos M. Duarte. Annual benthic metabolism and organic carbon fluxes in a semi-enclosed Mediterranean bay dominated by the macroalgae *Caulerpa prolifera*. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Wu:2014:LCD**

- [66] Yaping Wu, Jennifer Jeans, David J. Suggett, Zoe V. Finkel, and Douglas A. Campbell. Large centric diatoms allocate more cellular nitrogen to photosynthesis to counter slower RUBISCO turnover rates. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Thao:2014:CPB**

- [67] Ngo V. Thao, Yumiko Obayashi, Taichi Yokokawa, and Satoru Suzuki. Coexisting protist-bacterial community accelerates protein transformation in microcosm experiments. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Reisser:2014:IPS**

- [68] Julia Reisser, Maira Proietti, Jeremy Shaw, and Charitha Pattiaratchi. Ingestion of plastics at sea: does debris size really matter? *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Nanninga:2014:RIV**

- [69] Gerrit B. Nanninga and Michael L. Berumen. The role of individual variation in marine larval dispersal. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Borja:2014:TTO**

- [70] Angel Borja, Theo C. Prins, Nomiki Simboura, Jesper H. Andersen, Torsten Berg, Joao-Carlos Marques, Joao M. Neto, Nadia Papadopoulou, Johnny Reker, Heliana Teixeira, and Laura Uusitalo. Tales from a thousand and one ways to integrate marine ecosystem components when assessing the environmental status. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Mahaffey:2014:APA**

- [71] Claire Mahaffey, Sarah Reynolds, Clare E. Davis, and Maeve C. Lohan. Alkaline phosphatase activity in the subtropical ocean: insights from nutrient, dust and trace metal addition experiments. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Orlova:2015:CED**

- [72] Emma L. Orlova, Andrey V. Dolgov, Paul E. Renaud, Michael Greenacre, Claudia Halsband, and Victor A. Ivshin. Climatic and ecological drivers of euphausiid community structure vary spatially in the Barents Sea: relationships from a long time series (1952–2009). *Frontiers in Marine Science*, 1, January 2015. ISSN 2296-7745.

**Maclean:2014:RIE**

- [73] Ilya M. D. Maclean, Richard Inger, David Benson, Cormac G. Booth, Clare B. Embling, W. James Grecian, Johanna J. Heymans, Kate E. Plummer, Michael Shackshaft, Carol E. Sparling, Ben Wilson, Lucy J. Wright, Gareth Bradbury, Nadja Christen, Brendan J. Godley, Angus C. Jackson, Aly McCluskie, Rachel Nicholls-Lee, and Stuart Bearhop. Resolving issues with environmental impact assessment of marine renewable energy installations. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Anttila:2014:ABS**

- [74] Katja Anttila, Sven Martin Jørgensen, Matthew T. Casselman, Gerrit Timmerhaus, Anthony P. Farrell, and Harald Takle. Association between swimming performance, cardiorespiratory morphometry, and thermal tolerance in Atlantic salmon (*Salmo salar* L.). *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Krause-Jensen:2014:EVC**

- [75] Dorte Krause-Jensen and Carlos M. Duarte. Expansion of vegetated coastal ecosystems in the future Arctic. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Lunden:2014:ASD**

- [76] Jay J. Lunden, Conall G. McNicholl, Christopher R. Sears, Cheryl L. Morrison, and Erik E. Cordes. Acute survivorship of the deep-sea coral *Lophelia pertusa* from the Gulf of Mexico under acidification, warming, and deoxygenation. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.



**Tovar-Sanchez:2014:SGT**

- [77] Antonio Tovar-Sánchez, Jesús M. Arrieta, Carlos M. Duarte, and Sergio A. Sañudo-Wilhelmy. Spatial gradients in trace metal concentrations in the surface microlayer of the Mediterranean Sea. *Frontiers in Marine Science*, 1, December 2014. ISSN 2296-7745.

**Chen:2015:INR**

- [78] Ying Chen and Fengping Wang. Insights on nitrate respiration by she-wanella. *Frontiers in Marine Science*, 1, January 2015. ISSN 2296-7745.

**Veron:2015:ODP**

- [79] John Veron, Mary Stafford-Smith, Lyndon DeVantier, and Emre Turak. Overview of distribution patterns of zooxanthellate scleractinia. *Frontiers in Marine Science*, 1, February 2015. ISSN 2296-7745.

**Helm:2015:CAM**

- [80] Conrad Helm and María Capa. Comparative analyses of morphological characters in Sphaerodoridae and allies (Annelida) revealed by an integrative microscopical approach. *Frontiers in Marine Science*, 1, January 2015. ISSN 2296-7745.

**Signorini:2015:CVO**

- [81] Sergio R. Signorini, Bryan A. Franz, and Charles R. McClain. Chlorophyll variability in the oligotrophic gyres: mechanisms, seasonality and trends. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Eidens:2015:MSP**

- [82] Corvin Eidens, Torsten Hauffe, Elisa Bayraktarov, Christian Wild, and Thomas Wilke. Multi-scale processes drive benthic community structure in upwelling-affected coral reefs. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Woodall:2015:DSL**

- [83] Lucy C. Woodall, Laura F. Robinson, Alex D. Rogers, Bhavani E. Narayanaswamy, and Gordon L. J. Paterson. Deep-sea litter: a comparison of seamounts, banks and a ridge in the Atlantic and Indian Oceans reveals both environmental and anthropogenic factors impact accumulation and composition. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Ziegler:2015:MCD**

- [84] Maren Ziegler, Cornelia M. Roder, Claudia Büchel, and Christian R. Woolstra. Mesophotic coral depth acclimatization is a function of host-

specific symbiont physiology. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Robitzch:2015:AGD**

- [85] Vanessa Robitzch, Eulalia Banguera-Hinestroza, Yvonne Sawall, Abdulmohsin Al-Sofyani, and Christian R. Woolstra. Absence of genetic differentiation in the coral *Pocillopora verrucosa* along environmental gradients of the Saudi Arabian Red Sea. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Hilario:2015:EDD**

- [86] Ana Hilário, Anna Metaxas, Sylvie M. Gaudron, Kerry L. Howell, Annie Mercier, Nélia C. Mestre, Rebecca E. Ross, Andreas M. Thurnherr, and Craig Young. Estimating dispersal distance in the deep sea: challenges and applications to marine reserves. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Gardner:2015:RBI**

- [87] Patrick G. Gardner, Thomas K. Frazer, Charles A. Jacoby, and Roy P. E. Yanong. Reproductive biology of invasive lionfish (*Pterois* spp.). *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Rattray:2015:WEP**

- [88] Alex Rattray, Daniel Ierodiaconou, and Tim Womersley. Wave exposure as a predictor of benthic habitat distribution on high energy temperate reefs. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Boyd:2015:MIB**

- [89] Philip W. Boyd and Christopher J. Brown. Modes of interactions between environmental drivers and marine biota. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Amon:2015:BFG**

- [90] Diva J. Amon, Daniel Sykes, Farah Ahmed, Jonathan T. Copley, Kirsty M. Kemp, Paul A. Tyler, Craig M. Young, and Adrian G. Glover. Burrow forms, growth rates and feeding rates of wood-boring Xylophagidae bivalves revealed by micro-computed tomography. *Frontiers in Marine Science*, 2, April 2015. ISSN 2296-7745.

**Broderick:2015:GCM**

- [91] Annette C. Broderick. Grand challenges in marine conservation and sustainable use. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Heupel:2015:CCS**

- [92] Michelle R. Heupel, Colin A. Simpfendorfer, Mario Espinoza, Amy F. Smoothey, Andrew Tobin, and Victor Peddemors. Conservation challenges of sharks with continental scale migrations. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Rodriguez-Zaragoza:2015:CBB**

- [93] Fabián A. Rodríguez-Zaragoza and Jesús E. Arias-González. Coral biodiversity and bio-construction in the northern sector of the Mesoamerican reef system. *Frontiers in Marine Science*, 2, March 2015. ISSN 2296-7745.

**Browning:2015:VAS**

- [94] Thomas J. Browning, Katherine Stone, Heather A. Bouman, Tamsin A. Mather, David M. Pyle, C. Mark Moore, and Victor Martinez-Vicente. Volcanic ash supply to the surface ocean — remote sensing of biological responses and their wider biogeochemical significance. *Frontiers in Marine Science*, 2, March 2015. ISSN 2296-7745.

**Harrison:2015:RPP**

- [95] Lisa-Marie K. Harrison, Martin J. Cox, Georg Skaret, and Robert Harcourt. The R package *EchoviewR* for automated processing of active acoustic data using *Echoview*. *Frontiers in Marine Science*, 2, February 2015. ISSN 2296-7745.

**Momigliano:2015:CCR**

- [96] Paolo Momigliano, Robert Harcourt, and Adam Stow. Conserving coral reef organisms that lack larval dispersal: are networks of Marine Protected Areas good enough? *Frontiers in Marine Science*, 2, March 2015. ISSN 2296-7745.

**Corinaldesi:2015:NPB**

- [97] Cinzia Corinaldesi. New perspectives in benthic deep-sea microbial ecology. *Frontiers in Marine Science*, 2, March 2015. ISSN 2296-7745.

**Lee:2015:BFA**

- [98] Kathryn A. Lee, Charlie Huveneers, Victor Peddemors, Andrew Boomer, and Robert G. Harcourt. Born to be free? Assessing the viability of releasing captive-bred wobbegongs to restock depleted populations. *Frontiers in Marine Science*, 2, April 2015. ISSN 2296-7745.

**Kanive:2015:EAS**

- [99] Paul E. Kanive, Jay J. Rotella, Salvador J. Jorgensen, Taylor K. Chapple, Scot D. Anderson, A. Peter Klimley, and Barbara A. Block. Estimating apparent survival of sub-adult and adult white sharks (*Carcharodon carcharias*) in central California using mark-recapture methods. *Frontiers in Marine Science*, 2, April 2015. ISSN 2296-7745.

**Schoening:2015:DFA**

- [100] Timm Schoening, Thomas Kuhn, Melanie Bergmann, and Tim W. Natkemper. DELPHI — fast and adaptive computational laser point detection and visual footprint quantification for arbitrary underwater image collections. *Frontiers in Marine Science*, 2, April 2015. ISSN 2296-7745.

**OToole:2015:FSS**

- [101] Malcolm D. O’Toole, Mary-Anne Lea, Christophe Guinet, Robert Schick, and Mark A. Hindell. Foraging strategy switch of a top marine predator according to seasonal resource differences. *Frontiers in Marine Science*, 2, April 2015. ISSN 2296-7745.

**Meyer:2015:EFS**

- [102] Kirstin S. Meyer, Andrew K. Sweetman, Craig M. Young, and Paul E. Renaud. Environmental factors structuring Arctic megabenthos — a case study from a shelf and two fjords. *Frontiers in Marine Science*, 2, April 2015. ISSN 2296-7745.

**Tsikliras:2015:MTC**

- [103] Athanassios C. Tsikliras, Panagiota Peristeraki, George Tserpes, and Konstantinos I. Stergiou. Mean temperature of the catch (MTC) in the Greek Seas based on landings and survey data. *Frontiers in Marine Science*, 2, April 2015. ISSN 2296-7745.

**Wagner:2015:TSS**

- [104] Daniel Wagner. A taxonomic survey of the shallow-water (< 150 m) black corals (Cnidaria: Antipatharia) of the Hawaiian Islands. *Frontiers in Marine Science*, 2, May 2015. ISSN 2296-7745.

**Celis-Pla:2015:MRO**

- [105] Paula S. M. Celis-Plá, Jason M. Hall-Spencer, Paulo Antunes Horta, Marco Milazzo, Nathalie Korbee, Christopher E. Cornwall, and Félix L. Figueroa. Macroalgal responses to ocean acidification depend on nutrient and light levels. *Frontiers in Marine Science*, 2, May 2015. ISSN 2296-7745.

**Louis:2015:DIN**

- [106] Justine Louis, Matthieu Bressac, Maria L. Pedrotti, and Cécile Guieu. Dissolved inorganic nitrogen and phosphorus dynamics in seawater following an artificial Saharan dust deposition event. *Frontiers in Marine Science*, 2, May 2015. ISSN 2296-7745.

**Rohde:2015:CNS**

- [107] Melissa M. Rohde, Julie Granger, Daniel M. Sigman, and Moritz F. Lehmann. Coupled nitrate N and O stable isotope fractionation by a natural marine plankton consortium. *Frontiers in Marine Science*, 2, May 2015. ISSN 2296-7745.

**Libralato:2015:MSI**

- [108] Simone Libralato, Alberto Caccin, and Fabio Pranovi. Modeling species invasions using thermal and trophic niche dynamics under climate change. *Frontiers in Marine Science*, 2, May 2015. ISSN 2296-7745.

**Renaud:2015:MDF**

- [109] Paul E. Renaud, Therese S. Løkken, Lis L. Jørgensen, Jørgen Berge, and Beverly J. Johnson. Macroalgal detritus and food-web subsidies along an Arctic fjord depth-gradient. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Hejnowicz:2015:HCM**

- [110] Adam P. Hejnowicz, Hilary Kennedy, Murray A. Rudd, and Mark R. Huxham. Harnessing the climate mitigation, conservation and poverty alleviation potential of seagrasses: prospects for developing blue carbon initiatives and payment for ecosystem service programmes. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Parsons:2015:GBU**

- [111] E. C. M. Parsons and Andrew J. Wright. The good, the bad and the ugly science: examples from the marine science arena. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Zhang:2015:SOM**

- [112] Yong Zhang and Wei-Dong Zhai. Shallow-ocean methane leakage and degassing to the atmosphere: triggered by offshore oil-gas and methane hydrate explorations. *Frontiers in Marine Science*, 2, May 2015. ISSN 2296-7745.

**Lindgren:2015:LCP**

- [113] J. Fredrik Lindgren, Ida-Maja Hassellöv, Hanna Landquist, and Ingela Dahllöf. Low concentrations of PAHs induce tolerance in nitrifying bacteria. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Howes:2015:USO**

- [114] Ella L. Howes, Fortunat Joos, C. Mark Eakin, and Jean-Pierre Gattuso. An updated synthesis of the observed and projected impacts of climate change on the chemical, physical and biological processes in the oceans. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Cathalot:2015:CWC**

- [115] Cécile Cathalot, Dick Van Oevelen, Tom J. S. Cox, Tina Kutti, Marc Lavaleye, Gerard Duineveld, and Filip J. R. Meysman. Cold-water coral reefs and adjacent sponge grounds: hotspots of benthic respiration and organic carbon cycling in the deep sea. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Trindade-Santos:2015:ARP**

- [116] Isaac Trindade-Santos and Kátia de Meirelles Felizola Freire. Analysis of reproductive patterns of fishes from three large marine ecosystems. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Paiva:2015:ARA**

- [117] Sandra V. Paiva, Ronaldo R. de Oliveira Filho, and Tito M. da Cruz Lotufo. Ascidians from Rocas Atoll, northeast Brazil. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Benavides:2015:FDF**

- [118] Mar Benavides and Maren Voss. Five decades of N<sub>2</sub> fixation research in the North Atlantic Ocean. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Kowalczyk:2015:SFW**

- [119] Nicole D. Kowalczyk, Richard D. Reina, Tiana J. Preston, and André Chiaradia. Selective foraging within estuarine plume fronts by an inshore resident seabird. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Sorensen:2015:CTN**

- [120] Martin V. Sørensen and Stephen C. Landers. Corrigendum: Two new species of *Echinoderes* (Kinorhyncha: Cyclorhagida) from the Gulf of

Mexico. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745. See [7].

**Purcell:2015:DSS**

- [121] Steven W. Purcell and Robert S. Pomeroy. Driving small-scale fisheries in developing countries. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Cohen:2015:LTP**

- [122] Itay Cohen and Zvy Dubinsky. Long term photoacclimation responses of the coral *Stylophora pistillata* to reciprocal deep to shallow transplantation: photosynthesis and calcification. *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Olsen:2015:HCM**

- [123] Yngvar Olsen. How can mariculture better help feed humanity? *Frontiers in Marine Science*, 2, June 2015. ISSN 2296-7745.

**Sweetman:2015:FAF**

- [124] Andrew K. Sweetman and Annelise Chapman. First assessment of flux rates of jellyfish carcasses (jelly-falls) to the benthos reveals the importance of gelatinous material for biological C-cycling in jellyfish-dominated ecosystems. *Frontiers in Marine Science*, 2, July 2015. ISSN 2296-7745.

**Garcia-Corral:2015:EAC**

- [125] Lara S. Garcia-Corral, Juan Martinez-Ayala, Carlos M. Duarte, and Susana Agusti. Experimental assessment of cumulative temperature and UV-B radiation effects on Mediterranean plankton metabolism. *Frontiers in Marine Science*, 2, July 2015. ISSN 2296-7745.

**Steckbauer:2015:SEH**

- [126] Alexandra Steckbauer, Laura Ramajo, Iris E. Hendriks, Miriam Fernandez, Nelson A. Lagos, Luis Prado, and Carlos M. Duarte. Synergistic effects of hypoxia and increasing CO<sub>2</sub> on benthic invertebrates of the central Chilean coast. *Frontiers in Marine Science*, 2, July 2015. ISSN 2296-7745.

**Aswani:2015:SFM**

- [127] Shankar Aswani, Peter J. Mumby, Andrew C. Baker, Patrick Christie, Laurence J. McCook, Robert S. Steneck, and Robert H. Richmond. Scientific frontiers in the management of coral reefs. *Frontiers in Marine Science*, 2, July 2015. ISSN 2296-7745.

**Karunaratna:2015:AMS**

- [128] Harshinie U. Karunaratna, Hajime Mase, and Yasuyuki Baba. Analysis of multi-scale morphodynamic behavior of a high energy beach facing the Sea of Japan. *Frontiers in Marine Science*, 2, July 2015. ISSN 2296-7745.

**Andersson:2015:FPC**

- [129] Andreas J. Andersson. A fundamental paradigm for coral reef carbonate sediment dissolution. *Frontiers in Marine Science*, 2, July 2015. ISSN 2296-7745.

**Cruaud:2015:MCA**

- [130] Perrine Cruaud, Adrien Vigneron, Patricia Pignet, Jean-Claude Caprais, Françoise Lesongeur, Laurent Toffin, Anne Godfroy, and Marie-Anne Cambon-Bonavita. Microbial communities associated with benthic faunal assemblages at cold seep sediments of the Sonora Margin, Guaymas Basin. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Martinez-Soto:2015:SSV**

- [131] Marly C. Martínez-Soto, Gotzon Basterretxea, Esther Garcés, Silvia Anglès, Antoni Jordi, and Antonio Tovar-Sánchez. Species-specific variation in the phosphorus nutritional sources by microphytoplankton in a Mediterranean estuary. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Wallmo:2015:PPE**

- [132] Kristy Wallmo and Daniel K. Lew. Public preferences for endangered species recovery: an examination of geospatial scale and non-market values. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Marba:2015:FCC**

- [133] Núria Marbà, Gabriel Jordà, Susana Agustí, Coraline Girard, and Carlos M. Duarte. Footprints of climate change on Mediterranean Sea biota. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Stringell:2015:FCM**

- [134] Thomas B. Stringell, Wesley V. Clerveaux, Brendan J. Godley, Quinton Phillips, Susan Ranger, Peter B. Richardson, Amdeep Sanghera, and Annette C. Broderick. Fisher choice may increase prevalence of green turtle fibropapillomatosis disease. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.



**Brodersen:2015:ECS**

- [135] Kasper E. Brodersen, Mads Lichtenberg, Laura-Carlota Paz, and Michael Kühl. Epiphyte-cover on seagrass (*Zostera marina* L.) leaves impedes plant performance and radial O<sub>2</sub> loss from the below-ground tissue. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Newell:2015:SSD**

- [136] Alison P. Newell and Amelia R. T. Bola. The Solodamu Surveys: determining fossil fuel use and sea transport need in a coastal village in Fiji. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Kim:2015:DZS**

- [137] Taejin Kim, Hajime Obata, and Toshitaka Gamo. Dissolved Zn and its speciation in the northeastern Indian Ocean and the Andaman Sea. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Higgs:2015:BBW**

- [138] Nicholas D. Higgs and Martin J. Attrill. Biases in biodiversity: wide-ranging species are discovered first in the deep sea. *Frontiers in Marine Science*, 2, August 2015. ISSN 2296-7745.

**Daniels:2015:MAR**

- [139] Camille A. Daniels, Sebastian Baumgarten, Lauren K. Yum, Craig T. Michell, Till Bayer, Chatchanit Arif, Cornelia Roder, Ernesto Weil, and Christian R. Woolstra. Metatranscriptome analysis of the reef-building coral *Orbicella faveolata* indicates holobiont response to coral disease. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Hines:2015:LTE**

- [140] Ellen M. Hines, Samantha Strindberg, Chalatip Junchumpoo, Louisa S. Ponnampalam, Anoukchika D. Ilangakoon, Justine Jackson-Ricketts, and Somchai Monanunsap. Line transect estimates of Irrawaddy dolphin abundance along the eastern Gulf Coast of Thailand. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Meekan:2015:SSB**

- [141] Mark G. Meekan, Lee A. Fuiman, Randall Davis, Yuval Berger, and Michele Thums. Swimming strategy and body plan of the world's largest fish: implications for foraging efficiency and thermoregulation. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Lipcius:2015:ORP**

- [142] Romuald N. Lipcius, Russell P. Burke, Danielle N. McCulloch, Sebastian J. Schreiber, David M. Schulte, Rochelle D. Seitz, and Jian Shen. Overcoming restoration paradigms: value of the historical record and metapopulation dynamics in native oyster restoration. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Timko:2015:DDP**

- [143] Stephen A. Timko, Anastasia Maydanov, Sandra L. Pittelli, Maureen H. Conte, William J. Cooper, Boris P. Koch, Philippe Schmitt-Kopplin, and Michael Gonsior. Depth-dependent photodegradation of marine dissolved organic matter. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Lent:2015:CBI**

- [144] Rebecca J. Lent. Conservation benefits of an interdisciplinary approach to marine mammal science. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**R2C:2015:RCU**

- [145] ReFuGe 2020 Consortium. The ReFuGe 2020 Consortium — using “omics” approaches to explore the adaptability and resilience of coral holobionts to environmental change. *Frontiers in Marine Science*, 2, 2015. ISSN 2296-7745.

**Rakowski:2015:MMD**

- [146] Chrisoulla V. Rakowski, Cedric Magen, Samantha Bosman, Kelsey L. Rogers, Lauren E. Gillies, Jeffrey P. Chanton, and Olivia U. Mason. Methane and microbial dynamics in the Gulf of Mexico water column. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Foster:2015:CSH**

- [147] Sarah Q. Foster and Robinson W. Fulweiler. Corrigendum: Spatial and historic variability of benthic nitrogen cycling in an anthropogenically impacted estuary. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745. See [54].

**Forbes:2015:RPR**

- [148] Keldi Forbes, Peter C. Boxall, Wiktor L. Adamowicz, and Alejandro De Maio Sukic. Recovering Pacific rockfish at risk: the economic valuation of management actions. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Gutierrez:2015:ISS**

- [149] Alexis T. Gutiérrez and Siân K. Morgan. The influence of the Sustainable Seafood Movement in the US and UK capture fisheries supply chain and fisheries governance. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Viviani:2015:VPP**

- [150] Donn A. Viviani, David M. Karl, and Matthew J. Church. Variability in photosynthetic production of dissolved and particulate organic carbon in the North Pacific Subtropical Gyre. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Weber:2015:NBT**

- [151] Matthew A. Weber. Navigating benefit transfer for salmon improvements in the Western US. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Han:2015:CSV**

- [152] Haitao Han, Dawei Pan, Dongyan Liu, Xueping Hu, Mingyue Lin, and Fei Li. Cathodic stripping voltammetric determination of chromium in coastal waters on cubic nano-titanium carbide loaded gold nanoparticles modified electrode. *Frontiers in Marine Science*, 2, September 2015. ISSN 2296-7745.

**Innes:2015:MUI**

- [153] James Innes, Sean Pascoe, Chris Wilcox, Sarah Jennings, and Samantha Paredes. Mitigating undesirable impacts in the marine environment: a review of market-based management measures. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Boyd:2015:TQR**

- [154] Philip W. Boyd. Toward quantifying the response of the oceans' biological pump to climate change. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Gueguen:2015:VDO**

- [155] Céline Guéguen, Motoyo Itoh, Takashi Kikuchi, Jane Eert, and William J. Williams. Variability in dissolved organic matter optical properties in surface waters in the Amerasian Basin. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Macias:2015:PCM**

- [156] Diego M. Macias, Elisa Garcia-Gorriz, and Adolf Stips. Productivity changes in the Mediterranean Sea for the twenty-first century in response

to changes in the regional atmospheric forcing. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Berthelot:2015:ADR**

- [157] Hugo Berthelot, Sophie Bonnet, Mercedes Camps, Olivier Grosso, and Thierry Moutin. Assessment of the dinitrogen released as ammonium and dissolved organic nitrogen by unicellular and filamentous marine diazotrophic cyanobacteria grown in culture. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Hunter:2015:TUL**

- [158] Jonathan E. Hunter, Miguel J. Frada, Helen F. Fredricks, Assaf Vardi, and Benjamin A. S. Van Mooy. Targeted and untargeted lipidomics of *Emiliania huxleyi* viral infection and life cycle phases highlights molecular biomarkers of infection, susceptibility, and ploidy. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Gallop:2015:CTK**

- [159] Shari L. Gallop, Michael Collins, Charitha B. Pattiaratchi, Matthew J. Eliot, Cyprien Bosserelle, Marco Ghisalberti, Lindsay B. Collins, Ian Eliot, Paul L. A. Erftemeijer, Piers Larcombe, Ionan Marigómez, Tanya Stul, and David J. White. Challenges in transferring knowledge between scales in coastal sediment dynamics. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Komoroske:2015:AFB**

- [160] Lisa M. Komoroske and Rebecca L. Lewison. Addressing fisheries bycatch in a changing world. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Wadey:2015:CJF**

- [161] Matthew P. Wadey, Ivan D. Haigh, Robert J. Nicholls, Jennifer M. Brown, Kevin Horsburgh, Ben Carroll, Shari L. Gallop, Travis Mason, and Elizabeth Bradshaw. A comparison of the 31 January–1 February 1953 and 5–6 December 2013 coastal flood events around the UK. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Slagstad:2015:PCS**

- [162] Dag Slagstad, Paul F. J. Wassmann, and Ingrid Ellingsen. Physical constrains [sic] and productivity in the future Arctic Ocean. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Hind:2015:FEI**

- [163] Edward J. Hind, Steven M. Alexander, Stephanie J. Green, Jacob P. Kritzer, Michael J. Sweet, Ayana Elizabeth Johnson, Fabian P. Amargós, Nicola S. Smith, and Angelie M. Peterson. Fostering effective international collaboration for marine science in small island states. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Galgani:2015:MLF**

- [164] François Galgani. Marine litter, future prospects for research. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Reader:2015:MUV**

- [165] Heather E. Reader, Colin A. Stedmon, Nikoline J. Nielsen, and Emma S. Kritzberg. Mass and UV-visible spectral fingerprints of dissolved organic matter: sources and reactivity. *Frontiers in Marine Science*, 2, October 2015. ISSN 2296-7745.

**Tiller:2015:SSB**

- [166] Rachel G. Tiller, Yngve Svaestuen, Pinar Öztürk, and Axel Tidemann. Simulating stakeholder behavior in a marine setting: Integrated coastal zone planning and the influential power of selected stakeholders in Frøya, Norway. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Bisack:2015:UNC**

- [167] Kathryn D. Bisack and Chhandita Das. Understanding non-compliance with protected species regulations in the Northeast USA gillnet fishery. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Yamashita:2015:LAF**

- [168] Youhei Yamashita, Cédric G. Fichot, Yuan Shen, Rudolf Jaffé, and Ronald Benner. Linkages among fluorescent dissolved organic matter, dissolved amino acids and lignin-derived phenols in a river-influenced ocean margin. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Gutowsky:2015:ILV**

- [169] Sarah E. Gutowsky, Marty L. Leonard, Melinda G. Connors, Scott A. Shaffer, and Ian D. Jonsen. Individual-level variation and higher-level interpretations of space use in wide-ranging species: an albatross case study of sampling effects. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Koundouri:2015:BGE**

- [170] Phoebe Koundouri and Amerissa Giannouli. Blue growth and economics. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Foley:2015:UET**

- [171] Melissa M. Foley, Rebecca G. Martone, Michael D. Fox, Carrie V. Kappel, Lindley A. Mease, Ashley L. Erickson, Benjamin S. Halpern, Kimberly A. Selkoe, Peter Taylor, and Courtney Scarborough. Using ecological thresholds to inform resource management: Current options and future possibilities. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Lew:2015:WPT**

- [172] Daniel K. Lew. Willingness to pay for threatened and endangered marine species: a review of the literature and prospects for policy use. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Chan:2015:DDC**

- [173] Vera B. S. Chan, Takashi Toyofuku, George Wetzal, Laxmikant Saraf, Vengatesen Thiyagarajan, and Andrew S. Mount. Direct deposition of crystalline aragonite in the controlled biomineralization of the calcareous tubeworm. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Wunsch:2015:FQY**

- [174] Urban J. Wunsch, Kathleen R. Murphy, and Colin A. Stedmon. Fluorescence quantum yields of natural organic matter and organic compounds: Implications for the fluorescence-based interpretation of organic matter composition. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745. See corrigendum [213].

**Wright:2015:SSM**

- [175] Andrew J. Wright. Sound science: Maintaining numerical and statistical standards in the pursuit of noise exposure criteria for marine mammals. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Hu:2015:CIA**

- [176] Lidan Hu, Xingyue Peng, Jingyan Zhou, Yanmei Zhang, Shanghui Xu, Xiaomei Mao, Yahui Gao, and Junrong Liang. Characterizing the interactions among a dinoflagellate, flagellate and bacteria in the phycosphere of *Alexandrium tamarense* (Dinophyta). *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Speir:2015:UIO**

- [177] Cameron Speir, Sam Pittman, and David Tomberlin. Uncertainty, irreversibility and the optimal timing of large-scale investments in protected species habitat restoration. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Parsons:2015:MCS**

- [178] E. C. M. Parsons, D. A. DellaSala, and A. J. Wright. Is marine conservation science becoming irrelevant to policy makers? *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Rosset:2015:UBS**

- [179] Sabrina Rosset, Cecilia D'Angelo, and Jörg Wiedenmann. Ultrastructural biomarkers in symbiotic algae reflect the availability of dissolved inorganic nutrients and particulate food to the reef coral holobiont. *Frontiers in Marine Science*, 2, November 2015. ISSN 2296-7745.

**Abecasis:2015:MCA**

- [180] Rita C. Abecasis, Pedro Afonso, Ana Colaço, Nancy Longnecker, Julian Clifton, Luisa Schmidt, and Ricardo S. Santos. Marine conservation in the Azores: Evaluating marine protected area development in a remote island context. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Boschen:2015:LUA**

- [181] Rachel E. Boschen, Ashley A. Rowden, Malcolm R. Clark, and Jonathan P. A. Gardner. Limitations in the use of archived vent mussel samples to assess genetic connectivity among seafloor massive sulfide deposits: a case study with implications for environmental management. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Aparicio:2015:MMF**

- [182] Fran L. Aparicio, Mar Nieto-Cid, Encarna Borull, Estela Romero, Colin A. Stedmon, Maria M. Sala, Josep M. Gasol, Aida F. Ríos, and Cèlia Marrasé. Microbially-mediated fluorescent organic matter transformations in the deep ocean. Do the chemical precursors matter? *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Sommer:2015:SSS**

- [183] Anna Sommer, Gilles Reverdin, Nicolas Kolodziejczyk, and Jacqueline Boutin. Sea surface salinity and temperature budgets in the North

Atlantic Subtropical Gyre during SPURS Experiment: August 2012–August 2013. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Goncalves-Araujo:2015:FMW**

- [184] Rafael Gonçalves-Araujo, Colin A. Stedmon, Birgit Heim, Ivan Dubinenkov, Alexandra Kraberg, Denis Moiseev, and Astrid Bracher. From fresh to marine waters: Characterization and fate of dissolved organic matter in the Lena River Delta Region, Siberia. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Garcia-Reyes:2015:UPC**

- [185] Marisol García-Reyes, William J. Sydeman, David S. Schoeman, Ryan R. Rykaczewski, Bryan A. Black, Albertus J. Smit, and Steven J. Bograd. Under pressure: Climate change, upwelling, and eastern boundary upwelling ecosystems. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Takasu:2015:HPC**

- [186] Hiroyuki Takasu and Toshi Nagata. High proline content of bacteria-sized particles in the Western North Pacific and its potential as a new biogeochemical indicator of organic matter diagenesis. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Costa:2015:EMP**

- [187] Monya M. Costa, Isabel Barrote, João Silva, Irene Olivé, Ana Alexandre, Sílvia Albano, and Rui Santos. Epiphytes modulate *Posidonia oceanica* photosynthetic production, energetic balance, antioxidant mechanisms, and oxidative damage. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Graiff:2015:SED**

- [188] Angelika Graiff, Inka Bartsch, Wolfgang Ruth, Martin Wahl, and Ulf Karsten. Season exerts differential effects of ocean acidification and warming on growth and carbon metabolism of the seaweed *Fucus vesiculosus* in the Western Baltic Sea. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.

**Stuhldreier:2015:UIN**

- [189] Ines Stuhldreier, Celeste Sánchez-Noguera, Florian Roth, Jorge Cortés, Tim Rixen, and Christian Wild. Upwelling increases net primary production of corals and reef-wide gross primary production along the Pacific Coast of Costa Rica. *Frontiers in Marine Science*, 2, December 2015. ISSN 2296-7745.



**Chen:2016:TMC**

- [190] Wei-Yu Chen. Toxicokinetic modeling challenges for aquatic nanotoxicology. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Goessling:2016:PPC**

- [191] Johannes W. Goessling, Paulo Cartaxana, and Michael Köhl. Photoprotection in the centric diatom *coscinodiscus granii* is not controlled by chloroplast high-light avoidance movement. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Martin:2016:FDM**

- [192] Summer L. Martin, Kyle S. Van Houtan, T. Todd Jones, Celestino F. Aguon, Jay T. Gutierrez, R. Brent Tibbatts, Shawn B. Wustig, and Jamie D. Bass. Five decades of marine megafauna surveys from Micronesia. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Sun:2016:SHR**

- [193] Luni Sun and Kenneth Mopper. Studies on hydroxyl radical formation and correlated photoflocculation process using degraded wood leachate as a CDOM source. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Nelson:2016:OSD**

- [194] Norman B. Nelson and Julia M. Gauglitz. Optical signatures of dissolved organic matter transformation in the global ocean. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**McConney:2016:FLS**

- [195] Patrick McConney, Lucia Fanning, Robin Mahon, and Bertha Simmons. A first look at the science-policy interface for ocean governance in the wider Caribbean region. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Cui:2016:PPP**

- [196] Yudong Cui, Xin Lin, Huan Zhang, Lingxiao Lin, and Senjie Lin. PhnW–PhnX pathway in dinoflagellates not functional to utilize extracellular phosphonates. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Cole:2016:VME**

- [197] Scott G. Cole and Per-Olav Moksnes. Valuing multiple eelgrass ecosystem services in Sweden: Fish production and uptake of carbon and nitrogen. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Cohen:2016:LEC**

- [198] Itay Cohen, Zvy Dubinsky, and Jonathan Erez. Light enhanced calcification in hermatypic corals: New insights from light spectral responses. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Ni:2016:DIC**

- [199] Tianchi Ni and Qinglu Zeng. Diel infection of cyanobacteria by cyanophages. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Greco:2016:FPS**

- [200] Gaia R. Greco and Marco Cinquegrani. Firms plunge into the sea. Marine biotechnology industry, a first investigation. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Asmala:2016:VRI**

- [201] Eero Asmala, Hermanni Kaartokallio, Jacob Carstensen, and David N. Thomas. Variation in riverine inputs affect dissolved organic matter characteristics throughout the estuarine gradient. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Dapp:2016:MMP**

- [202] Derek R. Dapp, Charlie Huveneers, Terence I. Walker, Michael Drew, and Richard D. Reina. Moving from measuring to predicting bycatch mortality: Predicting the capture condition of a longline-caught pelagic shark. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Osburn:2016:OPT**

- [203] Christopher L. Osburn, Thomas J. Boyd, Michael T. Montgomery, Thomas S. Bianchi, Richard B. Coffin, and Hans W. Paerl. Optical proxies for terrestrial dissolved organic matter in estuaries and coastal waters. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Cooley:2016:CLA**

- [204] Sarah R. Cooley, C. Ryan Ono, Sage Melcer, and Julia Roberson. Community-level actions that can address ocean acidification. *Frontiers in Marine Science*, 2, January 2016. ISSN 2296-7745.

**Poulson-Ellestad:2016:ESS**

- [205] Kelsey L. Poulson-Ellestad, Elizabeth L. Harvey, Matthew D. Johnson, and Tracy J. Mincer. Evidence for strain-specific exometabolomic responses of the coccolithophore *Emiliania huxleyi* to grazing by the di-

noflagellate *Oxyrrhis marina*. *Frontiers in Marine Science*, 3, January 2016. ISSN 2296-7745.

**Lundquist:2016:SSP**

- [206] Carolyn J. Lundquist, Karen T. Fisher, Richard Le Heron, Nick I. Lewis, Joanne I. Ellis, Judi E. Hewitt, Alison J. Greenaway, Katie J. Cartner, Tracey C. Burgess-Jones, David R. Schiel, and Simon F. Thrush. Science and societal partnerships to address cumulative impacts. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Marba:2016:EIC**

- [207] Núria Marbà, Gabriel Jordà, Susana Agustí, and Carlos M. Duarte. Evidences of impacts of climate change on Mediterranean biota. *Frontiers in Marine Science*, 3, January 2016. ISSN 2296-7745.

**Brown:2016:SSA**

- [208] Alexander M. Brown, Lars Bejder, Kenneth H. Pollock, and Simon J. Allen. Site-specific assessments of the abundance of three inshore dolphin species to inform conservation and management. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Foran:2016:RMU**

- [209] Christy M. Foran, Jason S. Link, Wesley S. Patrick, Leah Sharpe, Matthew D. Wood, and Igor Linkov. Relating mandates in the United States for managing the ocean to ecosystem goods and services demonstrates broad but varied coverage. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Steen:2016:EPE**

- [210] Andrew D. Steen, Lauren N. M. Quigley, and Alison Buchan. Evidence for the priming effect in a planktonic estuarine microbial community. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Fichot:2016:PDL**

- [211] Cédric G. Fichot, Ronald Benner, Karl Kaiser, Yuan Shen, Rainer M. W. Amon, Hiroshi Ogawa, and Chia-Jung Lu. Predicting dissolved lignin phenol concentrations in the coastal ocean from Chromophoric Dissolved Organic Matter (CDOM) absorption coefficients. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Ziervogel:2016:LHM**

- [212] Kai Ziervogel, Christopher Osburn, Adeline Brym, Jessica Battles, Samantha Joye, Nigel D'souza, Joseph Montoya, Uta Passow, and Carol

Arnosti. Linking heterotrophic microbial activities with particle characteristics in waters of the Mississippi River Delta in the aftermath of Hurricane Isaac. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Wunsch:2016:CFQ**

- [213] Urban J. Wunsch, Kathleen R. Murphy, and Colin A. Stedmon. Corrigendum: Fluorescence quantum yields of natural organic matter and organic compounds: Implications for the fluorescence-based interpretation of organic matter composition. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745. See [174].

**Chan:2016:FCM**

- [214] Neil C. S. Chan, Daniel Wangpraseurt, Michael Kühl, and Sean R. Connolly. Flow and coral morphology control coral surface pH: Implications for the effects of ocean acidification. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745. See corrigendum [716].

**Kern:2016:WRN**

- [215] Jhommie M. Kern. Wreck removal and the Nairobi Convention — a movement toward a unified framework? *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Sprogis:2016:SSP**

- [216] Kate R. Sprogis, Kenneth H. Pollock, Holly C. Raudino, Simon J. Allen, Anna M. Kopps, Oliver Manlik, Julian A. Tyne, and Lars Bejder. Sex-specific patterns in abundance, temporary emigration and survival of Indo-Pacific bottlenose dolphins (*Tursiops aduncus*) in coastal and estuarine waters. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Arias:2016:CIU**

- [217] Adrian Arias and Robert L. Pressey. Combatting illegal, unreported, and unregulated fishing with information: a case of probable illegal fishing in the tropical Eastern Pacific. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Lucas:2016:BGC**

- [218] Lisa V. Lucas, James E. Cloern, Janet K. Thompson, Mark T. Stacey, and Jeffrey R. Koseff. Bivalve grazing can shape phytoplankton communities. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Degremont:2016:ROI**

- [219] Lionel Dégremont, Benjamin Morga, Suzanne Trancart, and Jean-François Pépin. Resistance to OsHV-1 infection in *Crassostrea gigas* larvae. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Duperron:2016:ESA**

- [220] Sébastien Duperron, Adrien Quiles, Kamil M. Szafranski, Nelly Léger, and Bruce Shillito. Estimating symbiont abundances and gill surface areas in specimens of the hydrothermal vent mussel *Bathymodiolus puteoserpentis* maintained in pressure vessels. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Zheng:2016:SVP**

- [221] Xiaowei Zheng, Xin Dai, and Li Huang. Spatial variations of prokaryotic communities in surface water from Indian Ocean to Chinese marginal seas and their underlining environmental determinants. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Mayer:2016:LLF**

- [222] Danielle Mayer, Zvy Dubinsky, and David Iluz. Light as a limiting factor for epilithic algae in the supralittoral zone of littoral caves. *Frontiers in Marine Science*, 3, February 2016. ISSN 2296-7745.

**Borja:2016:OIA**

- [223] Angel Borja, Michael Elliott, Jesper H. Andersen, Torsten Berg, Jacob Carstensen, Benjamin S. Halpern, Anna-Stiina Heiskanen, Samuli Korpinen, Julia S. Stewart Lowndes, Georg Martin, and Naiara Rodriguez-Ezpeleta. Overview of integrative assessment of marine systems: The ecosystem approach in practice. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Anticamara:2016:STD**

- [224] Jonathan A. Anticamara and Kevin T. B. Go. Spatio-temporal declines in Philippine fisheries and its implications to coastal municipal fishers' catch and income. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Siegel:2016:PEF**

- [225] David A. Siegel, Ken O. Buesseler, Michael J. Behrenfeld, Claudia R. Benitez-Nelson, Emmanuel Boss, Mark A. Brzezinski, Adrian Burd, Craig A. Carlson, Eric A. D'Asaro, Scott C. Doney, Mary J. Perry, Rachel H. R. Stanley, and Deborah K. Steinberg. Prediction of the export and

fate of global ocean net primary production: The EXPORTS science plan. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Gudenauf:2016:CMV**

- [226] Brent M. Gudenauf and Ian Hewson. Comparative metagenomics of viral assemblages inhabiting four phyla of marine invertebrates. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Scott:2016:ACO**

- [227] Geoffrey I. Scott, Dwayne E. Porter, R. Sean Norman, C. Hart Scott, Miguel I. Uyaguari-Diaz, Keith A. Maruya, Steve B. Weisberg, Michael H. Fulton, Ed F. Wirth, Janet Moore, Paul L. Pennington, Daniel Schlenk, George P. Cobb, and Nancy D. Denslow. Antibiotics as CECs: an overview of the hazards posed by antibiotics and antibiotic resistance. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Rankin:2016:FCH**

- [228] Robert W. Rankin, Krista E. Nicholson, Simon J. Allen, Michael Krützen, Lars Bejder, and Kenneth H. Pollock. A full-capture hierarchical Bayesian model of pollock’s closed robust design and application to dolphins. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Lindemann:2016:SLP**

- [229] Christian Lindemann, Øyvind Fiksen, Ken H. Andersen, and Dag L. Aksnes. Scaling laws in phytoplankton nutrient uptake affinity. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Bundy:2016:IBL**

- [230] Randelle M. Bundy, Mingshun Jiang, Melissa Carter, and Katherine A. Barbeau. Iron-binding ligands in the Southern California Current System: Mechanistic studies. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Sundby:2016:NAS**

- [231] Svein Sundby, Kenneth F. Drinkwater, and Olav S. Kjesbu. The North Atlantic spring-bloom system — where the changing climate meets the winter dark. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Mawdsley:2016:STV**

- [232] Robert J. Mawdsley and Ivan D. Haigh. Spatial and temporal variability and long-term trends in skew surges globally. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**McCluskey:2016:DPA**

- [233] Shannon M. McCluskey, Lars Bejder, and Neil R. Loneragan. Dolphin prey availability and calorific value in an estuarine and coastal environment. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**StJohn:2016:DHO**

- [234] Michael A. St. John, Angel Borja, Guillem Chust, Michael Heath, Ivo Grigorov, Patrizio Mariani, Adrian P. Martin, and Ricardo S. Santos. A dark hole in our understanding of marine ecosystems and their services: Perspectives from the mesopelagic community. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Bell:2016:MES**

- [235] James B. Bell, Clare Woulds, Lee E. Brown, Christopher J. Sweeting, William D. K. Reid, Crispin T. S. Little, and Adrian G. Glover. Macrofaunal ecology of sedimented hydrothermal vents in the Bransfield Strait, Antarctica. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Leiknes:2016:EEF**

- [236] Øystein Leiknes, Siv A. Etter, Nils E. Tokle, Maria Bergvik, Olav Vadstein, and Yngvar Olsen. The effect of essential fatty acids for the somatic growth in nauplii of *Calanus finmarchicus*. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Lezama-Ochoa:2016:PPF**

- [237] Nerea Lezama-Ochoa, Hilario Murua, Guillem Chust, Emiel Van Loon, Jon Ruiz, Martin Hall, Pierre Chavance, Alicia Delgado De Molina, and Ernesto Villarino. Present and future potential habitat distribution of *Carcharhinus falciformis* and *Canthidermis maculata* by-catch species in the tropical tuna purse-seine fishery under climate change. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Foster:2016:CSH**

- [238] Sarah Q. Foster and Robinson W. Fulweiler. Corrigendum: Spatial and historic variability of benthic nitrogen cycling in an anthropogenically impacted estuary. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745. See [54].

**Pendleton:2016:MSE**

- [239] Linwood H. Pendleton, Ove Hoegh-Guldberg, Chris Langdon, and Adrien Comte. Multiple stressors and ecological complexity require a

new approach to coral reef research. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Fu:2016:DTG**

- [240] Lee-Lueng Fu. On the decadal trend of global mean sea level and its implication on ocean heat content change. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**MacLeod:2016:SCM**

- [241] Ian D. MacLeod. In-situ corrosion measurements of WWII shipwrecks in Chuuk Lagoon, quantification of decay mechanisms and rates of deterioration. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Cabre:2016:PSP**

- [242] Anna Cabré, David Shields, Irina Marinov, and Tihomir S. Kostadinov. Phenology of size-partitioned phytoplankton carbon-biomass from ocean color remote sensing and CMIP5 models. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Foster:2016:SNO**

- [243] Sarah Q. Foster and Robinson W. Fulweiler. Sediment nitrous oxide fluxes are dominated by uptake in a temperate estuary. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Wolff:2016:ESI**

- [244] Claudia Wolff, Athanasios T. Vafeidis, Daniel Lincke, Christian Marasmi, and Jochen Hinkel. Effects of scale and input data on assessing the future impacts of coastal flooding: an application of DIVA for the Emilia-Romagna Coast. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Serrano:2016:LAC**

- [245] Oscar Serrano, Paul S. Lavery, Lourdes López-Merino, Enric Ballesteros, and Miguel A. Mateo. Location and associated carbon storage of erosional escarpments of seagrass *Posidonia* mats. *Frontiers in Marine Science*, 3, March 2016. ISSN 2296-7745.

**Jaiteh:2016:HAM**

- [246] Vanessa F. Jaiteh, Steve J. Lindfield, Sangeeta Mangubhai, Carol Warren, Ben Fitzpatrick, and Neil R. Loneragan. Higher abundance of marine predators and changes in fishers' behavior following spatial protection within the world's biggest shark fishery. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.



**Baker:2016:TPC**

- [247] Kirralee G. Baker, Charlotte M. Robinson, Dale T. Radford, Allison S. McInnes, Christian Evenhuis, and Martina A. Doblin. Thermal performance curves of functional traits aid understanding of thermally induced changes in diatom-mediated biogeochemical fluxes. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Kujawinski:2016:MCS**

- [248] Elizabeth B. Kujawinski, Krista Longnecker, Katie L. Barott, Ralf J. M. Weber, and Melissa C. Kido Soule. Microbial community structure affects marine dissolved organic matter composition. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Medvedev:2016:TTE**

- [249] Igor P. Medvedev, Alexander B. Rabinovich, and Evgueni A. Kulikov. Tides in three enclosed basins: The Baltic, Black, and Caspian Seas. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**OBrien:2016:IOA**

- [250] Paul A. O'Brien, Kathleen M. Morrow, Bette L. Willis, and David G. Bourne. Implications of ocean acidification for marine microorganisms from the free-living to the host-associated. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Weatherdon:2016:OPI**

- [251] Lauren V. Weatherdon, Alexandre K. Magnan, Alex D. Rogers, U. Rashid Sumaila, and William W. L. Cheung. Observed and projected impacts of climate change on marine fisheries, aquaculture, coastal tourism, and human health: an update. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**LeCozannet:2016:USS**

- [252] Gonéri Le Cozannet, Carlos Oliveros, Bruno Castelle, Manuel Garcin, Déborah Idier, Rodrigo Pedreros, and Jeremy Rohmer. Uncertainties in sandy shorelines evolution under the Bruun Rule assumption. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Martin:2016:ESP**

- [253] Summer L. Martin, Lisa T. Ballance, and Theodore Groves. An ecosystem services perspective for the oceanic eastern tropical Pacific: Commercial fisheries, carbon storage, recreational fishing, and biodiversity. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Vihtakari:2016:VIP**

- [254] Mikko Vihtakari, Jon Havenhand, Paul E. Renaud, and Iris E. Hendriks. Variable individual- and population- level responses to ocean acidification. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Camp:2016:MSB**

- [255] Emma F. Camp, David J. Suggett, Gilberte Gendron, Jamaluddin Jompa, Carrie Manfrino, and David J. Smith. Mangrove and seagrass beds provide different biogeochemical services for corals threatened by climate change. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Schubert:2016:EFS**

- [256] Patrick Schubert, Lena Vogt, Klaus Eder, Torsten Hauffe, and Thomas Wilke. Effects of feed species and HUFA composition on survival and growth of the longsnout seahorse (*Hippocampus reidi*). *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Cory:2016:SDD**

- [257] Rose M. Cory, Timothy W. Davis, Gregory J. Dick, Thomas Johengen, Vincent J. Denef, Michelle A. Berry, Sarah E. Page, Susan B. Watson, Kate Yugas, and George W. Kling. Seasonal dynamics in dissolved organic matter, hydrogen peroxide, and cyanobacterial blooms in Lake Erie. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745. See corrigendum [867].

**Krupke:2016:QSP**

- [258] Andreas Krupke, Laura R. Hmelo, Justin E. Ossolinski, Tracy J. Mincer, and Benjamin A. S. Van Mooy. Quorum sensing plays a complex role in regulating the enzyme hydrolysis activity of microbes associated with sinking particles in the ocean. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Ulm:2016:IBI**

- [259] Marius Ulm, Arne Arns, Thomas Wahl, Steven D. Meyers, Mark E. Luther, and Jürgen Jensen. The impact of a barrier island loss on extreme events in the Tampa Bay. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Vilibic:2016:MAM**

- [260] Ivica Vilibić, Jadranka Šepić, Alexander B. Rabinovich, and Sebastian Monserrat. Modern approaches in meteotsunami research and early warning. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Avendano:2016:IOA**

- [261] Lizeth Avendaño, Martha Gledhill, Eric P. Achterberg, Victoire M. C. Rérolle, and Christian Schlosser. Influence of ocean acidification on the organic complexation of iron and copper in Northwest European Shelf Seas; a combined observational and model study. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Schoening:2016:RRM**

- [262] Timm Schoening, Jonas Osterloff, and Tim W. Nattkemper. RecoMIA — Recommendations for Marine Image Annotation: Lessons learned and future directions. *Frontiers in Marine Science*, 3, April 2016. ISSN 2296-7745.

**Cardenas:2016:FIW**

- [263] Susana A. Cárdenas and Daniel K. Lew. Factors influencing willingness to donate to marine endangered species recovery in the Galápagos National Park, Ecuador. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Bisack:2016:MMS**

- [264] Kathryn D. Bisack and Gisele M. Magnusson. Measuring management success for protected species: Looking beyond biological outcomes. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Poloczanska:2016:RMO**

- [265] Elvira S. Poloczanska, Michael T. Burrows, Christopher J. Brown, Jorge García Molinos, Benjamin S. Halpern, Ove Hoegh-Guldberg, Carrie V. Kappel, Pippa J. Moore, Anthony J. Richardson, David S. Schoeman, and William J. Sydeman. Responses of marine organisms to climate change across oceans. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Rogers:2016:DSV**

- [266] Alice Rogers and Kai Lorenzen. Does slow and variable recovery of *Diadema antillarum* on Caribbean fore-reefs reflect density-dependent habitat selection? *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Theuerkauf:2016:QVH**

- [267] Seth J. Theuerkauf and Romuald N. Lipcius. Quantitative validation of a habitat suitability index for oyster restoration. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Ahonen:2016:LDF**

- [268] Heidi Ahonen, Andrew D. Lowther, Robert G. Harcourt, Simon D. Goldsworthy, Isabelle Charrier, and Adam J. Stow. The limits of dispersal: Fine scale spatial genetic structure in Australian sea lions. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Noble:2016:CAB**

- [269] Monaca Noble, Gregory M. Ruiz, and Kathleen R. Murphy. Chemical assessment of ballast water exchange compliance: Implementation in North America and New Zealand. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Kiron:2016:DBM**

- [270] Viswanath Kiron, Mette Sørensen, Mark Huntley, Ghana K. Vasanth, Yangyang Gong, Dalia Dahle, and Anjana M. Palihawadana. Defatted biomass of the microalga, *Desmodesmus* sp., can replace fishmeal in the feeds for Atlantic salmon. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Lauritano:2016:BSM**

- [271] Chiara Lauritano, Jeanette H. Andersen, Espen Hansen, Marte Albrigtsen, Laura Escalera, Francesco Esposito, Kirsti Helland, Kine Ø. Hanssen, Giovanna Romano, and Adrianna Ianora. Bioactivity screening of microalgae for antioxidant, anti-inflammatory, anticancer, anti-diabetes, and antibacterial activities. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Sorensen:2016:AFF**

- [272] Carlo Sorensen, Niels H. Broge, Mads R. Molgaard, Charlotte S. Schow, Peter Thomsen, Karsten Vognsen, and Per Knudsen. Assessing future flood hazards for adaptation planning in a Northern European coastal community. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Leenhardt:2016:CUT**

- [273] Pierre Leenhardt, Matthew Lauer, Rakamaly Madi Moussa, Sally J. Holbrook, Andrew Rassweiler, Russell J. Schmitt, and Joachim Claudet. Complexities and uncertainties in transitioning small-scale coral reef fisheries. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Ulman:2016:CTR**

- [274] Aylin Ulman, Lily Burke, Edward Hind, Robin Ramdeen, and Dirk Zeller. Conched out: Total reconstructed fisheries catches for the Turks

and Caicos Islands uncover unsustainable resource usage. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Levin:2016:HVM**

- [275] Lisa A. Levin, Amy R. Baco, David A. Bowden, Ana Colaco, Erik E. Cordes, Marina R. Cunha, Amanda W. J. Demopoulos, Judith Gobin, Benjamin M. Grupe, Jennifer Le, Anna Metaxas, Amanda N. Netburn, Greg W. Rouse, Andrew R. Thurber, Verena Tunnicliffe, Cindy Lee Van Dover, Ann Vanreusel, and Les Watling. Hydrothermal vents and methane seeps: Rethinking the sphere of influence. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Queiros:2016:OFT**

- [276] Ana M. Queirós, James A. Strong, Krysia Mazik, Jacob Carstensen, John Bruun, Paul J. Somerfield, Annette Bruhn, Stefano Ciavatta, Eva Flo, Nihayet Bizsel, Murat Özaydinli, Romualda Chuševé, Iñigo Muxika, Henrik Nygård, Nadia Papadopoulou, Maria Pantazi, and Dorte Krause-Jensen. An objective framework to test the quality of candidate indicators of good environmental status. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Humphries:2016:DMD**

- [277] Austin T. Humphries, Suzanne G. Ayvazian, Joanna C. Carey, Boze T. Hancock, Sinead Grabbert, Donald Cobb, Charles J. Strobel, and Robinson W. Fulweiler. Directly measured denitrification reveals oyster aquaculture and restored oyster reefs remove nitrogen at comparable high rates. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Kleint:2016:VIH**

- [278] Charlotte Kleint, Jeffrey A. Hawkes, Sylvia G. Sander, and Andrea Koschinsky. Voltammetric investigation of hydrothermal iron speciation. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Andersen:2016:RAS**

- [279] Ole B. Andersen and Gaia Piccioni. Recent Arctic sea level variations from satellites. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Bright:2016:DPS**

- [280] Allan J. Bright, Caroline S. Rogers, Marilyn E. Brandt, Erinn Muller, and Tyler B. Smith. Disease prevalence and snail predation associated with swell-generated damage on the threatened coral, *Acropora palmata* (Lamarck). *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Semeniuk:2016:USB**

- [281] David M. Semeniuk, Randelle M. Bundy, Anna M. Posacka, Marie Robert, Katherine A. Barbeau, and Maria T. Maldonado. Using  $^{67}\text{Cu}$  to study the biogeochemical cycling of copper in the Northeast Subarctic Pacific Ocean. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Oczkowski:2016:EAN**

- [282] Autumn Oczkowski, Thomas Gumbley, Bobbi Carter, Ruth Carmichael, and Austin Humphries. Establishing an anthropogenic nitrogen baseline using Native American shell middens. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Delgado:2016:ADS**

- [283] James P. Delgado, Lisa C. Symons, Kelley Elliott, Frank Cantelas, and Robert V. Schwemmer. Assessment of the deep sea wreck USS Independence. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Shukla:2016:CRS**

- [284] Pushp S. Shukla, Tudor Borza, Alan T. Critchley, and Balakrishnan Prithiviraj. Carrageenans from red seaweeds as promoters of growth and elicitors of defense response in plants. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Bonnain:2016:FHH**

- [285] Chelsea Bonnain, Mya Breitbart, and Kristen N. Buck. The Ferrojan Horse Hypothesis: Iron–virus interactions in the ocean. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Jutur:2016:ADM**

- [286] Pannaga P. Jutur, Asha A. Nesamma, and Kashif M. Shaikh. Algae-derived marine oligosaccharides and their biological applications. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Gerringa:2016:FBD**

- [287] Loes J. A. Gerringa, Micha J. A. Rijkenberg, Johann Bown, Andrew R. Margolin, Patrick Laan, and Hein J. W. de Baar. Fe-binding dissolved organic ligands in the oxic and suboxic waters of the Black Sea. *Frontiers in Marine Science*, 3, May 2016. ISSN 2296-7745.

**Lu:2016:STD**

- [288] Chia-Jung Lu, Ronald Benner, Cédric G. Fichot, Hideki Fukuda, Youhei Yamashita, and Hiroshi Ogawa. Sources and transformations of dissolved

lignin phenols and chromophoric dissolved organic matter in Otsuchi Bay, Japan. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Bruge:2016:TNT**

- [289] Antoine Bruge, Paula Alvarez, Almudena Fontán, Unai Cotano, and Guillem Chust. Thermal niche tracking and future distribution of Atlantic mackerel spawning in response to ocean warming. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Brakes:2016:MMB**

- [290] Philippa Brakes and Sasha R. X. Dall. Marine mammal behavior: a review of conservation implications. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Beiras:2016:AES**

- [291] Ricardo Beiras. Assessing ecological status of transitional and coastal waters; current difficulties and alternative approaches. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Liu:2016:EDS**

- [292] Hongbin Liu, Mianrun Chen, Feng Zhu, and Paul J. Harrison. Effect of diatom silica content on copepod grazing, growth and reproduction. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Lonborg:2016:DDR**

- [293] Christian Lønborg, L. Antonio Cuevas, Thomas Reinthaler, Gerhard J. Herndl, Josep M. Gasol, Xosé Anxelu G. Morán, Nicholas R. Bates, and Xosé A. Álvarez-Salgado. Depth dependent relationships between temperature and ocean heterotrophic prokaryotic production. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745. See corrigendum [583].

**Sinniger:2016:WAS**

- [294] Frédéric Sinniger, Jan Pawlowski, Saki Harii, Andrew J. Gooday, Hiroyuki Yamamoto, Pierre Chevaldonné, Tomas Cedhagen, Gary Carvalho, and Simon Creer. Worldwide analysis of sedimentary DNA reveals major gaps in taxonomic knowledge of deep-sea benthos. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Koenigstein:2016:SIE**

- [295] Stefan Koenigstein, Matthias Ruth, and Stefan Gößling-Reisemann. Stakeholder-informed ecosystem modeling of ocean warming and acidification impacts in the Barents Sea region. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Xavier:2016:FCS**

- [296] José C. Xavier, Angelika Brandt, Yan Ropert-Coudert, Renuka Badhe, Julian Gutt, Charlotte Havermans, Christopher Jones, Erli S. Costa, Karin Lochte, Irene R. Schloss, Mahlon C. Kennicutt, and William J. Sutherland. Future challenges in Southern Ocean ecology research. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Rusu:2016:RAN**

- [297] Eugen Rusu. Reliability and applications of the numerical wave predictions in the Black Sea. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Aylagas:2016:BDM**

- [298] Eva Aylagas, Ángel Borja, Xabier Irigoien, and Naiara Rodríguez-Ezpeleta. Benchmarking DNA metabarcoding for biodiversity-based monitoring and assessment. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Ventikos:2016:EDM**

- [299] Nikolaos P. Ventikos, Konstantinos Louzis, Alexandros Koimtzooglou, and Pantelis Delikanidis. Enhanced decision making through probabilistic shipwreck risk assessment: Focusing on the situation in Greece. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Hoyt:2016:BRC**

- [300] Erich Hoyt. Book review: *The Cultural Lives of Whales and Dolphins*. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Su:2016:DSD**

- [301] Han Su, Rujun Yang, Ivanka Pižeta, Dario Omanović, Shirong Wang, and Yan Li. Distribution and speciation of dissolved iron in Jiaozhou Bay (Yellow Sea, China). *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Sultana:2016:RSC**

- [302] Rumana Sultana, Beatriz E. Casareto, Rumi Sohrin, Toshiyuki Suzuki, Md. Shafiqul Alam, Hiroyuki Fujimura, and Yoshimi Suzuki. Response of subtropical coastal sediment systems of Okinawa, Japan, to experimental warming and high pCO<sub>2</sub>. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.



**Berdej:2016:BBC**

- [303] Samantha Berdej and Derek Armitage. Bridging for better conservation fit in Indonesia's coastal-marine systems. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Butler-Stroud:2016:WDJ**

- [304] Christopher Butler-Stroud. What drives Japanese whaling policy? *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Favaro:2016:YSC**

- [305] Brett Favaro, Samantha Oester, John A. Cigliano, Leslie A. Cornick, Edward J. Hind, E. C. M. Parsons, and Tracey J. Woodbury. Your science conference should have a code of conduct. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Shibl:2016:DPE**

- [306] Ahmed A. Shibl, Mohamed F. Haroon, David K. Ngugi, Luke R. Thompson, and Ulrich Stingl. Distribution of *Prochlorococcus* ecotypes in the Red Sea Basin based on analyses of *rpoC1* sequences. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Gaichas:2016:FIS**

- [307] Sarah K. Gaichas, Richard J. Seagraves, Jessica M. Coakley, Geret S. DePiper, Vincent G. Guida, Jonathan A. Hare, Paul J. Rago, and Michael J. Wilberg. A framework for incorporating species, fleet, habitat, and climate interactions into fishery management. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Chartrand:2016:LTP**

- [308] Kathryn M. Chartrand, Catherine V. Bryant, Alex B. Carter, Peter J. Ralph, and Michael A. Rasheed. Light thresholds to prevent dredging impacts on the Great Barrier Reef seagrass, *Zostera muelleri* ssp. *capricorni*. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Chen:2016:TRO**

- [309] Wei-Jen Chen, Hsuan-Ching Ho, and Philippe Borsa. Taiwanese records of oblong large-eye seabream *Gymnocranius oblongus* (Teleostei: Lethrinidae) and other rare or undetermined large-eye seabreams. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Olafsdottir:2016:DEM**

- [310] Droplaug Olafsdottir, Brian R. MacKenzie, Valérie Chosson-P, and Thorey Ingimundardottir. Dietary evidence of mesopelagic and pelagic

foraging by Atlantic bluefin tuna (*Thunnus thynnus* L.) during autumn migrations to the Iceland Basin. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Rokitta:2016:PDT**

- [311] Sebastian D. Rokitta, Peter von Dassow, Björn Rost, and Uwe John. P- and N-depletion trigger similar cellular responses to promote senescence in eukaryotic phytoplankton. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Vail:2016:OII**

- [312] Courtney S. Vail. An overview of increasing incidents of bottlenose dolphin harassment in the Gulf of Mexico and possible solutions. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Hoikkala:2016:ADO**

- [313] Laura Hoikkala, Helen Tammert, Risto Lignell, Eeva Eronen-Rasimus, Kristian Spilling, and Veljo Kisand. Autochthonous dissolved organic matter drives bacterial community composition during a bloom of filamentous cyanobacteria. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Davies:2016:TPS**

- [314] Sarah W. Davies, Adrian Marchetti, Justin B. Ries, and Karl D. Castillo. Thermal and pCO<sub>2</sub> stress elicit divergent transcriptomic responses in a resilient coral. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Feist:2016:NIA**

- [315] Blake E. Feist and Phillip S. Levin. Novel indicators of anthropogenic influence on marine and coastal ecosystems. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Neu:2016:DOI**

- [316] Vania Neu, Nicholas D. Ward, Alex V. Krusche, and Christopher Neill. Dissolved organic and inorganic carbon flow paths in an Amazonian transitional forest. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Smith:2016:PSF**

- [317] Tyler B. Smith, Viktor W. Brandtneris, Miguel Canals, Marilyn E. Brandt, Justin Martens, Robert S. Brewer, Elizabeth Kadison, Matthew Kammann, Jessica Keller, and Daniel M. Holstein. Potential structuring

forces on a shelf edge upper mesophotic coral ecosystem in the US Virgin Islands. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Sutton:2016:FIC**

- [318] Abigail M. Sutton and Murray A. Rudd. Factors influencing community fishers' leadership engagement in international small-scale fisheries. *Frontiers in Marine Science*, 3, June 2016. ISSN 2296-7745.

**Schijf:2016:DSR**

- [319] Johan Schijf and Shannon M. Burns. Determination of the side-reaction coefficient of desferrioxamine B in trace-metal-free seawater. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Damodararao:2016:LMS**

- [320] Karri Damodararao, Sunil K. Singh, Vinai K. Rai, V. Ramaswamy, and P. S. Rao. Lithology, monsoon and sea-surface current control on provenance, dispersal and deposition of sediments over the Andaman Continental Shelf. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Waska:2016:FCC**

- [321] Hannelore Waska, Andrea Koschinsky, and Thorsten Dittmar. Fe- and Cu-complex formation with artificial ligands investigated by ultra-high resolution Fourier-Transform ion Cyclotron Resonance Mass Spectrometry (FT-ICR-MS): Implications for natural metal-organic complex studies. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Gorris:2016:DRC**

- [322] Philipp Gorris. Deconstructing the reality of community-based management of marine resources in a small island context in Indonesia. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Fisher:2016:JST**

- [323] Sue Fisher. Japanese small type coastal whaling. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Martinetto:2016:CBH**

- [324] Paulina Martinetto, Diana I. Montemayor, Juan Alberti, César S. B. Costa, and Oscar Iribarne. Crab bioturbation and herbivory may account for variability in carbon sequestration and stocks in South West Atlantic salt marshes. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**LeChevanton:2016:ENL**

- [325] Myriam Le Chevanton, Matthieu Garnier, Ewa Lukomska, Nathalie Schreiber, Jean-Paul Cadoret, Bruno Saint-Jean, and Gaël Bougaran. Effects of nitrogen limitation on *Dunaliella* sp. *Alteromonas* sp. interactions: From mutualistic to competitive relationships. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Armoza-Zvuloni:2016:RHP**

- [326] Rachel Armoza-Zvuloni, Avi Schneider, and Yeala Shaked. Rapid hydrogen peroxide release during coral-bacteria interactions. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Hunicke:2016:SAA**

- [327] Birgit Hünicke and Eduardo Zorita. Statistical analysis of the acceleration of Baltic mean sea-level rise, 1900–2012. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Krekoukiotis:2016:ARE**

- [328] Dionysis Krekoukiotis, Artur Piotr Palacz, and Michael A. St. John. Assessing the role of environmental factors on Baltic cod recruitment, a complex adaptive system emergent property. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Rahav:2016:IAD**

- [329] Eyal Rahav, Adina Paytan, Chia-Te Chien, Galit Ovardia, Timor Katz, and Barak Herut. The impact of atmospheric dry deposition associated microbes on the Southeastern Mediterranean Sea surface water following an intense dust storm. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Brillet-Viel:2016:OGB**

- [330] Anne Brillet-Viel, Marie-France Pilet, Philippe Courcoux, Hervé Prévost, and Françoise Leroi. Optimization of growth and bacteriocin activity of the food bioprotective *Carnobacterium divergens* V41 in an animal origin protein free medium. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Menshova:2016:FBA**

- [331] Roza V. Menshova, Natalia M. Shevchenko, Tatiana I. Imbs, Tatiana N. Zvyagintseva, Olesya S. Malyarenko, Tatyana S. Zaporoshets, Natalia N. Besednova, and Svetlana P. Ermakova. Fucoidans from brown alga *Fucus evanescens*: Structure and biological activity. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Frey:2016:TIS**

- [332] Joachim Frey and Francesco C. Origi. Type III secretion system of *Aeromonas salmonicida* undermining the host's immune response. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Wichard:2016:IMO**

- [333] Thomas Wichard. Identification of metallophores and organic ligands in the chemosphere of the marine macroalga *Ulva* (Chlorophyta) and at land-sea interfaces. *Frontiers in Marine Science*, 3, July 2016. ISSN 2296-7745.

**Heller:2016:ISS**

- [334] Maija I. Heller, Kathrin Wuttig, and Peter L. Croot. Identifying the sources and sinks of CDOM/FDOM across the Mauritanian Shelf and their potential role in the decomposition of superoxide ( $O_2^{\cdot-}$ ). *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Krom:2016:REM**

- [335] Michael D. Krom, Zongbo Shi, Anthony Stockdale, Ilana Berman-Frank, Antonia Giannakourou, Barak Herut, Anna Lagaria, Nafsika Papageorgiou, Paraskevi Pitta, Stella Psarra, Eyal Rahav, Michael Scoullou, Eleni Stathopoulou, Anastasia Tsiola, and Tatiana M. Tsagaraki. Response of the Eastern Mediterranean microbial ecosystem to dust and dust affected by acid processing in the atmosphere. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Miller:2016:IIC**

- [336] Christopher J. Miller, Andrew L. Rose, and T. David Waite. Importance of iron complexation for Fenton-mediated hydroxyl radical production at circumneutral pH. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Thornton:2016:PCE**

- [337] Daniel C. O. Thornton, Sarah D. Brooks, and Jie Chen. Protein and carbohydrate exopolymer particles in the Sea Surface Microlayer (SML). *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Sanders:2016:COM**

- [338] Richard J. Sanders, Stephanie A. Henson, Adrian P. Martin, Tom R. Anderson, Raffaele Bernardello, Peter Enderlein, Sophie Fielding, Sarah L. C. Giering, Manuela Hartmann, Morten Iversen, Samar Khatiwala, Phyllis Lam, Richard Lampitt, Daniel J. Mayor, Mark C. Moore, Eugene Murphy, Stuart C. Painter, Alex J. Poulton, Kevin Saw, Gabriele

Stowasser, Geraint A. Tarling, Sinhue Torres-Valdes, Mark Trimmer, George A. Wolff, Andrew Yool, and Mike Zubkov. Controls over Ocean Mesopelagic Interior Carbon Storage (COMICS): Fieldwork, synthesis, and modeling efforts. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Kraus:2016:RSP**

- [339] Scott D. Kraus, Robert D. Kenney, Charles A. Mayo, William A. McLellan, Michael J. Moore, and Douglas P. Nowacek. Recent scientific publications cast doubt on North Atlantic right whale future. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Abelson:2016:RHF**

- [340] Avigdor Abelson, Uri Obolski, Patrick Regoniel, and Lilach Hadany. Restocking herbivorous fish populations as a social-ecological restoration tool in coral reefs. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Turner:2016:TQC**

- [341] David R. Turner, Eric P. Achterberg, Chen-Tung A. Chen, Simon L. Clegg, Vanessa Hatje, Maria T. Maldonado, Sylvia G. Sander, Constant M. G. van den Berg, and Mona Wells. Toward a quality-controlled and accessible Pitzer model for seawater and related systems. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Bastos:2016:IMO**

- [342] Luísa Bastos, Ana Bio, and Isabel Iglesias. The importance of marine observatories and of RAlA in particular. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Callaway:2016:HDR**

- [343] Ruth Callaway. Historical data reveal 30-year persistence of benthic fauna associations in heavily modified waterbody. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Nunny:2016:DSL**

- [344] Laetitia Nunny, Fritha Langford, and Mark P. Simmonds. Does the seal licensing system in Scotland have a negative impact on seal welfare? *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Pranovi:2016:ISS**

- [345] Fabio Pranovi, Marco Anelli Monti, Daniele Brigolin, and Matteo Zucchetta. The influence of the spatial scale on the fishery landings-SST

relationship. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Smith:2016:MME**

- [346] Christopher J. Smith, Konstantia-Nadia Papadopoulou, Steve Barnard, Krysia Mazik, Michael Elliott, Joana Patrício, Oihana Solaun, Sally Little, Natasha Bhatia, and Angel Borja. Managing the marine environment, conceptual models and assessment considerations for the European Marine Strategy Framework Directive. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Jakobs:2016:BAI**

- [347] Gunnar Jakobs, Matthias Labrenz, Gregor Rehder, Susanna Hietanen, Katrin Kießlich, Angela Vogts, Martin Blumenberg, and Oliver Schmale. A bioreactor approach to investigate the linkage between methane oxidation and nitrate/nitrite reduction in the pelagic oxic-anoxic transition zone of the Central Baltic Sea. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Ghosh:2016:CPN**

- [348] Tonmoy Ghosh, Khushbu Bhayani, Chetan Paliwal, Rahulkumar Maurya, Kaumeel Chokshi, Imran Pancha, and Sandhya Mishra. Cyanobacterial pigments as natural anti-hyperglycemic agents: an in vitro study. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Ferrera:2016:EAH**

- [349] Isabel Ferrera, Caterina R. Giner, Albert Reñé, Jordi Camp, Ramon Massana, Josep M. Gasol, and Esther Garcés. Evaluation of alternative high-throughput sequencing methodologies for the monitoring of marine picoplanktonic biodiversity based on rRNA gene amplicons. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Fraune:2016:UNV**

- [350] Sebastian Fraune, Sylvain Forêt, and Adam M. Reitzel. Using *Nematostella vectensis* to study the interactions between genome, epigenome, and bacteria in a changing environment. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Butterworth:2016:RWI**

- [351] Andy Butterworth. A review of the welfare impact on pinnipeds of plastic marine debris. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Bulmer:2016:CNS**

- [352] Richard H. Bulmer, Luitgard Schwendenmann, and Carolyn J. Lundquist. Carbon and nitrogen stocks and below-ground allometry in temperate mangroves. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Kelly:2016:EPN**

- [353] Lisa A. Kelly, Tom Heintz, Joleah B. Lamb, Tracy D. Ainsworth, and Bette L. Willis. Ecology and pathology of novel plaque-like growth anomalies affecting a reef-building coral on the Great Barrier Reef. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Khalfallah:2016:RDM**

- [354] Myriam Khalfallah, Kyrstn Zylich, Dirk Zeller, and Daniel Pauly. Reconstruction of domestic marine fisheries catches for Oman (1950–2015). *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Korpinen:2016:GRC**

- [355] Samuli Korpinen and Jesper H. Andersen. A global review of cumulative pressure and impact assessments in marine environments. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Galanidi:2016:PCP**

- [356] Marika Galanidi, Gokhan Kaboglu, and Kemal C. Bizsel. Predicting the composition of polychaete assemblages in the Aegean Coast of Turkey. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Laiolo:2016:KDS**

- [357] Leonardo Laiolo, Allison S. McInnes, Richard Matear, and Martina A. Doblin. Key drivers of seasonal plankton dynamics in cyclonic and anti-cyclonic eddies off East Australia. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Slagter:2016:PVP**

- [358] Hans A. Slagter, Loes J. A. Gerringa, and Corina P. D. Brussaard. Phytoplankton virus production negatively affected by iron limitation. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Wilson:2016:SMC**

- [359] Robert J. Wilson, Michael R. Heath, and Douglas C. Speirs. Spatial modeling of *Calanus finmarchicus* and *Calanus helgolandicus*: Parameter differences explain differences in biogeography. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.



**Wright:2016:IWC**

- [360] Andrew J. Wright, Mark P. Simmonds, and Barbara Galletti Vernazzani. The International Whaling Commission — beyond whaling. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Uusitalo:2016:IBA**

- [361] Laura Uusitalo, Hugues Blanchet, Jesper H. Andersen, Olivier Beauchard, Torsten Berg, Silvia Bianchelli, Annalucia Cantafaro, Jacob Carstensen, Laura Carugati, Sabine Cochrane, Roberto Danovaro, Anna-Stiina Heiskanen, Ville Karvinen, Snejana Moncheva, Ciaran Murray, João M. Neto, Henrik Nygård, Maria Pantazi, Nadia Papadopoulou, Nomiki Simboura, Greta Srébaliené, Maria C. Uyarra, and Angel Borja. Indicator-based assessment of marine biological diversity — lessons from 10 case studies across the European Seas. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Maat:2016:CPL**

- [362] Douwe S. Maat, Reinhoud de Blok, and Corina P. D. Brussaard. Combined phosphorus limitation and light stress prevent viral proliferation in the phytoplankton species *Phaeocystis globosa*, but not in *Micromonas pusilla*. *Frontiers in Marine Science*, 3, August 2016. ISSN 2296-7745.

**Patricio:2016:EMB**

- [363] Joana Patrício, Sally Little, Krysia Mazik, Konstantia-Nadia Papadopoulou, Christopher J. Smith, Heliana Teixeira, Helene Hoffmann, Maria C. Uyarra, Oihana Solaun, Argyro Zenetos, Gokhan Kaboglu, Olga Kryvenko, Tanya Churilova, Snejana Moncheva, Martynas Bučas, Angel Borja, Nicolas Hoepffner, and Michael Elliott. European marine biodiversity monitoring networks: Strengths, weaknesses, opportunities and threats. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Kaimuddin:2016:FSC**

- [364] Awaluddin H. Kaimuddin, Raymond Laë, and Luis Tito De Morais. Fish species in a changing world: The route and timing of species migration between tropical and temperate ecosystems in Eastern Atlantic. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Cosentino:2016:UAB**

- [365] A. Mel Cosentino and Sue Fisher. The utilization of aquatic bushmeat from small cetaceans and manatees in South America and West Africa. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Stawiarski:2016:PRP**

- [366] Beate Stawiarski, Erik T. Buitenhuis, and Corinne Le Quéré. The physiological response of picophytoplankton to temperature and its model representation. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Flynn:2016:WPM**

- [367] Kevin J. Flynn and Aditee Mitra. Why plankton modelers should reconsider using rectangular hyperbolic (Michaelis-Menten, Monod) descriptions of predator–prey interactions. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Okuyama:2016:FSM**

- [368] Junichi Okuyama, Jeffrey A. Seminoff, Peter H. Dutton, and Scott R. Benson. Fine-scale monitoring of routine deep dives by gravid leatherback turtles during the internesting interval indicate a capital breeding strategy. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Johnson:2016:CMH**

- [369] Christopher M. Johnson, Lynnath E. Beckley, Halina Kobryn, Genevieve E. Johnson, Iain Kerr, and Roger Payne. Crowdsourcing modern and historical data identifies sperm whale (*Physeter macrocephalus*) habitat offshore of South-Western Australia. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Mea:2016:SPS**

- [370] Marianna Mea, Alice Newton, Maria C. Uyarra, Carolina Alonso, and Angel Borja. From science to policy and society: Enhancing the effectiveness of communication. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Dietl:2016:MAR**

- [371] Gregory P. Dietl, Stephen R. Durham, Jansen A. Smith, and Annalee Tweitmann. Mollusk assemblages as records of past and present ecological status. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Guo:2016:SMC**

- [372] Cui Guo, Xiaomin Xia, Paraskevi Pitta, Barak Herut, Eyal Rahav, Ilana Berman-Frank, Antonia Giannakourou, Anastasia Tsiola, Tatiana M. Tsagaraki, and Hongbin Liu. Shifts in microbial community structure and activity in the ultra-oligotrophic Eastern Mediterranean Sea driven

by the deposition of Saharan dust and European aerosols. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Al-Aqeel:2016:TPS**

- [373] Sarah Al-Aqeel, Taewoo Ryu, Huoming Zhang, Kondethimmanahalli H. Chandramouli, and Timothy Ravasi. Transcriptome and proteome studies reveal candidate attachment genes during the development of the barnacle *amphibalanus amphitrite*. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Velasquez:2016:FSD**

- [374] Imelda B. Velasquez, Enitan Ibisanni, Elizabeth W. Maas, Philip W. Boyd, Scott Nodder, and Sylvia G. Sander. Ferrioxamine siderophores detected amongst iron binding ligands produced during the remineralization of marine particles. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Cermeño:2016:MPP**

- [375] Pedro Cermeño, Paloma Chouciño, Bieito Fernández-Castro, Francisco G. Figueiras, Emilio Maraño, Cèlia Marrasé, Beatriz Mouriño-Carballido, María Pérez-Lorenzo, Tamara Rodríguez-Ramos, Isabel G. Teixeira, and Sergio M. Vallina. Marine primary productivity is driven by a selection effect. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Cigliano:2016:KAQ**

- [376] John A. Cigliano, Amy Bauer, Megan M. Draheim, Melissa M. Foley, Carolyn J. Lundquist, Julie-Beth McCarthy, Katheryn W. Patterson, Andrew J. Wright, and E. C. M. Parsons. The Kraken in the aquarium: Questions that urgently need to be addressed in order to advance marine conservation. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Borja:2016:BGB**

- [377] Angel Borja, Michael Elliott, Paul V. R. Snelgrove, Melanie C. Austen, Torsten Berg, Sabine Cochrane, Jacob Carstensen, Roberto Danovaro, Simon Greenstreet, Anna-Stiina Heiskanen, Christopher P. Lynam, Marianna Mea, Alice Newton, Joana Patrício, Laura Uusitalo, María C. Uyarra, and Christian Wilson. Bridging the gap between policy and science in assessing the health status of marine ecosystems. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Steinhardt:2016:ALL**

- [378] Juliane Steinhardt, Paul G. Butler, Michael L. Carroll, and John Hartley. The application of long-lived bivalve sclerochronology in environmental baseline monitoring. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Patricio:2016:DTD**

- [379] Joana Patrício, Michael Elliott, Krysia Mazik, Konstantia-Nadia Papadopoulou, and Christopher J. Smith. DPSIR — two decades of trying to develop a unifying framework for marine environmental management? *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**deBoer:2016:UPC**

- [380] Marijke N. de Boer, James T. Saulino, Koen Van Waerebeek, and Geert Aarts. Under pressure: Cetaceans and fisheries co-occurrence off the coasts of Ghana and Côte d'Ivoire (Gulf of Guinea). *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Tortolero-Langarica:2016:DGC**

- [381] José de Jesús A. Tortolero-Langarica, Amílcar L. Cupul-Magaña, Juan. P. Carricart-Ganivet, Anderson B. Mayfield, and Alma P. Rodríguez-Troncoso. Differences in growth and calcification rates in the reef-building coral *Porites lobata*: The implications of morphotype and gender on coral growth. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Rahav:2016:EIA**

- [382] Eyal Rahav, Cheung Shun-Yan, Guo Cui, Hongbin Liu, Tatiana M. Tsagaraki, Antonia Giannakourou, Anastasia Tsiola, Stella Psarra, Anna Lagaria, Margaret R. Mulholland, Eleni Stathopoulou, Pitta Paraskevi, Barak Herut, and Ilana Berman-Frank. Evaluating the impact of atmospheric depositions on springtime dinitrogen fixation in the Cretan Sea (Eastern Mediterranean) — a mesocosm approach. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Courtney:2016:CCC**

- [383] Travis A. Courtney, Andreas J. Andersson, Nicholas R. Bates, Andrew Collins, Tyler Cyronak, Samantha J. de Putron, Bradley D. Eyre, Rebecca Garley, Eric J. Hochberg, Rodney Johnson, Sylvia Musielewicz, Tim J. Noyes, Christopher L. Sabine, Adrienne J. Sutton, Jessy Toinin, and Aline Tribollet. Comparing chemistry and census-based estimates of net ecosystem calcification on a rim reef in Bermuda. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Lynam:2016:UIM**

- [384] Christopher P. Lynam, Laura Uusitalo, Joana Patrício, Chiara Piroddi, Ana M. Queirós, Heliana Teixeira, Axel G. Rossberg, Yolanda Sagarmínaga, Kieran Hyder, Nathalie Niquil, Christian Möllmann, Christian Wilson, Guillem Chust, Ibon Galparsoro, Rodney Forster, Helena Veríssimo, Letizia Tedesco, Marta Revilla, and Suzanna Neville. Uses of innovative modeling tools within the implementation of the Marine Strategy Framework Directive. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Wallmo:2016:EEP**

- [385] Kristy Wallmo, Kathryn D. Bisack, Daniel K. Lew, and Dale E. Squires. Editorial: The economics of protected marine species: Concepts in research and management. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Heiskanen:2016:BME**

- [386] Anna-Stiina Heiskanen, Torsten Berg, Laura Uusitalo, Heliana Teixeira, Annette Bruhn, Dorte Krause-Jensen, Christopher P. Lynam, Axel G. Rossberg, Samuli Korpinen, Maria C. Uyarra, and Angel Borja. Biodiversity in marine ecosystems — European developments toward robust assessments. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Dufour:2016:IIP**

- [387] Karolane Dufour, Frédéric Maps, Stéphane Plourde, Pierre Joly, and Frédéric Cyr. Impacts of intraguild predation on Arctic copepod communities. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Pitcher:2016:SPS**

- [388] Grant C. Pitcher and Trevor A. Probyn. Suffocating phytoplankton, suffocating waters — Red Tides and anoxia. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Andrade:2016:HFN**

- [389] Hector Andrade, Jean-Charles Massabuau, Sabine Cochrane, Pierre Ciret, Damien Tran, Mohamedou Sow, and Lionel Camus. High Frequency Non-invasive (HFNI) bio-sensors as a potential tool for marine monitoring and assessments. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Hagan:2016:ODU**

- [390] Kristin Hagan and Samantha Williams. Oceans of discourses: Utilizing Q methodology for analyzing perceptions on marine biodiversity conser-

vation in the Kogelberg Biosphere Reserve, South Africa. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Kitolelei:2016:APK**

- [391] Jokim V. Kitolelei and Tetsu Sato. Analysis of perceptions and knowledge in managing coastal resources: a case study in Fiji. *Frontiers in Marine Science*, 3, September 2016. ISSN 2296-7745.

**Fritz:2016:CTM**

- [392] Jan-Stefan Fritz. Commentary: Threatened by mining, polymetallic nodules are required to preserve abyssal epifauna. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Paulsen:2016:SAG**

- [393] Maria L. Paulsen, Hugo Doré, Laurence Garczarek, Lena Seuthe, Oliver Müller, Ruth-Anne Sandaa, Gunnar Bratbak, and Aud Larsen. *Synechococcus* in the Atlantic Gateway to the Arctic Ocean. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Borger:2016:ACB**

- [394] Tobias Börger, Stefanie Broszeit, Heini Ahtiainen, Jonathan P. Atkins, Daryl Burdon, Tiziana Luisetti, Arantza Murillas, Soile Oinonen, Lucille Paltriguera, Louise Roberts, Maria C. Uyerra, and Melanie C. Austen. Assessing costs and benefits of measures to achieve good environmental status in European regional seas: Challenges, opportunities, and lessons learnt. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Parsons:2016:WIS**

- [395] E. C. M. Parsons. Why IUCN should replace “Data deficient” conservation status with a precautionary “Assume threatened” status — a cetacean case study. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Atkins:2016:SMM**

- [396] J. Ffion Atkins, Coleen L. Moloney, Trevor A. Probyn, and Stewart Bernard. In situ measurements and model estimates of  $\text{NO}_3$  and  $\text{NH}_4$  uptake by different phytoplankton size fractions in the Southern Benguela Upwelling System. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Einbinder:2016:NAP**

- [397] Shai Einbinder, David F. Gruber, Eitan Salomon, Oded Liran, Nir Keren, and Dan Tchernov. Novel adaptive photosynthetic characteristics of mesophotic symbiotic microalgae within the reef-building coral,

*Stylophora pistillata*. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Gauthier:2016:DGS**

- [398] Marie-Emilie A. Gauthier, Jabin R. Watson, and Sandie M. Degnan. Draft genomes shed light on the dual bacterial symbiosis that dominates the microbiome of the coral reef sponge *Amphimedon queenslandica*. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Zoysa:2016:PLS**

- [399] Rapti Siriwardane de Zoysa and Anna-Katharina Hornidge. Putting life-worlds at sea: Studying meaning-making in marine research. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Shen:2016:SDD**

- [400] Yuan Shen, Ronald Benner, Lisa L. Robbins, and Jonathan G. Wynn. Sources, distributions, and dynamics of dissolved organic matter in the Canada and Makarov Basins. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Li:2016:BHA**

- [401] Chunyan Li and Quanan Zheng. Breakdown of hydrostatic assumption in tidal channel with scour holes. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Poll:2016:AAD**

- [402] Willem H. van De Poll, Douwe S. Maat, Philipp Fischer, Patrick D. Rozema, Oonagh B. Daly, Sebastiaan Koppelle, Ronald J. W. Visser, and Anita G. J. Buma. Atlantic advection driven changes in glacial meltwater: Effects on phytoplankton chlorophyll-a and taxonomic composition in Kongsfjorden, Spitsbergen. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Heneghan:2016:ZFI**

- [403] Ryan F. Heneghan, Jason D. Everett, Julia L. Blanchard, and Anthony J. Richardson. Zooplankton are not fish: Improving zooplankton realism in size-spectrum models mediates energy transfer in food webs. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Tobena:2016:MPD**

- [404] Marta Tobeña, Rui Prieto, Miguel Machete, and Mónica A. Silva. Modeling the potential distribution and richness of cetaceans in the Azores from Fisheries Observer Program data. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Aylagas:2016:MSS**

- [405] Eva Aylagas, Iñaki Mendibil, Ángel Borja, and Naiara Rodríguez-Ezpeleta. Marine sediment sample pre-processing for macroinvertebrates metabarcoding: Mechanical enrichment and homogenization. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Peran:2016:SCA**

- [406] Antonio D. Peran, Christopher K. Pham, Patrícia Amorim, Frederico Cardigos, Fernando Tempera, and Telmo Morato. Seafloor characteristics in the Azores Region (North Atlantic). *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Nygaard:2016:PVV**

- [407] Henrik Nygård, Soile Oinonen, Heidi A. Hällfors, Maiju Lehtiniemi, Eija Rantajärvi, and Laura Uusitalo. Price vs. value of marine monitoring. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.

**Perez-Gomez:2016:LDT**

- [408] Begoña Pérez-Gómez, Fernando Manzano, Enrique Alvarez-Fanjul, Carlos González, Juan V. Cantavella, and François Schindelé. Lessons derived from two high-frequency sea level events in the Atlantic: Implications for coastal risk analysis and tsunami detection. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Teixeira:2016:CMB**

- [409] Heliana Teixeira, Torsten Berg, Laura Uusitalo, Karin Fürhaupter, Anna-Stiina Heiskanen, Krysia Mazik, Christopher P. Lynam, Suzanna Neville, J. German Rodriguez, Nadia Papadopoulou, Snejana Moncheva, Tanya Churilova, Olga Kryvenko, Dorte Krause-Jensen, Anastasija Zaiko, Helena Veríssimo, Maria Pantazi, Susana Carvalho, Joana Patrício, Maria C. Uyarra, and Ángel Borja. A catalogue of marine biodiversity indicators. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Olenin:2016:NAI**

- [410] Sergej Olenin, Aleksas Naršcius, Stephan Gollasch, Maiju Lehtiniemi, Agnese Marchini, Dan Minchin, and Greta Srėbalienė. New arrivals: an indicator for non-indigenous species introductions at different geographical scales. *Frontiers in Marine Science*, 3, October 2016. ISSN 2296-7745.



**Chua:2016:REF**

- [411] Emily J. Chua, William Savidge, R. Timothy Short, Andres M. Cardenas-Valencia, and Robinson W. Fulweiler. A review of the emerging field of underwater mass spectrometry. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Wasmund:2016:PSF**

- [412] Norbert Wasmund, Herbert Siegel, Karolina Bohata, Anita Flohr, Anja Hansen, and Volker Mohrholz. Phytoplankton stimulation in Frontal Regions of Benguela Upwelling filaments by internal factors. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Trnovsky:2016:AEO**

- [413] Daniel Trnovsky, Laura Stoltenberg, Tyler Cyronak, and Bradley D. Eyre. Antagonistic effects of ocean acidification and rising sea surface temperature on the dissolution of coral reef carbonate sediments. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Danovaro:2016:IIM**

- [414] Roberto Danovaro, Laura Carugati, Marco Berzano, Abigail E. Cahill, Susana Carvalho, Anne Chenuil, Cinzia Corinaldesi, Sonia Cristina, Romain David, Antonio Dell'Anno, Nina Dzhembekova, Esther Garcés, Joseph M. Gasol, Priscila Goela, Jean-Pierre Féral, Isabel Ferrera, Rodney M. Forster, Andrey A. Kurekin, Eugenio Rastelli, Veselka Marinova, Peter I. Miller, Snejana Moncheva, Alice Newton, John K. Pearman, Sophie G. Pitois, Albert Reñé, Naiara Rodríguez-Ezpeleta, Vincenzo Saggiomo, Stefan G. H. Simis, Kremena Stefanova, Christian Wilson, Marco Lo Martire, Silvestro Greco, Sabine K. J. Cochrane, Olga Mangoni, and Angel Borja. Implementing and innovating marine monitoring approaches for assessing marine environmental status. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Kim:2016:DAD**

- [415] Hyewon Kim and Hugh W. Ducklow. A decadal (2002–2014) analysis for dynamics of heterotrophic bacteria in an Antarctic coastal ecosystem: Variability and physical and biogeochemical forcings. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Vethaak:2016:DTP**

- [416] A. Dick Vethaak, Paul K. Baggelaar, J. Hein M. van Lieverloo, and Freek Ariese. Decadal trends in polycyclic aromatic hydrocarbon (PAH) contamination assessed by 1-hydroxypyrene in fish bile fluid in The Nether-

lands: Declining in marine waters but still a concern in estuaries. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Reyes:2016:NAC**

- [417] Daniela Reyes, John Gold, Ruth González, and Rodrigo Vidal. De novo assembly, characterization and functional annotation of southern hake (*Merluccius australis*) transcriptome. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**King:2016:MAA**

- [418] D. Whitney King, Emma Berger, Zachary Helm, Eleanor Irish, and Kenneth Mopper. Measurement of antioxidant activity toward superoxide in natural waters. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Li:2016:HDN**

- [419] Gang Li, Amy D. Woroch, Natalie A. Donaher, Amanda M. Cockshutt, and Douglas A. Campbell. A hard day's night: Diatoms continue recycling photosystem II in the dark. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Gago:2016:MSR**

- [420] Jesus Gago, Francois Galgani, Thomas Maes, and Richard C. Thompson. Microplastics in seawater: Recommendations from the marine strategy framework directive implementation process. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Lehtinen:2016:ASF**

- [421] Sirpa Lehtinen, Sanna Suikkanen, Heidi Hällfors, Pirkko Kauppila, Maiju Lehtiniemi, Jarno Tuimala, Laura Uusitalo, and Harri Kuosa. Approach for supporting food web assessments with multi-decadal phytoplankton community analyses — case Baltic Sea. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Caprara:2016:CIS**

- [422] Salvatore Caprara, Kristen N. Buck, Loes J. A. Gerringa, Micha J. A. Rijkenberg, and Damiano Monticelli. A compilation of iron speciation data for open oceanic waters. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Astrahan:2016:IDA**

- [423] Peleg Astrahan, Barak Herut, Adina Paytan, and Eyal Rahav. The impact of dry atmospheric deposition on the sea-surface microlayer in the

SE Mediterranean Sea: an experimental approach. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Osburn:2016:ELO**

- [424] Christopher L. Osburn and Thomas S. Bianchi. Editorial: Linking optical and chemical properties of dissolved organic matter in natural waters. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Blasiak:2016:NUB**

- [425] Robert Blasiak, Jeremy Pittman, Nobuyuki Yagi, and Hiroaki Sugino. Negotiating the use of biodiversity in marine areas beyond national jurisdiction. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Banas:2016:CLS**

- [426] Neil S. Banas, Eva F. Møller, Torkel G. Nielsen, and Lisa B. Eisner. Copepod life strategy and population viability in response to prey timing and temperature: Testing a new model across latitude, time, and the size spectrum. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Herut:2016:PIS**

- [427] Barak Herut, Eyal Rahav, Tatiana M. Tsagaraki, Antonia Giannakourou, Anastasia Tsiola, Stella Psarra, Anna Lagaria, Nafsika Papageorgiou, Nikos Mihalopoulos, Christina N. Theodosi, Kalliopi Violaki, Eleni Stathopoulou, Michael Scoullou, Michael D. Krom, Anthony Stockdale, Zongbo Shi, Ilana Berman-Frank, Travis B. Meador, Tsuneo Tanaka, and Pitta Paraskevi. The potential impact of Saharan dust and polluted aerosols on microbial populations in the East Mediterranean Sea, an overview of a mesocosm experimental approach. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Murphy:2016:HFO**

- [428] Sarah A. Murphy, Shengnan Meng, Benson M. Solomon, Dewamunnage M. C. Dias, Timothy J. Shaw, and John L. Ferry. Hydrous ferric oxides in sediment catalyze formation of reactive oxygen species during sulfide oxidation. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Fieth:2016:OCB**

- [429] Rebecca A. Fieth, Marie-Emilie A. Gauthier, Joanne Bayes, Kathryn M. Green, and Sandie M. Degnan. Ontogenetic changes in the bacterial symbiont community of the tropical demosponge *Amphimedon queenslandica*: Metamorphosis is a new beginning. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Parsons:2016:AAD**

- [430] E. C. M. Parsons. “Advocacy” and “Activism” are not dirty words — how activists can better help conservation scientists. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Newton:2016:TSG**

- [431] Alice Newton and Michael Elliott. A typology of stakeholders and guidelines for engagement in transdisciplinary, participatory processes. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Uchimiya:2016:CRB**

- [432] Mario Uchimiya, Chiaki Motegi, Shigeto Nishino, Yusuke Kawaguchi, Jun Inoue, Hiroshi Ogawa, and Toshi Nagata. Coupled response of bacterial production to a wind-induced fall phytoplankton bloom and sediment resuspension in the Chukchi Sea Shelf, Western Arctic Ocean. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Zhang:2016:DPE**

- [433] Tong Zhang, Julia M. Diaz, Caterina Brighi, Rachel J. Parsons, Sean McNally, Amy Apprill, and Colleen M. Hansel. Dark production of extracellular superoxide by the coral *Porites astreoides* and representative symbionts. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Katikiro:2016:FPR**

- [434] Robert E. Katikiro and Jairos J. Mahenge. Fishers’ perceptions of the recurrence of dynamite-fishing practices on the Coast of Tanzania. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Rothig:2016:DBC**

- [435] Till Röthig, Rúben M. Costa, Fabia Simona, Sebastian Baumgarten, Ana F. Torres, Anand Radhakrishnan, Manuel Aranda, and Christian R. Woolstra. Distinct bacterial communities associated with the coral model *Aiptasia* in aposymbiotic and symbiotic states with *Symbiodinium*. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Powers:2016:AQE**

- [436] Leanne C. Powers and William L. Miller. Apparent quantum efficiency spectra for superoxide photoproduction and its formation of hydrogen peroxide in natural waters. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Scherer:2016:ASP**

- [437] Cordula Scherer, Richard J. Gowen, and Paul Tett. Assessing the state of the pelagic habitat: a case study of plankton and its environment in the Western Irish Sea. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Tolar:2016:AOO**

- [438] Bradley B. Tolar, Leanne C. Powers, William L. Miller, Natalie J. Wallsgrove, Brian N. Popp, and James T. Hollibaugh. Ammonia oxidation in the ocean can be inhibited by nanomolar concentrations of hydrogen peroxide. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Beyerl:2016:RPC**

- [439] Katharina Beyerl, Oliver Putz, and Annette Breckwoldt. The role of perceptions for community-based marine resource management. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Pajusalu:2016:ICE**

- [440] Liina Pajusalu, Georg Martin, Arno Põllumäe, and Tiina Paalme. The influence of CO<sub>2</sub> enrichment on net photosynthesis of seagrass *Zostera marina* in a brackish water environment. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Gregg:2016:DSI**

- [441] Watson W. Gregg and Cécile S. Rousseaux. Directional and spectral irradiance in ocean models: Effects on simulated global phytoplankton, nutrients, and primary production. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Rowden:2016:HDD**

- [442] Ashley A. Rowden, Daniel Leduc, Malcolm R. Clark, and David A. Bowden. Habitat differences in deep-sea megafaunal communities off New Zealand: Implications for vulnerability to anthropogenic disturbance and management. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Belley:2016:RCB**

- [443] Régnald Belley and Paul V. R. Snelgrove. Relative contributions of biodiversity and environment to benthic ecosystem functioning. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Boiteau:2016:SCN**

- [444] Rene M. Boiteau, Claire P. Till, Angel Ruacho, Randelle M. Bundy, Nicholas J. Hawco, Amy M. McKenna, Katherine A. Barbeau, Kenneth W. Bruland, Mak A. Saito, and Daniel J. Repeta. Structural characterization of natural nickel and copper binding ligands along the US GEOTRACES Eastern Pacific Zonal Transect. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Garcia-Robledo:2016:DRR**

- [445] Emilio Garcia-Robledo, Sergey Borisov, Ingo Klimant, and Niels P. Revsbech. Determination of respiration rates in water with sub-micromolar oxygen concentrations. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Morato:2016:FWE**

- [446] Telmo Morato, Emile Lemey, Gui Menezes, Christopher K. Pham, Joana Brito, Ambre Soszynski, Tony J. Pitcher, and Johanna J. Heymans. Food-web and ecosystem structure of the open-ocean and deep-sea environments of the Azores, NE Atlantic. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Nixon:2016:EIM**

- [447] Richard L. Nixon and Andrew R. S. Ross. Evaluation of immobilized metal-ion affinity chromatography and electrospray ionization tandem mass spectrometry for recovery and identification of copper(II)-binding ligands in seawater using the model ligand 8-hydroxyquinoline. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**DeBakker:2016:LTS**

- [448] Didier M. De Bakker, Erik H. Meesters, Rolf P. M. Bak, Gerard Nieuwland, and Fleur C. Van Duyl. Long-term shifts in coral communities on shallow to deep reef slopes of Curaçao and Bonaire: Are there any winners? *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745. See corrigendum [663].

**Cochrane:2016:WMB**

- [449] Sabine K. J. Cochrane, Jesper H. Andersen, Torsten Berg, Hugues Blanchet, Angel Borja, Jacob Carstensen, Michael Elliott, Herman Hummel, Nathalie Niquil, and Paul E. Renaud. What is marine biodiversity? Towards common concepts and their implications for assessing biodiversity status. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Hale:2016:EHD**

- [450] Stephen S. Hale, Giancarlo Cicchetti, and Christopher F. Deacutis. Eutrophication and hypoxia diminish ecosystem functions of benthic communities in a New England estuary. *Frontiers in Marine Science*, 3, November 2016. ISSN 2296-7745.

**Regier:2016:STD**

- [451] Peter Regier and Rudolf Jaffé. Short-term dissolved organic carbon dynamics reflect tidal, water management, and precipitation patterns in a subtropical estuary. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Record:2016:QTM**

- [452] Nicholas R. Record, David Talmy, and Selina Våge. Quantifying tradeoffs for marine viruses. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Oczkowski:2016:PSI**

- [453] Autumn Oczkowski, Betty Kreakie, Richard A. McKinney, and Jerry Prezioso. Patterns in stable isotope values of nitrogen and carbon in particulate matter from the Northwest Atlantic Continental Shelf, from the Gulf of Maine to Cape Hatteras. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Leslie:2016:UGW**

- [454] Matthew S. Leslie and Phillip A. Morin. Using genome-wide SNPs to detect structure in high-diversity and low-divergence populations of severely impacted eastern tropical Pacific spinner (*Stenella longirostris*) and pantropical spotted dolphins (*S. attenuata*). *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Patel:2016:VRW**

- [455] Samir H. Patel, Kara L. Dodge, Heather L. Haas, and Ronald J. Smolowitz. Videography reveals in-water behavior of loggerhead turtles (*Caretta caretta*) at a foraging ground. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Weiner:2016:MSC**

- [456] Agnes K. M. Weiner, Raphael Morard, Manuel F. G. Weinkauff, Kate F. Darling, Aurore André, Frédéric Quillévéré, Yurika Ujiie, Christophe J. Douady, Colomban de Vargas, and Michal Kucera. Methodology for single-cell genetic analysis of planktonic foraminifera for studies of protist

diversity and evolution. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Fourquez:2016:ULC**

- [457] Marion Fourquez, Sara Beier, Elanor Jongmans, Robert Hunter, and Ingrid Obernosterer. Uptake of leucine, chitin, and iron by prokaryotic groups during spring phytoplankton blooms induced by natural iron fertilization off Kerguelen Island (Southern Ocean). *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Chen:2016:GAL**

- [458] Ying Chen, Xiaoyuan Feng, Ying He, and Fengping Wang. Genome analysis of a limnobacter sp. identified in an anaerobic methane-consuming cell consortium. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Marki:2016:MSP**

- [459] Alexandra Marki and Markus Pahlow. Microzooplankton stoichiometric plasticity inferred from modeling mesocosm experiments in the Peruvian Upwelling Region. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Kandasamy:2016:PTO**

- [460] Selvaraj Kandasamy and Bejugam Nagender Nath. Perspectives on the terrestrial organic matter transport and burial along the land-deep sea continuum: Caveats in our understanding of biogeochemical processes and future needs. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Heiden:2016:LIM**

- [461] Jasmin P. Heiden, Kai Bischof, and Scarlett Trimborn. Light intensity modulates the response of two Antarctic diatom species to ocean acidification. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Ladd:2016:DDD**

- [462] Mark C. Ladd, Andrew A. Shantz, Ken Nedimyer, and Deron E. Burkepile. Density dependence drives habitat production and survivorship of *Acropora cervicornis* used for restoration on a Caribbean coral reef. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Buck:2016:IDI**

- [463] Kristen N. Buck, Loes J. A. Gerringa, and Micha J. A. Rijkenberg. An intercomparison of dissolved iron speciation at the Bermuda Atlantic



Time-series Study (BATS) site: Results from GEOTRACES Crossover Station A. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Lavy:2016:IHP**

- [464] Adi Lavy, Ray Keren, Gitai Yahel, and Micha Ilan. Intermittent hypoxia and prolonged suboxia measured in situ in a marine sponge. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Maxwell:2016:PBS**

- [465] Sara M. Maxwell, Melinda G. Conners, Nicholas B. Sisson, and Tiffany M. Dawson. Potential benefits and shortcomings of marine protected areas for small seabirds revealed using miniature tags. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Abadie:2016:CRA**

- [466] Luis M. Abadie, Elisa Sainz de Murieta, and Ibon Galarraga. Climate risk assessment under uncertainty: an application to main European coastal cities. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745. See [703].

**Nasir:2016:UCR**

- [467] Andriani Nasir. The use of C/N ratio in assessing the influence of land-based material in coastal water of South Sulawesi and Spermonde Archipelago, Indonesia. *Frontiers in Marine Science*, 2016. ISSN 2296-7745.

**Tiller:2016:SPL**

- [468] Rachel Tiller, Jean-Luc De Kok, Karolien Vermeiren, Russell Richards, Murat Van Ardelan, and Jennifer Bailey. Stakeholder perceptions of links between environmental changes to their socio-ecological system and their adaptive capacity in the region of Troms, Norway. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Torres-Beltran:2016:MCD**

- [469] Mónica Torres-Beltrán, Alyse K. Hawley, David W. Capelle, Maya P. Bhatia, W. Evan Durno, Philippe D. Tortell, and Steven J. Hallam. Methanotrophic community dynamics in a seasonally anoxic fjord: Saanich Inlet, British Columbia. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Richardson:2016:CDP**

- [470] Katherine Richardson, Jørgen Bendtsen, Theis Kragh, and Erik A. Mousing. Constraining the distribution of photosynthetic parameters in the

global ocean. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Tsubouchi:2016:CSS**

- [471] Takamasa Tsubouchi, Toshio Suga, and Kimio Hanawa. Comparison study of subtropical mode waters in the world ocean. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Almahasheer:2016:NLC**

- [472] Hanan Almahasheer, Carlos M. Duarte, and Xabier Irigoien. Nutrient limitation in Central Red Sea mangroves. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Crerar:2017:ITM**

- [473] Lorelei D. Crerar, Elizabeth W. Freeman, Daryl P. Domning, and E. Christien Michael Parsons. Illegal trade of marine mammal bone exposed: Simple test identifies bones of “Mermaid Ivory” or Steller’s sea cow (*Hydrodamalis gigas*). *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Fredston-Hermann:2016:WDR**

- [474] Alexa Fredston-Hermann, Christopher J. Brown, Simon Albert, Carissa J. Klein, Sangeeta Mangubhai, Joanna L. Nelson, Lida Teneva, Amelia Wenger, Steven D. Gaines, and Benjamin S. Halpern. Where does river runoff matter for coastal marine conservation? *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Sghaier:2016:TLD**

- [475] Dhouha Belhaj Sghaier, Sílvia Pedro, Mário Sousa Diniz, Bernardo Duarte, Isabel Caçador, and Noomene Sleimi. Tissue localization and distribution of as and al in the halophyte *Tamarix gallica* under controlled conditions. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Thaler:2017:MCS**

- [476] Mary Thaler, Warwick F. Vincent, Marie Lionard, Andrew K. Hamilton, and Connie Lovejoy. Microbial community structure and interannual change in the last epishelf lake ecosystem in the North Polar region. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Pasulka:2017:CTD**

- [477] Alexis L. Pasulka, Shana K. Goffredi, Patricia L. Tavormina, Katherine S. Dawson, Lisa A. Levin, Greg W. Rouse, and Victoria J. Orphan.

Colonial tube-dwelling ciliates influence methane cycling and microbial diversity within methane seep ecosystems. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Christiansen:2016:NLM**

- [478] Fredrik Christiansen, Laia Rojano-Doñate, Peter T. Madsen, and Lars Bejder. Noise levels of multi-rotor unmanned aerial vehicles with implications for potential underwater impacts on marine mammals. *Frontiers in Marine Science*, 3, December 2016. ISSN 2296-7745.

**Battista:2017:HAC**

- [479] Willow Battista, Amy Tourgee, Candice Wu, and Rod Fujita. How to achieve conservation outcomes at scale: an evaluation of scaling principles. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Williamson:2017:AIL**

- [480] Shanna C. Williamson, Jennie E. Rheuban, Joseph E. Costa, David M. Glover, and Scott C. Doney. Assessing the impact of local and regional influences on nitrogen loads to Buzzards Bay, MA. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Duan:2017:IWD**

- [481] Shuiwang Duan, Yuxiang He, Sujay S. Kaushal, Thomas S. Bianchi, Nicholas D. Ward, and Laodong Guo. Impact of wetland decline on decreasing dissolved organic carbon concentrations along the Mississippi River continuum. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Tsiola:2017:BGM**

- [482] Anastasia Tsiola, Tatiana M. Tsagaraki, Antonia Giannakourou, Nikolaos Nikolioudakis, Nebil Yücel, Barak Herut, and Paraskevi Pitta. Bacterial growth and mortality after deposition of Saharan dust and mixed aerosols in the Eastern Mediterranean Sea: a mesocosm experiment. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745. See corrigendum [549].

**Gobler:2017:DFA**

- [483] Christopher J. Gobler, Hannah R. Clark, Andrew W. Griffith, and Mark W. Lusty. Diurnal fluctuations in acidification and hypoxia reduce growth and survival of larval and juvenile bay scallops (*Argopecten irradians*) and hard clams (*Mercenaria mercenaria*). *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Kelly:2017:GMS**

- [484] Ryan P. Kelly, Collin J. Closek, James L. O'Donnell, James E. Kralj, Andrew O. Shelton, and Jameal F. Samhouri. Genetic and manual survey methods yield different and complementary views of an ecosystem. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Mateus:2017:BGB**

- [485] Marcos D. Mateus. Bridging the gap between knowing and modeling viruses in marine systems — an upcoming frontier. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Balsby:2017:LTP**

- [486] Thorsten J. S. Balsby, Preben Clausen, Dorte Krause-Jensen, Jacob Carstensen, and Jesper Madsen. Long-term patterns of eelgrass (*Zostera marina*) occurrence and associated herbivorous waterbirds in a Danish coastal inlet. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Denman:2017:MSA**

- [487] Kenneth L. Denman. A model simulation of the adaptive evolution through mutation of the *Coccolithophore emiliana huxleyi* based on a published laboratory study. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Lagaria:2017:PRS**

- [488] Anna Lagaria, Manolis Mandalakis, Paraskevi Mara, Nafsika Papageorgiou, Paraskevi Pitta, Anastasia Tsiola, Margarita Kagiorgi, and Stella Psarra. Phytoplankton response to Saharan dust depositions in the Eastern Mediterranean Sea: a mesocosm study. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Williams:2017:SDR**

- [489] Jessica L. Williams, Simon J. Pierce, Chris A. Rohner, Mariana M. P. B. Fuentes, and Mark Hamann. Spatial distribution and residency of green and loggerhead sea turtles using coastal reef habitats in Southern Mozambique. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Cabanes:2017:FER**

- [490] Damien J. E. Cabanes, Louiza Norman, Juan Santos-Echeandía, Morten H. Iversen, Scarlett Trimborn, Luis M. Laglera, and Christel S. Hassler. First evaluation of the role of salp fecal pellets on iron biogeochemistry. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Barange:2017:CRN**

- [491] Manuel Barange, Momme Butenschön, Andrew Yool, Nicola Beaumont, Jose A. Fernandes, Adrian P. Martin, and J. Icarus Allen. The cost of reducing the North Atlantic Ocean biological carbon pump. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**vandenBurg:2017:MIB**

- [492] Sander W. K. van den Burg, Marian Stuiver, Bas C. Bolman, Roland Wijnen, Trond Selnes, and Gordon Dalton. Mobilizing investors for blue growth. *Frontiers in Marine Science*, 3, January 2017. ISSN 2296-7745.

**Meyer:2017:MPR**

- [493] Judith Meyer, Carolin R. Löscher, Gaute Lavik, and Ulf Riebesell. Mechanisms of P\* reduction in the eastern tropical South Pacific. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Mackey:2017:AFN**

- [494] Katherine R. M. Mackey, Maria T. Kavanaugh, Fujiang Wang, Ying Chen, Fei Liu, David M. Glover, Chia-Te Chien, and Adina Paytan. Atmospheric and fluvial nutrients fuel algal blooms in the East China Sea. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Guttridge:2017:PRC**

- [495] Tristan L. Guttridge, Maurits P. M. Van Zinnicq Bergmann, Chris Bolte, Lucy A. Howey, Jean S. Finger, Steven T. Kessel, Jill L. Brooks, William Winram, Mark E. Bond, Lance K. B. Jordan, Rachael C. Cashman, Emily R. Tolentino, R. Dean Grubbs, and Samuel H. Gruber. Philopatry and regional connectivity of the great hammerhead shark, *Sphyrna mokarran* in the U.S. and Bahamas. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Hofmann:2017:EEM**

- [496] Gretchen E. Hofmann. Ecological epigenetics in marine metazoans. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Fernandez-Arcaya:2017:ERS**

- [497] Ulla Fernandez-Arcaya, Eva Ramirez-Llodra, Jacopo Aguzzi, A. Louise Allcock, Jaime S. Davies, Awantha Dissanayake, Peter Harris, Kerry Howell, Veerle A. I. Huvenne, Miles Macmillan-Lawler, Jacobo Martín, Lenaïck Menot, Martha Nizinski, Pere Puig, Ashley A. Rowden, Florence Sanchez, and Inge M. J. Van den Beld. Ecological role of submarine canyons and need for canyon conservation: a review. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Helbert:2017:MPS**

- [498] William Helbert. Marine polysaccharide sulfatases. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Ward:2017:WCG**

- [499] Nicholas D. Ward, Thomas S. Bianchi, Patricia M. Medeiros, Michael Seidel, Jeffrey E. Richey, Richard G. Keil, and Henrique O. Sawakuchi. Where carbon goes when water flows: Carbon cycling across the aquatic continuum. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Rubio:2017:HRA**

- [500] Anna Rubio, Julien Mader, Lorenzo Corgnati, Carlo Mantovani, Annalisa Griffa, Antonio Novellino, Céline Quentin, Lucy Wyatt, Johannes Schulz-Stellenfleth, Jochen Horstmann, Pablo Lorente, Enrico Zambianchi, Michael Hartnett, Carlos Fernandes, Vassilis Zervakis, Patrick Gorringer, Angélique Melet, and Ingrid Puillat. HF radar activity in European coastal seas: Next steps toward a pan-European HF radar network. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Sweet:2017:IMP**

- [501] Michael J. Sweet and Mark T. Bulling. On the importance of the microbiome and pathobiome in coral health and disease. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Benavides:2017:DOK**

- [502] Mar Benavides, Vanessa N. Bednarz, and Christine Ferrier-Pagès. Diazotrophs: Overlooked key players within the coral symbiosis and tropical reef ecosystems? *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Suffridge:2017:NAM**

- [503] Christopher Suffridge, Lynda Cutter, and Sergio A. Sañudo-Wilhelmy. A new analytical method for direct measurement of particulate and dissolved B-vitamins and their congeners in seawater. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Wilson:2017:PPC**

- [504] Jesse Wilson, Sarah Abboud, and J. Michael Beman. Primary production, community respiration, and net community production along oxygen and nutrient gradients: Environmental controls and biogeochemical feedbacks within and across “Marine lakes”. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Duarte:2017:ESM**

- [505] Carlos M. Duarte and Dorte Krause-Jensen. Export from seagrass meadows contributes to marine carbon sequestration. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Watling:2017:SHS**

- [506] Les Watling and Peter J. Auster. Seamounts on the high seas should be managed as vulnerable marine ecosystems. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Broitman:2017:DIA**

- [507] Bernardo R. Broitman, Benjamin S. Halpern, Stefan Gelcich, Marco A. Lardies, Cristian A. Vargas, Felipe Vásquez-Lavín, Stephen Widdicombe, and Silvana N. R. Birchenough. Dynamic interactions among boundaries and the expansion of sustainable aquaculture. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Onda:2017:SIC**

- [508] Deo F. L. Onda, Emmanuelle Medrinal, André M. Comeau, Mary Thaler, Marcel Babin, and Connie Lovejoy. Seasonal and interannual changes in ciliate and dinoflagellate species assemblages in the Arctic Ocean (Amundsen Gulf, Beaufort Sea, Canada). *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Yi:2017:EVL**

- [509] Zhiqian Yi, Maonian Xu, Xiaxia Di, Sigurdur Brynjolfsson, and Weiqi Fu. Exploring valuable lipids in diatoms. *Frontiers in Marine Science*, 4, January 2017. ISSN 2296-7745.

**Sommer:2017:MBW**

- [510] Stefan Sommer, David Clemens, Mustafa Yücel, Olaf Pfannkuche, Per O. J. Hall, Elin Almroth-Rosell, Heide N. Schulz-Vogt, and Andrew W. Dale. Major bottom water ventilation events do not significantly reduce basin-wide benthic N and P release in the Eastern Gotland Basin (Baltic Sea). *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Hassler:2017:TRC**

- [511] Christel S. Hassler, Constant M. G. van den Berg, and Philip W. Boyd. Toward a regional classification to provide a more inclusive examination of the ocean biogeochemistry of iron-binding ligands. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Longo:2017:UOH**

- [512] Catherine S. Longo, Melanie Frazier, Scott C. Doney, Jennie E. Rheuban, Jennifer Macy Humberstone, and Benjamin S. Halpern. Using the Ocean Health Index to identify opportunities and challenges to improving Southern Ocean ecosystem health. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**DSa:2017:SGD**

- [513] Eurico J. D'Sa and Hyun cheol Kim. Surface gradients in dissolved organic matter absorption and fluorescence properties along the New Zealand sector of the Southern Ocean. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Wasmund:2017:DDIa**

- [514] Norbert Wasmund, Janina Kownacka, Jeanette Göbel, Andres Jaanus, Marie Johansen, Iveta Jurgensone, Sirpa Lehtinen, and Martin Powilleit. The diatom/dinoflagellate index as an indicator of ecosystem changes in the Baltic Sea 1. Principle and handling instruction. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Padilla:2017:MBR**

- [515] Cory C. Padilla, Anthony D. Bertagnolli, Laura A. Bristow, Neha Sarode, Jennifer B. Glass, Bo Thamdrup, and Frank J. Stewart. Metagenomic binning recovers a transcriptionally active gammaproteobacterium linking methanotrophy to partial denitrification in an anoxic oxygen minimum zone. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Carrasco:2017:NOA**

- [516] Cristina Carrasco, Johannes Karstensen, and Laura Farias. On the nitrous oxide accumulation in intermediate waters of the Eastern South Pacific Ocean. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Cascao:2017:PEM**

- [517] Irma Casção, Réka Domokos, Marc O. Lammers, Vítor Marques, Rula Domínguez, Ricardo S. Santos, and Mónica A. Silva. Persistent enhancement of micronekton backscatter at the summits of seamounts in the Azores. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Gagne-Maynard:2017:EPP**

- [518] William C. Gagne-Maynard, Nicholas D. Ward, Richard G. Keil, Henrique O. Sawakuchi, Alan C. Da Cunha, Vania Neu, Daimio C. Brito,



Diani F. Da Silva Less, Joel E. M. Diniz, Aline De Matos Valerio, Milton Kampel, Alex V. Krusche, and Jeffrey E. Richey. Evaluation of primary production in the Lower Amazon River based on a dissolved oxygen stable isotopic mass balance. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Hall:2017:INO**

- [519] Per O. J. Hall, Elin Almroth Rosell, Stefano Bonaglia, Andrew W. Dale, Astrid Hylén, Mikhail Kononets, Madeleine Nilsson, Stefan Sommer, Sebastiaan van de Velde, and Lena Viktorsson. Influence of natural oxygenation of Baltic proper deep water on benthic recycling and removal of phosphorus, nitrogen, silicon and carbon. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Malkin:2017:ESO**

- [520] Sairah Y. Malkin, Dorina Seitaj, Laurine D. W. Burdorf, Sil Nieuwhof, Silvia Hidalgo-Martinez, Anton Tramper, Naomi Geeraert, Henko De Stigter, and Filip J. R. Meysman. Electrogenic sulfur oxidation by cable bacteria in bivalve reef sediments. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Dale:2017:SDB**

- [521] Andrew W. Dale, Michelle Graco, and Klaus Wallmann. Strong and dynamic benthic-pelagic coupling and feedbacks in a coastal upwelling system (Peruvian Shelf). *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Hardesty:2017:UNM**

- [522] Britta D. Hardesty, Joseph Harari, Atsuhiko Isobe, Laurent Lebreton, Nikolai Maximenko, Jim Potemra, Erik van Sebille, A. Dick Vethaak, and Chris Wilcox. Using numerical model simulations to improve the understanding of micro-plastic distribution and pathways in the marine environment. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**McWhinnie:2017:GCR**

- [523] Lauren McWhinnie, Leh Smallshaw, Norma Serra-Sogas, Patrick D. O'Hara, and Rosaline Canessa. The grand challenges in researching marine noise pollution from vessels: a horizon scan for 2017. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Borja:2017:EBG**

- [524] Angel Borja, Michael Elliott, María C. Uyarra, Jacob Carstensen, and Marianna Mea. Editorial: Bridging the gap between policy and science

in assessing the health status of marine ecosystems. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Fortibuoni:2017:ALT**

- [525] Tomaso Fortibuoni, Otello Giovanardi, Fabio Pranovi, Saša Raicevich, Cosimo Solidoro, and Simone Libralato. Analysis of long-term changes in a Mediterranean marine ecosystem based on fishery landings. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745. See corrigendum [696].

**Thomalla:2017:UOS**

- [526] Sandy J. Thomalla, A. Gilbert Ogunkoya, Marcello Vichi, and Sebastiaan Swart. Using optical sensors on gliders to estimate phytoplankton carbon concentrations and chlorophyll-to-carbon ratios in the Southern Ocean. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Christou:2017:RCC**

- [527] Epaminondas D. Christou, Soultana Zervoudaki, Ma Luz Fernandez De Puelles, Maria Protopapa, Ioanna Varkitzi, Paraskevi Pitta, Tatiana M. Tsagaraki, and Barak Herut. Response of the calanoid copepod *Clausocalanus furcatus*, to atmospheric deposition events: Outcomes from a mesocosm study. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Bates:2017:TYM**

- [528] Nicholas R. Bates. Twenty years of marine carbon cycle observations at Devils Hole Bermuda provide insights into seasonal hypoxia, coral reef calcification, and ocean acidification. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Caldeira:2017:ACZ**

- [529] Rui M. A. Caldeira and Jesus C. Reis. The Azores Confluence Zone. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Myers-Pigg:2017:FDP**

- [530] Allison N. Myers-Pigg, Patrick Louchouart, and Roman Teisserenc. Flux of dissolved and particulate low-temperature pyrogenic carbon from two high-latitude rivers across the spring freshet hydrograph. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Pascual:2017:MEU**

- [531] Ananda Pascual, Simon Ruiz, Antonio Olita, Charles Troupin, Mariona Claret, Benjamin Casas, Baptiste Mourre, Pierre-Marie Poulain, Antonio Tovar-Sanchez, Arthur Capet, Evan Mason, John T. Allen, Amala

Mahadevan, and Joaquín Tintoré. A multiplatform experiment to unravel meso- and submesoscale processes in an intense front (AlborEx). *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Deppeler:2017:SOP**

- [532] Stacy L. Deppeler and Andrew T. Davidson. Southern Ocean phytoplankton in a changing climate. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Mouw:2017:CGS**

- [533] Colleen B. Mouw, Nick J. Hardman-Mountford, Séverine Alvain, Astrid Bracher, Robert J. W. Brewin, Annick Bricaud, Aurea M. Ciotti, Emmanuel Devred, Amane Fujiwara, Takafumi Hirata, Toru Hirawake, Tihomir S. Kostadinov, Shovonlal Roy, and Julia Uitz. A consumer's guide to satellite remote sensing of multiple phytoplankton groups in the global ocean. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Vasilatou:2017:LTF**

- [534] Vasiliki Vasilatou, Manousos Manousakas, Maria Gini, Evangelia Diapouli, Michael Scoullou, and Konstantinos Eleftheriadis. Long term flux of Saharan dust to the Aegean Sea around the Attica Region, Greece. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Reyna:2017:IMS**

- [535] Nicolas E. Reyna, Amber K. Hardison, and Zhanfei Liu. Influence of major storm events on the quantity and composition of particulate organic matter and the phytoplankton community in a subtropical estuary, Texas. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Bertassoli:2017:FCS**

- [536] Dailson J. Bertassoli, André O. Sawakuchi, Henrique O. Sawakuchi, Fabiano N. Pupim, Gelvam A. Hartmann, Michael M. McGlue, Cristiano M. Chiessi, Matthias Zabel, Enno Schefuß, Tatiana S. Pereira, Rudney A. Santos, Samantha B. Faustino, Paulo E. Oliveira, and Denise C. Bicudo. The fate of carbon in sediments of the Xingu and Tapajós Clearwater Rivers, Eastern Amazon. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Jin:2017:CRM**

- [537] Peng Jin, Carlos M. Duarte, and Susana Agustí. Contrasting responses of marine and freshwater photosynthetic organisms to UVB radiation: a meta-analysis. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Haigh:2017:ESL**

- [538] Ivan D. Haigh, Marta Marcos, Sönke Dangendorf, and Francisco Mir Calafat. Editorial: Sea level variability and change. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Porter:2017:MMA**

- [539] Lindsay Porter and Hong Yu Lai. Marine mammals in Asian societies; trends in consumption, bait, and traditional use. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Swindells:2017:HCA**

- [540] Kate L. Swindells, Robyn J. Murdoch, William D. Bazen, Nicholas W. Harman, and Richard K. F. Unsworth. Habitat configuration alters herbivory across the tropical seascape. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Giakoumi:2017:AEM**

- [541] Sylvaine Giakoumi and Alexis Pey. Assessing the effects of marine protected areas on biological invasions: a global review. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Doumbouya:2017:AEM**

- [542] Alkaly Doumbouya, Ousmane T. Camara, Josephus Mamie, Jeremias F. Intchama, Abdoulie Jarra, Salifu Ceesay, Assane Guèye, Diène Ndiaye, Ely Beibou, Allan Padilla, and Dyhia Belhabib. Assessing the effectiveness of monitoring control and surveillance of illegal fishing: The case of West Africa. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Trembanis:2017:MCE**

- [543] Arthur C. Trembanis, Alexander L. Forrest, Bryan M. Keller, and Mark R. Patterson. Mesophotic coral ecosystems: a geoacoustically derived proxy for habitat and relative diversity for the Leeward Shelf of Bonaire, Dutch Caribbean. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Sourisseau:2017:RCA**

- [544] Marc Sourisseau, Valerie Le Guennec, Guillaume Le Gland, Martin Plus, and Annie Chapelle. Resource competition affects plankton community structure; evidence from trait-based modeling. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Keskin:2017:MFB**

- [545] Çetin Keskin, Aylin Ulman, Kyrstn Zylich, Violin Raykov, Georgi M. Daskalov, Daniel Pauly, and Dirk Zeller. The marine fisheries in Bulgaria's Exclusive Economic Zone, 1950–2013. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Serrano:2017:SMP**

- [546] Oscar Serrano, Eduard Serrano, Karina Inostroza, Paul S. Lavery, Miguel A. Mateo, and Enric Ballesteros. Seagrass meadows provide 3D habitat for reef fish. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745.

**Bracher:2017:OPD**

- [547] Astrid Bracher, Heather A. Bouman, Robert J. W. Brewin, Annick Bricaud, Vanda Brotas, Aurea M. Ciotti, Lesley Clementson, Emmanuel Devred, Annalisa Di Cicco, Stephanie Dutkiewicz, Nick J. Hardman-Mountford, Anna E. Hickman, Martin Hieronymi, Takafumi Hirata, Svetlana N. Losa, Colleen B. Mouw, Emanuele Organelli, Dionysios E. Raitsos, Julia Uitz, Meike Vogt, and Aleksandra Wolanin. Obtaining phytoplankton diversity from ocean color: a scientific roadmap for future development. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Amorim:2017:OOC**

- [548] Patrícia Amorim, António D. Perán, Christopher K. Pham, Manuela Juliano, Frederico Cardigos, Fernando Tempera, and Telmo Morato. Overview of the ocean climatology and its variability in the Azores region of the North Atlantic including environmental characteristics at the seabed. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Tsiola:2017:CBG**

- [549] Anastasia Tsiola, Tatiana M. Tsagaraki, Antonia Giannakourou, Nikolaos Nikolioudakis, Nebil Yücel, Barak Herut, and Paraskevi Pitta. Corrigendum: Bacterial growth and mortality after deposition of Saharan dust and mixed aerosols in the Eastern Mediterranean Sea: a mesocosm experiment. *Frontiers in Marine Science*, 4, February 2017. ISSN 2296-7745. See [482].

**Gamain:2017:DTS**

- [550] Perrine Gamain, Jérôme Cachot, Patrice Gonzalez, Hélène Budzinski, Pierre-Yves Gourves, and Bénédicte Morin. Do temporal and spatial

parameters or lifestyle of the Pacific oyster *Crassostrea gigas* affect pollutant bioaccumulation, offspring development, and tolerance to pollutants? *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Hawkins:2017:BPF**

- [551] Elizabeth R. Hawkins, Robert Harcourt, Lars Bejder, Lyndon O. Brooks, Alana Grech, Fredrik Christiansen, Helene Marsh, and Peter L. Harrison. Best practice framework and principles for monitoring the effect of coastal development on marine mammals. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Gregg:2017:SPG**

- [552] Watson W. Gregg and Cécile S. Rousseaux. Simulating PACE global ocean radiances. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Downes:2017:END**

- [553] Jamie K. Downes, Megan L. Rigby, Richard S. Taylor, Ben T. Maynard, Eugene MacCarthy, Ian O'Connor, Mar Marcos-Lopez, Hamish D. Rodger, Evelyn Collins, Neil M. Ruane, and Mathew T. Cook. Evaluation of non-destructive molecular diagnostics for the detection of *Neoparamoeba perurans*. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Schaefer:2017:NHO**

- [554] Jame Schaefer. New hope for the oceans: Engaging faith-based communities in marine conservation. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Hajbane:2017:PPP**

- [555] Sara Hajbane and Charitha B. Pattiaratchi. Plastic pollution patterns in offshore, nearshore and estuarine waters: a case study from Perth, Western Australia. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Schulz:2017:PBI**

- [556] Kai G. Schulz, Lennart T. Bach, Richard G. J. Bellerby, Rafael Bermúdez, Jan Büdenbender, Tim Boxhammer, Jan Czerny, Anja Engel, Andrea Ludwig, Michael Meyerhöfer, Aud Larsen, Allanah J. Paul, Michael Sswat, and Ulf Riebesell. Phytoplankton blooms at increasing levels of atmospheric carbon dioxide: Experimental evidence for negative effects on prymnesiophytes and positive on small picoeukaryotes. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Ramenzoni:2017:RHE**

- [557] Victoria C. Ramenzoni. Reconstructing the history and the effects of mechanization in a small-scale fishery of Flores, Eastern Indonesia (1917–2014). *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Avo:2017:DBM**

- [558] Ana P. Avó, Tim J. Daniell, Roy Neilson, Solange Oliveira, Jordana Branco, and Helena Adão. DNA barcoding and morphological identification of benthic nematodes assemblages of estuarine intertidal sediments: Advances in molecular tools for biodiversity assessment. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Peredo:2017:DTL**

- [559] Carlos Mauricio Peredo, Nicholas D. Pyenson, and Alexandra T. Boersma. Decoupling tooth loss from the evolution of baleen in whales. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Chust:2017:MIG**

- [560] Guillem Chust, Meike Vogt, Fabio Benedetti, Teofil Nakov, Sébastien Villéger, Anaïs Aubert, Sergio M. Vallina, Damiano Righetti, Fabrice Not, Tristan Biard, Lucie Bittner, Anne-Sophie Benoiston, Lionel Guidi, Ernesto Villarino, Charlie Gaborit, Astrid Cornils, Lucie Buttay, Jean-Olivier Irisson, Marlène Chiarello, Alessandra L. Vallim, Leocadio Blanco-Bercial, Laura Basconi, and Sakina-Dorothee Ayata. *Mare Incognitum: a glimpse into future plankton diversity and ecology research*. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745. See corrigendum [614].

**Medeiros:2017:MMT**

- [561] Patricia M. Medeiros, Michael Seidel, Scott M. Gifford, Ford Ballantyne, Thorsten Dittmar, William B. Whitman, and Mary Ann Moran. Microbially-mediated transformations of estuarine dissolved organic matter. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Ogburn:2017:ACA**

- [562] Matthew B. Ogburn, Autumn-Lynn Harrison, Frederick G. Whoriskey, Steven J. Cooke, Joanna E. Mills Flemming, and Leigh G. Torres. Addressing challenges in the application of animal movement ecology to aquatic conservation and management. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Tiller:2017:AGP**

- [563] Rachel G. Tiller, Jean-Luc De Kok, Karolien Vermeiren, and Trine Thorvaldsen. Accountability as a governance paradox in the Norwegian salmon aquaculture industry. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Cardinale:2017:MSF**

- [564] Massimiliano Cardinale, Giacomo Chato Osio, and Giuseppe Scarcella. Mediterranean Sea: a failure of the European Fisheries Management System. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745. See corrigendum [1100].

**Fink:2017:OAC**

- [565] Artur Fink, Joost den Haan, Arjun Chennu, Sven Uthicke, and Dirk de Beer. Ocean acidification changes abiotic processes but not biotic processes in coral reef sediments. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Seto:2017:SPR**

- [566] Katherine Seto and Kathryn J. Fiorella. From sea to plate: The role of fish in a sustainable diet. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Carreira:2017:CMM**

- [567] Gilberto P. Carreira, Paul W. Shaw, João M. Gonçalves, and Niall J. McKeown. Congruent molecular and morphological diversity of Macaronesian limpets: Insights into eco-evolutionary forces and tools for conservation. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Sawakuchi:2017:CDE**

- [568] Henrique O. Sawakuchi, Vania Neu, Nicholas D. Ward, Maria de Lourdes C. Barros, Aline M. Valerio, William Gagne-Maynard, Alan C. Cunha, Diani F. S. Less, Joel E. M. Diniz, Daimio C. Brito, Alex V. Krusche, and Jeffrey E. Richey. Carbon dioxide emissions along the Lower Amazon River. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745. See corrigendum [2210].

**Everett:2017:MWW**

- [569] Jason D. Everett, Mark E. Baird, Pearse Buchanan, Cathy Bulman, Claire Davies, Ryan Downie, Chris Griffiths, Ryan Heneghan, Rudy J. Kloser, Leonardo Laiolo, Ana Lara-Lopez, Hector Lozano-Montes, Richard J. Matear, Felicity McEnnulty, Barbara Robson, Wayne



Rochester, Jenny Skerratt, James A. Smith, Joanna Strzelecki, Iain M. Suthers, Kerrie M. Swadling, Paul van Ruth, and Anthony J. Richardson. Modeling what we sample and sampling what we model: Challenges for zooplankton model assessment. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Carlson:2017:CLO**

- [570] Daniel F. Carlson, Giuseppe Suaria, Stefano Aliani, Erick Fredj, Tomaso Fortibuoni, Annalisa Griffa, Aniello Russo, and Valentina Melli. Combining litter observations with a regional ocean model to identify sources and sinks of floating debris in a semi-enclosed basin: The Adriatic Sea. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Nosaka:2017:DOT**

- [571] Yuichi Nosaka, Youhei Yamashita, and Koji Suzuki. Dynamics and origin of transparent exopolymer particles in the Oyashio region of the Western Subarctic Pacific during the spring diatom bloom. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Kumar:2017:FEA**

- [572] P. Kiran Kumar, Arvind Singh, R. Ramesh, and T. Nallathambi. N<sub>2</sub> fixation in the Eastern Arabian Sea: Probable role of heterotrophic diazotrophs. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745. See corrigendum [1689].

**Germer:2017:HTC**

- [573] Juliane Germer, Nicolas Cerveau, and Daniel J. Jackson. The holotranscriptome of a calcified early branching metazoan. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Robinson:2017:TTC**

- [574] Kelly L. Robinson, Jessica Y. Luo, Su Sponaugle, Cedric Guigand, and Robert K. Cowen. A tale of two crowds: Public engagement in plankton classification. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Langenkamper:2017:PBB**

- [575] Daniel Langenkämper, Martin Zurowietz, Timm Schoening, and Tim W. Nattkemper. BIIGLE 2.0 — browsing and annotating large marine image collections. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745. See corrigendum [2211].

**Kalogerakis:2017:MGO**

- [576] Nicolas Kalogerakis, Katerina Karkanorachaki, G. Calypso Kalogerakis, Elisavet I. Triantafyllidi, Alexandros D. Gotsis, Panagiotis Partsinevelos, and Fabio Fava. Microplastics generation: Onset of fragmentation of polyethylene films in marine environment mesocosms. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Taucher:2017:IOA**

- [577] Jan Taucher, Lennart T. Bach, Tim Boxhammer, Alice Nauendorf, Eric P. Achterberg, María Algueró-Muñiz, Javier Aristegui, Jan Czerny, Mario Esposito, Wanchun Guan, Mathias Haunost, Henriette G. Horn, Andrea Ludwig, Jana Meyer, Carsten Spisla, Michael Sswat, Paul Stange, and Ulf Riebesell. Influence of ocean acidification and deep water upwelling on oligotrophic plankton communities in the subtropical North Atlantic: Insights from an in situ mesocosm study. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Gonzalez-Fernandez:2017:THA**

- [578] Daniel González-Fernández and Georg Hanke. Toward a harmonized approach for monitoring of riverine floating macro litter inputs to the marine environment. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Newell:2017:MBS**

- [579] Robert Newell, Rosaline Canessa, and Tara Sharma. Modeling both the space and place of coastal environments: Exploring an approach for developing realistic geovisualizations of coastal places. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Carreiro-Silva:2017:ZHZ**

- [580] Marina Carreiro-Silva, Oscar Ocaña, David Stanković, Íris Sampaio, Filipe M. Porteiro, Marie-Claire Fabri, and Sergio Stefanni. Zoantharians (Hexacorallia: Zoantharia) associated with cold-water corals in the Azores region: New species and associations in the deep sea. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Cyr:2017:NGC**

- [581] Frédéric Cyr, Marc Tedetti, Florent Besson, Laurent Beguery, Andrea M. Doglioli, Anne A. Petrenko, and Madeleine Goutx. A new glider-compatible optical sensor for dissolved organic matter measurements: Test case from the NW Mediterranean Sea. *Frontiers in Marine Science*, 4, March 2017. ISSN 2296-7745.

**Churilova:2017:LAP**

- [582] Tanya Churilova, Vyacheslav Suslin, Olga Krivenko, Tatiana Efimova, Nataliia Moiseeva, Vladimir Mukhanov, and Liliya Smirnova. Light absorption by phytoplankton in the upper mixed layer of the Black Sea: Seasonality and parametrization. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Lonborg:2017:CDD**

- [583] Christian Lønborg, L. Antonio Cuevas, Thomas Reinthaler, Gerhard J. Herndl, Josep M. Gasol, Xosé Anxelu G. Morán, Nicholas R. Bates, and Xosé A. Álvarez-Salgado. Corrigendum: Depth dependent relationships between temperature and ocean heterotrophic prokaryotic production. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745. See [293].

**Mayorga-Adame:2017:MLC**

- [584] C. Gabriela Mayorga-Adame, Harold P. Batchelder, and Yvette H. Spitz. Modeling larval connectivity of coral reef organisms in the Kenya–Tanzania region. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**deCarvalho:2017:CAE**

- [585] Carla C. C. R. de Carvalho and Maria J. Caramujo. Carotenoids in aquatic ecosystems and aquaculture: a colorful business with implications for human health. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Brooks:2017:MVS**

- [586] Lyndon Brooks, Carol Palmer, Anthony D. Griffiths, and Kenneth H. Pollock. Monitoring variation in small coastal dolphin populations: an example from Darwin, Northern Territory, Australia. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Wilson:2017:CMP**

- [587] Bryan Wilson, Oliver Müller, Eva-Lena Nordmann, Lena Seuthe, Gunnar Bratbak, and Lise Øvreås. Changes in marine prokaryote composition with season and depth over an Arctic polar year. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Weatherdon:2017:BEB**

- [588] Lauren V. Weatherdon, Ward Appeltans, Nadine Bowles-Newark, Thomas M. Brooks, Frances E. Davis, Katherine Despot-Belmonte, Stephen Fletcher, Cristina Garilao, Craig Hilton-Taylor, Tim Hirsch, Diego Juffe-Bignoli, Kristin Kaschner, Naomi Kingston, Kelly Malsch,

Eugenie C. Regan, Kathleen Kesner-Reyes, David C. Rose, Florian T. Wetzel, Tim Wilkinson, and Corinne S. Martin. Blueprints of effective biodiversity and conservation knowledge products that support marine policy. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Frias-Torres:2017:CBA**

- [589] Sarah Frias-Torres. Captive bred, adult giant clams survive restoration in the wild in Seychelles, Indian Ocean. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Asher:2017:MDG**

- [590] Jacob Asher, Ivor D. Williams, and Euan S. Harvey. Mesophotic depth gradients impact reef fish assemblage composition and functional group partitioning in the main Hawaiian Islands. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Tsagarakis:2017:OIN**

- [591] Konstantinos Tsagarakis, Ana Carbonell, Jure Brčić, Jose M. Bellido, Pierluigi Carbonara, Loredana Casciaro, Alexius Edridge, Teresa García, Maria González, Svjetlana Krstulović Šifner, Athanassios Machias, Emilio Notti, Georgia Papantoniou, Antonello Sala, Frane Škeljo, Sergio Vitale, and Vassiliki Vassilopoulou. Old info for a new fisheries policy: Discard ratios and lengths at discarding in EU Mediterranean bottom trawl fisheries. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Duarte:2017:CSF**

- [592] Carlos M. Duarte, Jiaping Wu, Xi Xiao, Annette Bruhn, and Dorte Krause-Jensen. Can seaweed farming play a role in climate change mitigation and adaptation? *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Buscher:2017:IEO**

- [593] Janina V. Büscher, Armin U. Form, and Ulf Riebesell. Interactive effects of ocean acidification and warming on growth, fitness and survival of the cold-water coral *Lophelia pertusa* under different food availabilities. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Ezzat:2017:CNA**

- [594] Leïla Ezzat, Maoz Fine, Jean-François Maguer, Renaud Grover, and Christine Ferrier-Pagès. Carbon and nitrogen acquisition in shallow and deep holobionts of the scleractinian coral *S. pistillata*. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**DeSmet:2017:CSD**

- [595] Bart De Smet, Ellen Pape, Torben Riehl, Paulo Bonifácio, Liesbet Colson, and Ann Vanreusel. The community structure of deep-sea macrofauna associated with polymetallic nodules in the eastern part of the Clarion–Clipperton Fracture Zone. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Brewin:2017:UOC**

- [596] Robert J. W. Brewin, Stefano Ciavatta, Shubha Sathyendranath, Thomas Jackson, Gavin Tilstone, Kieran Curran, Ruth L. Airs, Denise Cummings, Vanda Brotas, Emanuele Organelli, Giorgio Dall’Olmo, and Dionysios E. Raitsos. Uncertainty in ocean-color estimates of chlorophyll for phytoplankton groups. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Medina:2017:RPG**

- [597] Luis E. Medina, Craig D. Taylor, Maria G. Pachiadaki, Carlos Henríquez-Castillo, Osvaldo Ulloa, and Virginia P. Edgcomb. A review of protist grazing below the photic zone emphasizing studies of oxygen-depleted water columns and recent applications of in situ approaches. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Quetglas:2017:HSE**

- [598] Antoni Quetglas, Gorka Merino, Javier González, Francesc Ordines, Antoni Garau, Antoni M. Grau, Beatriz Guijarro, Pere Oliver, and Enric Massutí. Harvest strategies for an ecosystem approach to fisheries management in Western Mediterranean demersal fisheries. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Goodwin:2017:DST**

- [599] Kelly D. Goodwin, Luke R. Thompson, Bernardo Duarte, Tim Kahlke, Andrew R. Thompson, João C. Marques, and Isabel Caçador. DNA sequencing as a tool to monitor marine ecological status. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Somes:2017:TDM**

- [600] Christopher J. Somes, Andreas Schmittner, Juan Muglia, and Andreas Oschlies. A three-dimensional model of the marine nitrogen cycle during the Last Glacial Maximum constrained by sedimentary isotopes. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Romagosa:2017:UAN**

- [601] Miriam Romagosa, Irma Cascão, Nathan D. Merchant, Marc O. Lamers, Eva Giacomello, Tiago A. Marques, and Mónica A. Silva. Underwater ambient noise in a baleen whale migratory habitat off the Azores. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Oguz:2017:CMS**

- [602] Temel Oguz. Controls of multiple stressors on the Black Sea fishery. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Kurman:2017:ISV**

- [603] Melissa D. Kurman, Carlos E. Gómez, Samuel E. Georgian, Jay J. Lunden, and Erik E. Cordes. Intra-specific variation reveals potential for adaptation to ocean acidification in a cold-water coral from the Gulf of Mexico. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Li:2017:CID**

- [604] Jun Li, Yuehuan Zhang, Fan Mao, Ying Tong, Ying Liu, Yang Zhang, and Ziniu Yu. Characterization and identification of differentially expressed genes involved in thermal adaptation of the Hong Kong oyster *Crassostrea hongkongensis* by digital gene expression profiling. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Meador:2017:PLR**

- [605] Travis B. Meador, Nadine I. Goldenstein, Alexandra Gogou, Barak Herut, Stella Psarra, Tatiana M. Tsagaraki, and Kai-Uwe Hinrichs. Planktonic lipidome responses to aeolian dust input in low-biomass oligotrophic marine mesocosms. *Frontiers in Marine Science*, 4, April 2017. ISSN 2296-7745.

**Blondeau-Patissier:2017:BOP**

- [606] David Blondeau-Patissier, Thomas Schroeder, Lesley A. Clementson, Vittorio E. Brando, Diane Purcell, Phillip Ford, David K. Williams, David Doxaran, Janet Anstee, Nandika Thapar, and Miguel Tovar-Valencia. Bio-optical properties of two neighboring coastal regions of tropical Northern Australia: The Van Diemen Gulf and Darwin Harbour. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Herrera:2017:LCS**

- [607] Marcela Herrera, Maren Ziegler, Christian R. Voolstra, and Manuel Aranda. Laboratory-cultured strains of the sea anemone *Exaiptasia* reveal distinct bacterial communities. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Turner:2017:CRE**

- [608] Sara M. Turner, Jonathan A. Hare, John P. Manderson, John J. Hoey, David E. Richardson, Christopher L. Sarro, and Ryan Silva. Cooperative research to evaluate an incidental catch distribution forecast. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Pitta:2017:SDD**

- [609] Paraskevi Pitta, Maria Kanakidou, Nikolaos Mihalopoulos, Sylvia Christodoulaki, Panagiotis D. Dimitriou, Constantin Frangoulis, Antonia Giannakourou, Margarita Kagiorgi, Anna Lagaria, Panagiota Nikolaou, Nafsika Papageorgiou, Stella Psarra, Ioulia Santi, Manolis Tsapakis, Anastasia Tsiola, Kalliopi Violaki, and George Petihakis. Saharan dust deposition effects on the microbial food web in the Eastern Mediterranean: a study based on a mesocosm experiment. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**vandenBeld:2017:CWC**

- [610] Inge M. J. van den Beld, Jean-François Bourillet, Sophie Arnaud-Haond, Laurent de Chambure, Jaime S. Davies, Brigitte Guillaumont, Karine Olu, and Lénaïck Menot. Cold-water coral habitats in submarine canyons of the Bay of Biscay. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Wiernasz:2017:LAB**

- [611] Norman Wiernasz, Josiane Cornet, Mireille Cardinal, Marie-France Pilet, Delphine Passerini, and Françoise Leroi. Lactic acid bacteria selection for biopreservation as a part of hurdle technology approach applied on seafood. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Tsiaras:2017:MSM**

- [612] Kostas P. Tsiaras, Sylvia Christodoulaki, George Petihakis, Constantin Frangoulis, and George Triantafyllou. Model simulations of a mesocosm experiment investigating the response of a low nutrient low chlorophyll (LNLC) marine ecosystem to atmospheric deposition events. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Becker:2017:HBD**

- [613] Elizabeth A. Becker, Karin A. Forney, Bruce J. Thayre, Amanda J. Debich, Gregory S. Campbell, Katherine Whitaker, Annie B. Douglas, Anita Gilles, Ryan Hoopes, and John A. Hildebrand. Habitat-based density models for three cetacean species off Southern California illustrate pronounced seasonal differences. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Chust:2017:CMI**

- [614] Guillem Chust, Meike Vogt, Fabio Benedetti, Teofil Nakov, Sébastien Villéger, Anaïs Aubert, Sergio M. Vallina, Damiano Righetti, Fabrice Not, Tristan Biard, Lucie Bittner, Anne-Sophie Benoiston, Lionel Guidi, Ernesto Villarino, Charlie Gaborit, Astrid Cornils, Lucie Buttay, Jean-Olivier Irisson, Marlène Chiarello, Alessandra L. Vallim, Leocadio Blanco-Bercial, Laura Basconi, François Guilhaumon, and Sakina-Dorothee Ayata. Corrigendum: *Mare Incognitum*: a glimpse into future plankton diversity and ecology research. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745. See [560].

**Hatun:2017:DNA**

- [615] Hjálmar Hátún, Bergur Olsen, and Selma Pacariz. The dynamics of the North Atlantic Subpolar Gyre introduces predictability to the breeding success of kittiwakes. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Zhang:2017:SRS**

- [616] Feng Zhang, Chenlin Hu, C. K. Shum, Song Liang, and Jiyoung Lee. Satellite remote sensing of drinking water intakes in Lake Erie for cyanobacteria population using two MODIS-based indicators as a potential tool for toxin tracking. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Belshe:2017:MWU**

- [617] E. Fay Belshe, Miguel A. Mateo, Lucy Gillis, Martin Zimmer, and Mirta Teichberg. Muddy waters: Unintentional consequences of blue carbon research obscure our understanding of organic carbon dynamics in seagrass ecosystems. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**DiCicco:2017:REA**

- [618] Annalisa Di Cicco, Michela Sammartino, Salvatore Marullo, and Rosalia Santoleri. Regional empirical algorithms for an improved identification of phytoplankton functional types and size classes in the Mediterranean Sea using satellite data. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Schulte:2017:HVO**

- [619] David M. Schulte. History of the Virginia oyster fishery, Chesapeake Bay, USA. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.



**Sauzede:2017:EWC**

- [620] Raphaëlle Sauzède, Henry C. Bittig, Hervé Claustre, Orens Pasqueron de Fommervault, Jean-Pierre Gattuso, Louis Legendre, and Kenneth S. Johnson. Estimates of water-column nutrient concentrations and carbonate system parameters in the global ocean: a novel approach based on neural networks. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Wu:2017:PLS**

- [621] Henry C. Wu, Delphine Dissard, Florence Le Cornec, François Thil, Aline Tribollet, Aurelie Moya, and Eric Douville. Primary life stage boron isotope and trace elements incorporation in aposymbiotic *Acropora millepora* coral under ocean acidification and warming. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Mesle:2017:HPC**

- [622] Margaux M. Meslé, Jacob P. Beam, Zackary J. Jay, Brynna Bodle, Eric Bogenschutz, and William P. Inskeep. Hydrogen peroxide cycling in high-temperature acidic geothermal springs and potential implications for oxidative stress response. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Ward:2017:EIR**

- [623] Nicholas D. Ward. Editorial: Integrative research on organic matter cycling across aquatic gradients. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Kheireddine:2017:APB**

- [624] Malika Kheireddine, Mustapha Ouhssain, Hervé Claustre, Julia Uitz, Bernard Gentili, and Burton H. Jones. Assessing pigment-based phytoplankton community distributions in the Red Sea. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Racault:2017:INV**

- [625] Marie-Fanny Racault, Shubha Sathyendranath, Robert J. W. Brewin, Dionysios E. Raitsos, Thomas Jackson, and Trevor Platt. Impact of El Niño variability on oceanic phytoplankton. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Grossowicz:2017:QMT**

- [626] Michal Grossowicz, Dan Tchernov, and Hezi Gildor. A quantitative management tool reflecting impact of nutrient enrichment from mariculture

in the Levantine Basin. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Maes:2017:MBS**

- [627] Thomas Maes, Myra D. Van der Meulen, Lisa I. Devriese, Heather A. Leslie, Arnaud Huvet, Laura Frère, Johan Robbens, and A. Dick Vethaak. Microplastics baseline surveys at the water surface and in sediments of the North-East Atlantic. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Galli:2017:MHW**

- [628] Giovanni Galli, Cosimo Solidoro, and Tomas Lovato. Marine heat waves hazard 3D maps and the risk for low motility organisms in a warming Mediterranean Sea. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Gernez:2017:SAS**

- [629] Pierre Gernez, David Doxaran, and Laurent Barillé. Shellfish aquaculture from space: Potential of Sentinel2 to monitor tide-driven changes in turbidity, chlorophyll concentration and oyster physiological response at the scale of an oyster farm. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Malpica-Cruz:2017:HAT**

- [630] Luis Malpica-Cruz, Wolfgang Haider, Nicola S. Smith, Sergio Fernández-Lozada, and Isabelle M. Côté. Heterogeneous attitudes of tourists toward lionfish in the Mexican Caribbean: Implications for invasive species management. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Laran:2017:CSP**

- [631] Sophie Laran, Matthieu Authier, Olivier Van Canneyt, Ghislain Dorémus, Pierre Watremez, and Vincent Ridoux. A comprehensive survey of pelagic megafauna: Their distribution, densities, and taxonomic richness in the tropical Southwest Indian Ocean. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Hieronymi:2017:ONN**

- [632] Martin Hieronymi, Dagmar Müller, and Roland Doerffer. The OLCI neural network swarm (ONNS): a bio-geo-optical algorithm for open ocean and coastal waters. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Hoshino:2017:FPO**

- [633] Eriko Hoshino, Elizabeth I. van Putten, Wardis Girsang, Budy P. Resosudarmo, and Satoshi Yamazaki. Fishers' perceived objectives of

community-based coastal resource management in the Kei Islands, Indonesia. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**MacLean:2017:CCC**

- [634] Steve A. MacLean, Christopher N. Rooper, and Michael F. Sigler. Corals, canyons, and conservation: Science based fisheries management decisions in the Eastern Bering Sea. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Lovelock:2017:MCE**

- [635] Catherine E. Lovelock, James W. Fourqurean, and James T. Morris. Modeled CO<sub>2</sub> emissions from coastal wetland transitions to other land uses: Tidal marshes, mangrove forests, and seagrass beds. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Janssen:2017:SCF**

- [636] Alexander Janßen, André Wizemann, André Klicpera, Dewi Y. Satari, Hildegard Westphal, and Thomas Mann. Sediment composition and facies of coral reef islands in the Spermonde Archipelago, Indonesia. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Kench:2017:RIE**

- [637] Paul S. Kench and Thomas Mann. Reef island evolution and dynamics: Insights from the Indian and Pacific Oceans and perspectives for the Spermonde Archipelago. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Schlappy:2017:MWM**

- [638] Marie-Lise Schläppy, Jennifer Loder, Jodi Salmond, Alexandra Lea, Angela J. Dean, and Chris M. Roelfsema. Making waves: Marine citizen science for impact. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Kim:2017:CTB**

- [639] Ji Yeun Kim and Jung-Lim Lee. Correlation of total bacterial and *Vibrio* spp. populations between fish and water in the aquaculture system. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Chabanne:2017:IRL**

- [640] Delphine B. H. Chabanne, Hugh Finn, and Lars Bejder. Identifying the relevant local population for environmental impact assessments of mobile marine fauna. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Fifield:2017:EPS**

- [641] David A. Fifield, April Hedd, Stephanie Avery-Gomm, Gregory J. Robertson, Carina Gjerdrum, and Laura McFarlane Tranquilla. Employing predictive spatial models to inform conservation planning for seabirds in the Labrador Sea. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Arafeh-Dalmau:2017:MSP**

- [642] Nur Arafeh-Dalmau, Guillermo Torres-Moye, Georges Seingier, Gabriela Montaña-Moctezuma, and Fiorenza Micheli. Marine spatial planning in a transboundary context: Linking Baja California with California's network of Marine Protected Areas. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Jiang:2017:SRT**

- [643] Weimin Jiang, Benjamin R. Knight, Chris Cornelisen, Paul Barter, and Raphael Kudela. Simplifying regional tuning of MODIS algorithms for monitoring chlorophyll-a in coastal waters. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Stief:2017:FNL**

- [644] Peter Stief, Ann Sofie B. Lundgaard, Álvaro Morales-Ramírez, Bo Thamdrup, and Ronnie N. Glud. Fixed-nitrogen loss associated with sinking zooplankton carcasses in a coastal oxygen minimum zone (Golfo Dulce, Costa Rica). *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Wasmund:2017:DDIb**

- [645] Norbert Wasmund. The diatom/dinoflagellate index as an indicator of ecosystem changes in the Baltic Sea. 2. Historical data for use in determination of good environmental status. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Froehlich:2017:OAK**

- [646] Halley E. Froehlich, Alexandra Smith, Rebecca R. Gentry, and Benjamin S. Halpern. Offshore aquaculture: I know it when I see it. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Sinniger:2017:SDP**

- [647] Frederic Sinniger, Rian Prasetya, Makiko Yorifuji, Pim Bongaerts, and Saki Harii. *Seriatopora* diversity preserved in upper mesophotic coral ecosystems in Southern Japan. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Komoroske:2017:AAG**

- [648] Lisa M. Komoroske, Michael P. Jensen, Kelly R. Stewart, Brian M. Shamblyn, and Peter H. Dutton. Advances in the application of genetics in marine turtle biology and conservation. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Bastari:2017:LEK**

- [649] Azzurra Bastari, Jacopo Beccacece, Francesco Ferretti, Fiorenza Micheli, and Carlo Cerrano. Local ecological knowledge indicates temporal trends of benthic invertebrates species of the Adriatic Sea. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Hoegh-Guldberg:2017:CRE**

- [650] Ove Hoegh-Guldberg, Elvira S. Poloczanska, William Skirving, and Sophie Dove. Coral reef ecosystems under climate change and ocean acidification. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Golden:2017:DAS**

- [651] Christopher D. Golden, Katherine L. Seto, Madan M. Dey, Oai L. Chen, Jessica A. Gephart, Samuel S. Myers, Matthew Smith, Bapu Vaitla, and Edward H. Allison. Does aquaculture support the needs of nutritionally vulnerable nations? *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Vernet:2017:MPC**

- [652] Maria Vernet, Tammi L. Richardson, Katja Metfies, Eva-Maria Nöthig, and Ilka Peeken. Models of plankton community changes during a warm water anomaly in Arctic waters show altered trophic pathways with minimal changes in carbon export. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Page:2017:NCM**

- [653] Heather N. Page, Travis A. Courtney, Andrew Collins, Eric H. De Carlo, and Andreas J. Andersson. Net community metabolism and seawater carbonate chemistry scale non-intuitively with coral cover. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Brase:2017:HRM**

- [654] Lisa Brase, Hermann W. Bange, Ralf Lendt, Tina Sanders, and Kirstin Dähnke. High resolution measurements of nitrous oxide (N<sub>2</sub>O) in the Elbe Estuary. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Kovac:2017:EFA**

- [655] Žarko Kovač, Trevor Platt, Suzana Antunović, Shubha Sathyendranath, Mira Morović, and Charles Gallegos. Extended formulations and analytic solutions for watercolumn production integrals. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Karasalo:2017:ESS**

- [656] Ilkka Karasalo, Martin Östberg, Peter Sigray, Jukka-Pekka Jalkanen, Lasse Johansson, Mattias Liefvendahl, and Rickard Bensow. Estimates of source spectra of ships from long term recordings in the Baltic Sea. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Engel:2017:OVS**

- [657] Anja Engel, Hermann W. Bange, Michael Cunliffe, Susannah M. Burrows, Gernot Friedrichs, Luisa Galgani, Hartmut Herrmann, Norbert Hertkorn, Martin Johnson, Peter S. Liss, Patricia K. Quinn, Markus Schartau, Alexander Soloviev, Christian Stolle, Robert C. Upstill-Goddard, Manuela van Pinxteren, and Birthe Zäncker. The ocean's vital skin: Toward an integrated understanding of the sea surface microlayer. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Busch:2017:BCV**

- [658] Kathrin Busch, Sonja Endres, Morten H. Iversen, Jan Michels, Eva-Maria Nöthig, and Anja Engel. Bacterial colonization and vertical distribution of marine gel particles (TEP and CSP) in the Arctic Fram Strait. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Fossi:2017:PDO**

- [659] Maria Cristina Fossi, Teresa Romeo, Matteo Bainsi, Cristina Panti, Letizia Marsili, Tommaso Campani, Simonepietro Canese, François Galgani, Jean-Noël Druon, Sabina Airoidi, Stefano Taddei, Maria Fattorini, Carlo Brandini, and Chiara Lapucci. Plastic debris occurrence, convergence areas and fin whales feeding ground in the Mediterranean Marine Protected Area pelagos sanctuary: a modeling approach. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Coello-Camba:2017:TTP**

- [660] Alexandra Coello-Camba and Susana Agustí. Thermal thresholds of phytoplankton growth in polar waters and their consequences for a warming polar ocean. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Mevenkamp:2017:IST**

- [661] Lisa Mevenkamp, Tanja Stratmann, Katja Guilini, Leon Moodley, Dick van Oevelen, Ann Vanreusel, Stig Westerlund, and Andrew K. Sweetman. Impaired short-term functioning of a benthic community from a deep Norwegian fjord following deposition of mine tailings and sediments. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Rudd:2017:WDJ**

- [662] Murray A. Rudd. What a decade (2006–15) of journal abstracts can tell us about trends in ocean and coastal sustainability challenges and solutions. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**DeBakker:2017:CLT**

- [663] Didier M. De Bakker, Erik H. Meesters, Rolf P. M. Bak, Gerard Nieuwland, and Fleur C. Van Duyl. Corrigendum: Long-term shifts in coral communities on shallow to deep reef slopes of Curaçao and Bonaire: Are there any winners? *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745. See [448].

**Rohe:2017:MDL**

- [664] Janne R. Rohe, Shankar Aswani, Achim Schlüter, and Sebastian C. A. Ferse. Multiple drivers of local (non-) compliance in community-based marine resource management: Case studies from the South Pacific. *Frontiers in Marine Science*, 4, May 2017. ISSN 2296-7745.

**Robson:2017:UPT**

- [665] Natalie A. Robson, Yasha Hetzel, Scott Whiting, Sarath Wijeratne, Charitha B. Pattiaratchi, Philip Withers, and Michele Thums. Use of particle tracking to determine optimal release dates and locations for rehabilitated neonate sea turtles. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Novaczek:2017:LCS**

- [666] Emilie Novaczek, Victoria Howse, Christina Pretty, Rodolphe Devillers, Evan Edinger, and Alison Copeland. Limited contribution of small Marine Protected Areas to regional biodiversity: The example of a small Canadian no-take MPA. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**vanderSchaar:2017:AAS**

- [667] Mike van der Schaar, Anja J. Haugerud, Jürgen Weissenberger, Steffen De Vreese, and Michel André. Arctic anthropogenic sound contributions

from seismic surveys during summer 2013. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Paulsen:2017:CBH**

- [668] Maria L. Paulsen, Sophia E. B. Nielsen, Oliver Müller, Eva F. Møller, Colin A. Stedmon, Thomas Juul-Pedersen, Stiig Markager, Mikael K. Sejr, Antonio Delgado Huertas, Aud Larsen, and Mathias Middelboe. Carbon bioavailability in a High Arctic fjord influenced by glacial meltwater, NE Greenland. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Rubelmann:2017:CEB**

- [669] Haydn Rubelmann, David J. Karlen, and James R. Garey. Changes in eukaryotic and bacterial communities along a 120 m transect associated with a shallow marine hydrothermal vent. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745. See corrigendum [879].

**Whitby:2017:CSC**

- [670] Hannah Whitby, James T. Hollibaugh, and Constant M. G. van den Berg. Chemical speciation of copper in a salt marsh estuary and bioavailability to Thaumarchaeota. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Foley:2017:SLT**

- [671] James R. Foley and Miwa Takahashi. Shell lip thickness is the most reliable proxy to sexual maturity in queen conch (*Lobatus gigas*) of Port Honduras Marine Reserve, Belize; informing management to reduce the risk of growth overfishing. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Panagopoulou:2017:CSN**

- [672] Aliko Panagopoulou, Zoë A. Meletis, Dimitris Margaritoulis, and James R. Spotila. Caught in the same net? Small-scale fishermen's perceptions of fisheries interactions with sea turtles and other protected species. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Fabinyi:2017:CTP**

- [673] Michael Fabinyi, Kate Barclay, and Hampus Eriksson. Chinese trader perceptions on sourcing and consumption of endangered seafood. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745. See corrigendum [1620].



**vanWoesik:2017:RTS**

- [674] Robert van Woesik and Kelly R. McCaffrey. Repeated thermal stress, shading, and directional selection in the Florida Reef Tract. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Butterworth:2017:EPM**

- [675] Andy Butterworth and Mark P. Simmonds. Editorial: People — marine mammal interactions. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Rozema:2017:ADC**

- [676] Patrick D. Rozema, Gemma Kulk, Michiel P. Veldhuis, Anita G. J. Buma, Michael P. Meredith, and Willem H. van de Poll. Assessing drivers of coastal primary production in Northern Marguerite Bay, Antarctica. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Perry:2017:RHT**

- [677] Chris T. Perry, Kyle M. Morgan, and Robert T. Yarlett. Reef habitat type and spatial extent as interacting controls on platform-scale carbonate budgets. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Chen:2017:SVM**

- [678] Mianrun Chen, Hongbin Liu, and Bingzhang Chen. Seasonal variability of mesozooplankton feeding rates on phytoplankton in subtropical coastal and estuarine waters. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Dutta:2017:MMB**

- [679] Manab K. Dutta, Thomas S. Bianchi, and Sandip K. Mukhopadhyay. Mangrove methane biogeochemistry in the Indian Sundarbans: a proposed budget. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Macusi:2017:LEK**

- [680] Edison D. Macusi, Neil Angelo S. Abreo, and Ricardo P. Babaran. Local Ecological Knowledge (LEK) on fish behavior around anchored FADs: the case of tuna purse seine and ringnet fishers from Southern Philippines. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Moisan:2017:SOP**

- [681] Tiffany A. Moisan, Kay M. Ruffy, John R. Moisan, and Matthew A. Linkswiler. Satellite observations of phytoplankton functional type spa-

tial distributions, phenology, diversity, and ecotones. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Snyder:2017:OAS**

- [682] Jordan Snyder, Emmanuel Boss, Ryan Weatherbee, Andrew C. Thomas, Damian Brady, and Carter Newell. Oyster aquaculture site selection using Landsat 8-derived sea surface temperature, turbidity, and chlorophyll a. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Politikos:2017:MFD**

- [683] Dimitrios V. Politikos, Christos Ioakeimidis, George Papatheodorou, and Kostas Tsiaras. Modeling the fate and distribution of floating litter particles in the Aegean Sea (E. Mediterranean). *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Hopwood:2017:CBF**

- [684] Mark J. Hopwood, Antony J. Birchill, Martha Gledhill, Eric P. Achterberg, Jessica K. Klar, and Angela Milne. A comparison between four analytical methods for the measurement of Fe(II) at nanomolar concentrations in coastal seawater. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Russo:2017:HAF**

- [685] Tommaso Russo, Isabella Bitetto, Pierluigi Carbonara, Roberto Carlucci, Lorenzo D'Andrea, Maria T. Facchini, Giuseppe Lembo, Porzia Maiorano, Letizia Sion, Maria T. Spedicato, Angelo Tursi, and Stefano Cataudella. A holistic approach to fishery management: Evidence and insights from a Central Mediterranean case study (Western Ionian Sea). *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Mentges:2017:FMD**

- [686] Andrea Mentges, Christoph Feenders, Maren Seibt, Bernd Blasius, and Thorsten Dittmar. Functional molecular diversity of marine dissolved organic matter is reduced during degradation. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Vielmini:2017:UMG**

- [687] Ilaria Vielmini, Allison L. Perry, and María José Cornax. Untying the Mediterranean Gordian Knot: a Twenty First Century challenge for fisheries management. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Weigelt:2017:GPS**

- [688] Ronny Weigelt, Heike Lippert, Ulf Karsten, and Ralf Bastrop. Genetic population structure and demographic history of the widespread common shipworm *Teredo navalis* Linnaeus 1758 (Mollusca: Bivalvia: Teredinidae) in European waters inferred from mitochondrial COI sequence data. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Marley:2017:STV**

- [689] Sarah A. Marley, Christine Erbe, Chandra P. Salgado Kent, Miles J. G. Parsons, and Iain M. Parnum. Spatial and temporal variation in the acoustic habitat of bottlenose dolphins (*Tursiops aduncus*) within a highly urbanized estuary. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Baldrighi:2017:ERB**

- [690] Elisa Baldrighi, Donato Giovannelli, Giuseppe D’Errico, Marc Lavaleye, and Elena Manini. Exploring the relationship between macrofaunal biodiversity and ecosystem functioning in the deep sea. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Broch:2017:SDD**

- [691] Ole J. Broch, Ragnhild L. Daae, Ingrid H. Ellingsen, Raymond Nepstad, Eldar Å. Bendiksen, Jenny L. Reed, and Gunnar Senneset. Spatiotemporal dispersal and deposition of fish farm wastes: a model study from Central Norway. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Hoarfrost:2017:HEE**

- [692] Adrienne Hoarfrost and Carol Arnosti. Heterotrophic extracellular enzymatic activities in the Atlantic Ocean follow patterns across spatial and depth regimes. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Tommasi:2017:MAC**

- [693] Desiree Tommasi, Charles A. Stock, Michael A. Alexander, Xiaosong Yang, Anthony Rosati, and Gabriel A. Vecchi. Multi-annual climate predictions for fisheries: an assessment of skill of sea surface temperature forecasts for large marine ecosystems. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Zhang:2017:ESC**

- [694] Shuwen Zhang, Hongbin Liu, Ying Ke, and Beatrice Li. Effect of the silica content of diatoms on protozoan grazing. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Losa:2017:SEH**

- [695] Svetlana N. Losa, Mariana A. Soppa, Tilman Dinter, Aleksandra Wolanin, Robert J. W. Brewin, Annick Bricaud, Julia Oelker, Ilka Peeken, Bernard Gentili, Vladimir Rozanov, and Astrid Bracher. Synergistic exploitation of hyper- and multi-spectral precursor sentinel measurements to determine phytoplankton functional types (SynSenPFT). *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745. See corrigendum [748].

**Fortibuoni:2017:CAL**

- [696] Tomaso Fortibuoni, Otello Giovanardi, Fabio Pranovi, Saša Raicevich, Cosimo Solidoro, and Simone Libralato. Corrigendum: Analysis of long-term changes in a Mediterranean marine ecosystem based on fishery landings. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745. See [525].

**Pape:2017:LST**

- [697] Ellen Pape, Tania N. Bezerra, Freija Hauquier, and Ann Vanreusel. Limited spatial and temporal variability in meiofauna and nematode communities at distant but environmentally similar sites in an area of interest for deep-sea mining. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Buckley:2017:TTV**

- [698] Paul J. Buckley, John K. Pinnegar, Suzanne J. Painting, Geraldine Terry, Jason Chilvers, Irene Lorenzoni, Stefan Gelcich, and Carlos M. Duarte. Ten thousand voices on marine climate change in Europe: Different perceptions among demographic groups and nationalities. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Gillis:2017:AUR**

- [699] Lucy G. Gillis, Maike Paul, and Tjeerd Bouma. Ammonium uptake rates in a seagrass bed under combined waves and currents. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Hameed:2017:IME**

- [700] Sarah O. Hameed, Leslie A. Cornick, Rodolphe Devillers, and Lance E. Morgan. Incentivizing more effective Marine Protected Areas with the global ocean refuge system (GLORES). *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Voss:2017:EEF**

- [701] Rudi Voss, Martin F. Quaas, Max T. Stoeven, Jörn O. Schmidt, Maciej T. Tomczak, and Christian Möllmann. Ecological–economic fisheries management advice — quantification of potential benefits for the case of the Eastern Baltic cod fishery. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Tsagaraki:2017:ADE**

- [702] Tatiana M. Tsagaraki, Barak Herut, Eyal Rahav, Ilana R. Berman Frank, Anastasia Tsiola, Manolis Tsapakis, Antonia Giannakourou, Alexandra Gogou, Christos Panagiotopoulos, Kalliopi Violaki, Stella Psarra, Anna Lagaria, Epaminondas D. Christou, Nafsika Papageorgiou, Sultana Zervoudaki, Ma L. Fernandez de Puelles, Nikolaos Nikolioudakis, Travis B. Meador, Tsuneo Tanaka, Maria L. Pedrotti, Michael D. Krom, and Paraskevi Pitta. Atmospheric deposition effects on plankton communities in the Eastern Mediterranean: a mesocosm experimental approach. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Abadie:2017:CCR**

- [703] Luis M. Abadie, Elisa Sainz de Murieta, and Ibon Galarraga. Corrigendum: Climate risk assessment under uncertainty: an application to main European coastal cities. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745. See [466].

**Bach:2017:SRT**

- [704] Lydia L. Bach, Jennifer J. Freer, and Nicholas A. Kamenos. In situ response of tropical coralline algae to a novel thermal regime. *Frontiers in Marine Science*, 4, June 2017. ISSN 2296-7745.

**Leniz:2017:DTL**

- [705] Bárbara Léniz, Alejandro A. Murillo, Salvador Ramírez-Flandes, and Osvaldo Ulloa. Diversity and transcriptional levels of RuBisCO form II of sulfur-oxidizing  $\gamma$ -proteobacteria in coastal-upwelling waters with seasonal anoxia. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Grottoli:2017:PBR**

- [706] Andréa G. Grottoli, Dan Tchernov, and Gidon Winters. Physiological and biogeochemical responses of super-corals to thermal stress from the Northern Gulf of Aqaba, Red Sea. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Meyerink:2017:IAI**

- [707] Scott Meyerink, Michael J. Ellwood, William A. Maher, and Robert Strzepek. Iron availability influences silicon isotope fractionation in two Southern Ocean diatoms (*Proboscia inermis* and *Eucampia antarctica*) and a coastal diatom (*Thalassiosira pseudonana*). *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745. See corrigendum [770].

**Blanchet:2017:QSQ**

- [708] Elodie Blanchet, Soizic Prado, Didier Stien, Jocivânia Oliveira da Silva, Yoan Ferandin, Nicole Batailler, Laurent Intertaglia, Alexandre Escargueil, and Raphaël Lami. Quorum sensing and quorum quenching in the Mediterranean seagrass *Posidonia oceanica* microbiota. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Tyson:2017:NBL**

- [709] Reny B. Tyson, Wendy E. D. Piniak, Camila Domit, David Mann, Michael Hall, Douglas P. Nowacek, and Mariana M. P. B. Fuentes. Novel bio-logging tool for studying fine-scale behaviors of marine turtles in response to sound. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Vazquez-Luis:2017:PNM**

- [710] Maite Vázquez-Luis, Elvira Álvarez, Agustín Barrajon, José R. García-March, Amalia Grau, Iris E. Hendriks, Santiago Jiménez, Diego Kersting, Diego Moreno, Marta Pérez, Juan M. Ruiz, Jordi Sánchez, Antonio Villalba, and Salud Deudero. S.O.S. *Pinna nobilis*: a mass mortality event in Western Mediterranean Sea. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Letsiou:2017:SPE**

- [711] Sophia Letsiou, Katerina Kalliampakou, Konstantinos Gardikis, Lalia Mantecon, Carlos Infante, Marianna Chatzikonstantinou, Nikolaos E. Labrou, and Emmanouil Fletmetakis. Skin protective effects of *Nanochloropsis gaditana* extract on H<sub>2</sub>O<sub>2</sub>-Stressed human dermal fibroblasts. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Apprill:2017:MAM**

- [712] Amy Apprill. Marine animal microbiomes: Toward understanding host-microbiome interactions in a changing ocean. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Bond:2017:PNM**

- [713] Emily P. Bond and Michael C. James. Pre-nesting movements of leatherback sea turtles, *Dermochelys coriacea*, in the Western Atlantic. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Morgan:2017:NTZ**

- [714] Kyle M. Morgan, Chris T. Perry, Jamie A. Johnson, and Scott G. Smithers. Nearshore turbid-zone corals exhibit high bleaching tolerance on the Great Barrier Reef following the 2016 Ocean Warming Event. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Hoover:2017:CAT**

- [715] Aimee L. Hoover, George L. Shillinger, Jennifer Swiggs, and Helen Bailey. Comparing acoustic tag attachments designed for mobile tracking of hatchling sea turtles. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Chan:2017:CFC**

- [716] Neil C. S. Chan, Daniel Wangpraseurt, Michael Kühn, and Sean R. Connolly. Corrigendum: Flow and coral morphology control coral surface pH: Implications for the effects of ocean acidification. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745. See [214].

**Raykov:2017:FMB**

- [717] Violin S. Raykov and Ertug Duzgunes. Fisheries management in the Black Sea — pros and cons. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Miller:2017:MIT**

- [718] Cale A. Miller, Sylvia Yang, and Brooke A. Love. Moderate increase in TCO<sub>2</sub> enhances photosynthesis of seagrass *Zostera japonica*, but not *Zostera marina*: Implications for acidification mitigation. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Hoppe:2017:FRF**

- [719] Clara J. M. Hoppe, Nina Schuback, David M. Semeniuk, Maria T. Maldonado, and Björn Rost. Functional redundancy facilitates resilience of subarctic phytoplankton assemblages toward ocean acidification and high irradiance. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Giannoulaki:2017:HSM**

- [720] Marianna Giannoulaki, Maria M. Pyrounaki, Jean-Herve Bourdeix, Lotfi Ben Abdallah, Angelo Bonanno, Gualtiero Basilone, Magdalena Igle-

sias, Ana Ventero, Andrea De Felice, Iole Leonori, Vasilis D. Valavanis, Athanassios Machias, and Claire Sarau. Habitat suitability modeling to identify the potential nursery grounds of the Atlantic mackerel and its relation to oceanographic conditions in the Mediterranean Sea. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Sardelis:2017:TSR**

- [721] Stephanie Sardelis, Samantha Oester, and Max Liboiron. Ten strategies to reduce gender inequality at scientific conferences. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**OCallaghan:2017:ESR**

- [722] Joanne M. Ø'Callaghan and Craig L. Stevens. Evaluating the surface response of discharge events in a New Zealand Gulf-ROFI. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Reisinger:2017:ESS**

- [723] Anthony Reisinger, James C. Gibeaut, and Phillippe E. Tissot. Estuarine suspended sediment dynamics: Observations derived from over a decade of satellite data. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Smith:2017:DIC**

- [724] Nicola S. Smith, Isabelle M. Côté, Lourdes Martinez-Estevéz, Edward J. Hind-Ozan, Angela L. Quiros, Nathan Johnson, Stephanie J. Green, Leslie Cornick, David Shiffman, Luis Malpica-Cruz, Allison Gleason Besch, and Nikita Shiel-Rolle. Diversity and inclusion in conservation: a proposal for a marine diversity network. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Wilson:2017:NDP**

- [725] Rachel M. Wilson, Reny B. Tyson, James A. Nelson, Brian C. Balmer, Jeffrey P. Chanton, and Douglas P. Nowacek. Niche differentiation and prey selectivity among common bottlenose dolphins (*Tursiops truncatus*) sighted in St. George Sound, Gulf of Mexico. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Rousseaux:2017:FOC**

- [726] Cecile S. Rousseaux and Watson W. Gregg. Forecasting ocean chlorophyll in the Equatorial Pacific. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.



**Alexander:2017:RTP**

- [727] LoriKim Alexander, Andrews Agyekumhene, and Phil Allman. The role of taboos in the protection and recovery of sea turtles. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Bergo:2017:PCB**

- [728] Natascha M. Bergo, Camila N. Signori, André M. Amado, Frederico P. Brandini, and Vivian H. Pellizari. The partitioning of carbon biomass among the pico- and nano-plankton community in the South Brazilian Bight during a strong summer intrusion of South Atlantic central water. *Frontiers in Marine Science*, 4, July 2017. ISSN 2296-7745.

**Queiroz:2017:CFT**

- [729] Nuno Queiroz, Catarina Vila-Pouca, Ana Couto, Emily J. Southall, Gonzalo Mucientes, Nicolas E. Humphries, and David W. Sims. Convergent foraging tactics of marine predators with different feeding strategies across heterogeneous ocean environments. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Bosch-Belmar:2017:CSP**

- [730] Mar Bosch-Belmar, Giacomo Milisenda, Albert Giron, Valentina Taurisano, Stefano Accoroni, Cecilia Totti, Stefano Piraino, and Verónica Fuentes. Consequences of stinging plankton blooms on finfish mariculture in the Mediterranean Sea. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Casas:2017:MRS**

- [731] Laura Casas, John K. Pearman, and Xabier Irigoien. Metabarcoding reveals seasonal and temperature-dependent succession of zooplankton communities in the Red Sea. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Han:2017:MRM**

- [732] Danxiang Han, Jing Jia, Jing Li, Milton Sommerfeld, Jian Xu, and Qiang Hu. Metabolic remodeling of membrane glycerolipids in the microalga *Nannochloropsis oceanica* under nitrogen deprivation. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Chapple:2017:VDT**

- [733] Dylan Chapple and Iryna Dronova. Vegetation development in a tidal marsh restoration project during a historic drought: a remote sensing approach. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Colloca:2017:RTI**

- [734] Francesco Colloca, Giuseppe Scarcella, and Simone Libralato. Recent trends and impacts of fisheries exploitation on Mediterranean stocks and ecosystems. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Perez-Ruzafa:2017:NEA**

- [735] Angel Pérez-Ruzafa, José A. García-Charton, and Concepción Marcos. North East Atlantic vs. Mediterranean Marine Protected Areas as fisheries management tool. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Navarro:2017:RST**

- [736] Gabriel Navarro, Pablo Almaraz, Isabel Caballero, Águeda Vázquez, and Isabel E. Huertas. Reproduction of spatio-temporal patterns of major Mediterranean phytoplankton groups from remote sensing OC-CCI data. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Blanco-Ameijeiras:2017:LTA**

- [737] Sonia Blanco-Ameijeiras, Claudia Cosio, and Christel S. Hassler. Long-term acclimation to iron limitation reveals new insights in metabolism regulation of *Synechococcus* sp. PCC7002. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Joydas:2017:MCS**

- [738] Thadickal V. Joydas, Mohammad A. Qurban, Angel Borja, Periyadan K. Krishnakumar, and Abdulaziz Al-Suwailem. Macrobenthic community structure in the Northwestern Arabian Gulf, twelve years after the 1991 oil spill. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Otaño-Cruz:2017:ECW**

- [739] Abimarie Otaño-Cruz, Alfredo A. Montañez-Acuña, Valeria Torres-López, Elix M. Hernández-Figueroa, and Edwin A. Hernández-Delgado. Effects of changing weather, oceanographic conditions, and land uses on spatio-temporal variation of sedimentation dynamics along near-shore coral reefs. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Tyaquica:2017:APS**

- [740] Pedro Tyaquicã, Doris Veleza, Nathalie Lefèvre, Moacyr Araujo, Carlos Noriega, Guy Caniaux, Jacques Servain, and Thiago Silva. Amazon plume salinity response to ocean teleconnections. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Evers-King:2017:VIO**

- [741] Hayley Evers-King, Victor Martinez-Vicente, Robert J. W. Brewin, Giorgio Dall’Olmo, Anna E. Hickman, Thomas Jackson, Tihomir S. Kostadinov, Hajo Krasemann, Hubert Loisel, Rüdiger Röttgers, Shovonlal Roy, Dariusz Stramski, Sandy Thomalla, Trevor Platt, and Shubha Sathyendranath. Validation and intercomparison of ocean color algorithms for estimating particulate organic carbon in the oceans. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Baltar:2017:FSO**

- [742] Federico Baltar and Javier Arístegui. Fronts at the surface ocean can shape distinct regions of microbial activity and community assemblages down to the bathypelagic zone: The Azores Front as a case study. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Satinsky:2017:PBA**

- [743] Brandon M. Satinsky, Christa B. Smith, Shalabh Sharma, Nicholas D. Ward, Alex V. Krusche, Jeffrey E. Richey, Patricia L. Yager, Byron C. Crump, and Mary Ann Moran. Patterns of bacterial and archaeal gene expression through the Lower Amazon River. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Gledhill:2017:EMC**

- [744] Martha Gledhill and Loes J. A. Gerringa. The effect of metal concentration on the parameters derived from complexometric titrations of trace elements in seawater — a model study. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Grand:2017:LCP**

- [745] Maxime M. Grand, Geraldine S. Clinton-Bailey, Alexander D. Beaton, Allison M. Schaap, Thomas H. Johengen, Mario N. Tamburri, Douglas P. Connelly, Matthew C. Mowlem, and Eric P. Achterberg. A lab-on-chip phosphate analyzer for long-term in situ monitoring at fixed observatories: Optimization and performance evaluation in estuarine and oligotrophic coastal waters. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Lathrop:2017:RMA**

- [746] Richard G. Lathrop, Jay Odell, Tony MacDonald, Karl Vilacoba, John Bognar, Jim Trimble, Chris Bruce, Gwynn Crichton, Drew Seminara, Jeanne Herb, and Matt Campo. The role of Mid-Atlantic Ocean Data Portal in supporting ocean planning. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Oester:2017:WCM**

- [747] Samantha Oester, John A. Cigliano, Edward J. Hind-Ozan, and E. Christien Michael Parsons. Why conferences matter — an illustration from the International Marine Conservation Congress. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Losa:2017:CSE**

- [748] Svetlana N. Losa, Mariana A. Soppa, Tilman Dinter, Aleksandra Wolanin, Robert J. W. Brewin, Annick Bricaud, Julia Oelker, Ilka Peeken, Bernard Gentili, Vladimir Rozanov, and Astrid Bracher. Corrigendum: Synergistic exploitation of hyper- and multi-spectral precursor sentinel measurements to determine phytoplankton functional types (SynSenPFT). *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745. See [695].

**Rothig:2017:DBM**

- [749] Till Röthig, Anna Roik, Lauren K. Yum, and Christian R. Voolstra. Distinct bacterial microbiomes associate with the deep-sea coral *Eguchipsammia fistula* from the Red Sea and from aquaria settings. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Swimmer:2017:STB**

- [750] Yonat Swimmer, Alexis Gutierrez, Keith Bigelow, Caren Barceló, Barbara Schroeder, Kenneth Keene, Keith Shattenkirk, and Daniel G. Foster. Sea turtle bycatch mitigation in U.S. longline fisheries. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Rakocinski:2017:TME**

- [751] Chet F. Rakocinski and Kelsey Burns Gillam. Temperature-modulated expression of allometric respiration strategies supports a metabolic scaling rule. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**McDevitt-Irwin:2017:RCA**

- [752] Jamie M. McDevitt-Irwin, Julia K. Baum, Melissa Garren, and Rebecca L. Vega Thurber. Responses of coral-associated bacterial communities to local and global stressors. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Bean:2017:RTU**

- [753] Tim P. Bean, Naomi Greenwood, Rachel Beckett, Lauren Biermann, John P. Bignell, Jan L. Brant, Gordon H. Copp, Michelle J. Devlin, Stephen Dye, Stephen W. Feist, Liam Fernand, Dean Foden, Kieran

Hyder, Chris M. Jenkins, Jeroen van der Kooij, Silke Kröger, Sven Kupschus, Clare Leech, Kinson S. Leonard, Christopher P. Lynam, Brett P. Lyons, Thomas Maes, E. E. Manuel Nicolaus, Stephen J. Malcolm, Paul McIlwaine, Nathan D. Merchant, Lucille Paltriguera, David J. Pearce, Sophie G. Pitois, Paul D. Stebbing, Bryony Townhill, Suzanne Ware, Oliver Williams, and David Righton. A review of the tools used for marine monitoring in the UK: Combining historic and contemporary methods with modeling and socioeconomics to fulfill legislative needs and scientific ambitions. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Pitta:2017:EIA**

- [754] Paraskevi Pitta, Barak Herut, and Tatiana M. Tsagaraki. Editorial: Impact of aerosols (Saharan dust and mixed) on the East Mediterranean oligotrophic ecosystem, results from experimental studies. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Lezama-Ochoa:2017:BHC**

- [755] Nerea Lezama-Ochoa, Hilario Murua, Martin Hall, Marlon Román, Jon Ruiz, Nick Vogel, Ainhoa Caballero, and Igor Sancristobal. Biodiversity and habitat characteristics of the bycatch assemblages in fish aggregating devices (FADs) and school sets in the Eastern Pacific Ocean. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Mazel:2017:MDC**

- [756] Charles Mazel. Method for determining the contribution of fluorescence to an optical signature, with implications for postulating a visual function. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Radecker:2017:SRN**

- [757] Nils Rådecker, Claudia Pogoreutz, Christian Wild, and Christian R. Woolstra. Stimulated respiration and net photosynthesis in *Cassiopeia* sp. during glucose enrichment suggests in hospite CO<sub>2</sub> limitation of algal endosymbionts. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**OLeary:2017:SRM**

- [758] Bethan C. O’Leary and Callum M. Roberts. The structuring role of marine life in open ocean habitat: Importance to international policy. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Szabo:2017:NIA**

- [759] Milán Szabó, Anthony W. D. Larkum, David J. Suggett, Imre Vass, László Sass, Barry Osmond, Alonso Zavafer, Peter J. Ralph, and Wah S.

Chow. Non-intrusive assessment of photosystem II and photosystem I in whole coral tissues. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Kegler:2017:BBC**

- [760] Pia Kegler, Hauke F. Kegler, Astrid Gärdes, Sebastian C. A. Ferse, Muhammad Lukman, Yustian R. Alfiansah, Christiane Hassenrück, and Andreas Kunzmann. Bacterial biofilm communities and coral larvae settlement at different levels of anthropogenic impact in the Spermonde Archipelago, Indonesia. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Zark:2017:OAE**

- [761] Maren Zark, Nadine K. Broda, Thomas Hornick, Hans-Peter Grossart, Ulf Riebesell, and Thorsten Dittmar. Ocean acidification experiments in large-scale mesocosms reveal similar dynamics of dissolved organic matter production and biotransformation. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Xi:2017:PGI**

- [762] Hongyan Xi, Martin Hieronymi, Hajo Krasemann, and Rüdiger Röttgers. Phytoplankton group identification using simulated and in situ hyperspectral remote sensing reflectance. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Zweifler:2017:SAC**

- [763] Adi Zweifler, Derya Akkaynak, Tali Mass, and Tali Treibitz. In situ analysis of coral recruits using fluorescence imaging. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Lehrter:2017:SDW**

- [764] John C. Lehrter and Chengfeng Le. Satellite derived water quality observations are related to river discharge and nitrogen loads in Pensacola Bay, Florida. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Guraslan:2017:UIE**

- [765] Ceren Guraslan, Bettina A. Fach, and Temel Oguz. Understanding the impact of environmental variability on anchovy overwintering migration in the Black Sea and its implications for the fishing industry. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Carlson:2017:BBM**

- [766] Daniel F. Carlson, Wieter Boone, Lorenz Meire, Jakob Abermann, and Søren Rysgaard. Bergy bit and melt water trajectories in Godthåbsfjord (SW Greenland) observed by the expendable ice tracker. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**McInnes:2017:DMM**

- [767] Julie C. McInnes, Simon N. Jarman, Mary-Anne Lea, Ben Raymond, Bruce E. Deagle, Richard A. Phillips, Paulo Catry, Andrew Stanworth, Henri Weimerskirch, Alejandro Kusch, Michaël Gras, Yves Cherel, Dale Maschette, and Rachael Alderman. DNA metabarcoding as a marine conservation and management tool: a circumpolar examination of fishery discards in the diet of threatened albatrosses. *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745.

**Lefevre:2017:NHA**

- [768] Nathalie Lefèvre, Manuel Flores Montes, Felipe L. Gaspar, Carlos Rocha, Shan Jiang, Moacyr C. De Araújo, and J. Severino Pino Ibánhez. Net heterotrophy in the Amazon Continental Shelf changes rapidly to a sink of CO<sub>2</sub> in the Outer Amazon Plume. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Jessen:2017:MMC**

- [769] Sabine Jessen, Lance E. Morgan, Juan E. Bezaury-Creel, Alexandra Barron, Rhona Govender, Elizabeth P. Pike, Vienna R. Saccomanno, and Russell A. Moffitt. Measuring MPAs in continental North America: How well protected are the ocean estates of Canada, Mexico, and the USA? *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Meyerink:2017:CIA**

- [770] Scott Meyerink, Michael J. Ellwood, William A. Maher, and Robert Strzepak. Corrigendum: Iron availability influences silicon isotope fractionation in two Southern Ocean diatoms (*Proboscia inermis* and *Eucampia antarctica*) and a coastal diatom (*Thalassiosira pseudonana*). *Frontiers in Marine Science*, 4, August 2017. ISSN 2296-7745. See [707].

**Katlein:2017:NRO**

- [771] Christian Katlein, Martin Schiller, Hans J. Belter, Veronica Coppolaro, David Wenslandt, and Marcel Nicolaus. A new remotely operated sensor platform for interdisciplinary observations under sea ice. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Tam:2017:CAO**

- [772] Jamie C. Tam, Jason S. Link, Scott I. Large, Kelly Andrews, Kevin D. Friedland, Jamison Gove, Elliott Hazen, Kirstin Holsman, Mandy Karnauskas, Jameal F. Samhuri, Rebecca Shuford, Nick Tomilieri, and Stephani Zador. Comparing apples to oranges: Common trends and thresholds in anthropogenic and environmental pressures across multiple marine ecosystems. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Jackson:2017:ESM**

- [773] Thomas Jackson, Shubha Sathyendranath, and Trevor Platt. An exact solution for modeling photoacclimation of the carbon-to-chlorophyll ratio in phytoplankton. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Moore:2017:LPP**

- [774] Abigail M. Moore, Rohani Ambo-Rappe, and Yusuf Ali. “The lost princess (putri duyung)” of the small islands: Dugongs around Sulawesi in the Anthropocene. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Shraim:2017:EEA**

- [775] Rasha Shraim, Mame M. Dieng, Manikandan Vinu, Grace Vaughan, Dain McParland, Youssef Idaghdour, and John A. Burt. Environmental extremes are associated with dietary patterns in Arabian Gulf Reef fishes. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Cherif:2017:OFA**

- [776] Mehdi Cherif, Carolyn Faithfull, Junwen Guo, Cédric L. Meunier, Judith Sitters, Wojciech Uszko, and Francisco Rivera Vasconcelos. An operational framework for the advancement of a molecule-to-biosphere stoichiometry theory. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Borchert:2017:NCA**

- [777] Erik Borchert, Joseph Selvin, Seghal G. Kiran, Stephen A. Jackson, Fergal O’Gara, and Alan D. W. Dobson. A novel cold active esterase from a deep sea sponge *Stelletta normani* metagenomic library. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Lecours:2017:UMM**

- [778] Vincent Lecours. On the use of maps and models in conservation and resource management (warning: Results may vary). *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.



**Payne:2017:LFG**

- [779] Mark R. Payne, Alistair J. Hobday, Brian R. MacKenzie, Desiree Tommasi, Danielle P. Dempsey, Sascha M. M. Fässler, Alan C. Haynie, Rubao Ji, Gang Liu, Patrick D. Lynch, Daniela Matei, Anna K. Miesner, Katherine E. Mills, Kjersti O. Strand, and Ernesto Villarino. Lessons from the first generation of marine ecological forecast products. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Newell:2017:VOO**

- [780] Robert Newell, Rosaline Canessa, and Tara Sharma. Visualizing our options for coastal places: Exploring realistic immersive geovisualizations as tools for inclusive approaches to coastal planning and management. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Leal:2017:ITA**

- [781] Camille V. Leal, Fernando C. Moraes, Adriana M. Fróes, Ana C. Soares, Louisi S. de Oliveira, Ana Paula B. Moreira, Fabiano L. Thompson, and Eduardo Hajdu. Integrative taxonomy of Amazon reefs' *Arenosclera* spp.: a new clade in the Haplosclerida (Demospongiae). *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Thaler:2017:LWW**

- [782] Andrew D. Thaler, Naomi A. Rose, A. Mel Cosentino, and Andrew J. Wright. Lions, whales, and the web: Transforming moment inertia into conservation action. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Salmean:2017:MGP**

- [783] Armando A. Salmeán, Cécile Hervé, Bodil Jørgensen, William G. T. Willats, and Jozef Mravec. Microarray glycan profiling reveals algal fucoidan epitopes in diverse marine metazoans. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Timm:2017:SSG**

- [784] Janne Timm, Marc Kochzius, Hawis H. Madduppa, Anouk I. Neuhaus, and Tina Dohna. Small scale genetic population structure of coral reef organisms in Spermonde Archipelago, Indonesia. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Parsons:2017:INS**

- [785] E. C. M. Parsons. Impacts of Navy sonar on whales and dolphins: Now beyond a smoking gun? *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Ortiz:2017:IAE**

- [786] Joseph D. Ortiz, Dulcinea Avouris, Stephen Schiller, Jeffrey C. Luvall, John D. Lekki, Roger P. Tokars, Robert C. Anderson, Robert Shuchman, Michael Sayers, and Richard Becker. Intercomparison of approaches to the empirical line method for vicarious hyperspectral reflectance calibration. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Vasquez-Elizondo:2017:LAC**

- [787] Román M. Vásquez-Elizondo and Susana Enríquez. Light absorption in coralline algae (Rhodophyta): a morphological and functional approach to understanding species distribution in a coral reef lagoon. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Lantz:2017:OCE**

- [788] Coulson A. Lantz, Robert C. Carpenter, Steeve Comeau, and Peter J. Edmunds. Organisms composing an experimental coral reef community from Mo'orea, French Polynesia, exhibit taxon-specific net production: Net calcification ratios. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Parsons:2017:MCY**

- [789] E. C. M. Parsons, Rick MacPherson, and A. Villagomez. Marine “Conservation”: You keep using that word but I don't think it means what you think it means. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Moore:2017:BOP**

- [790] Timothy S. Moore, Colleen B. Mouw, James M. Sullivan, Michael S. Twardowski, Ashley M. Burtner, Audrey B. Ciochetto, Malcolm N. McFarland, Aditya R. Nayak, Danna Paladino, Nicole D. Stockley, Thomas H. Johengen, Angela W. Yu, Steve Ruberg, and Alan Weidemann. Bio-optical properties of cyanobacteria blooms in Western Lake Erie. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Metfies:2017:PCM**

- [791] Katja Metfies, Eduard Bauerfeind, Christian Wolf, Pim Sprong, Stephan Frickenhaus, Lars Kaleschke, Anja Nicolaus, and Eva-Maria Nöthig. Protist communities in moored long-term sediment traps (Fram Strait, Arctic) — preservation with mercury chloride allows for PCR-based molecular genetic analyses. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Bennett:2017:BCH**

- [792] Scott Bennett, Thomas Wernberg, and Thibaut de Bettignies. Bubble curtains: Herbivore exclusion devices for ecology and restoration of marine ecosystems? *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Moreira-Coello:2017:BFU**

- [793] Víctor Moreira-Coello, Beatriz Mouriño-Carballido, Emilio Marañón, Ana Fernández-Carrera, Antonio Bode, and Marta M. Varela. Biological N<sub>2</sub> fixation in the upwelling region off NW Iberia: Magnitude, relevance, and players. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Strand:2017:NGS**

- [794] Kjersti O. Strand, Svein Sundby, Jon Albretsen, and Frode B. Vikebø. The Northeast Greenland Shelf as a potential habitat for the Northeast Arctic cod. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Bento:2017:SPC**

- [795] Rita Bento, David A. Feary, Andrew S. Hoey, and John A. Burt. Settlement patterns of corals and other benthos on reefs with divergent environments and disturbances histories around the Northeastern Arabian Peninsula. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Leopold:2017:IRT**

- [796] Marc Léopold, Gilbert David, Jason Raubani, Jeremie Kaltavara, Lincoln Hood, and Dirk Zeller. An improved reconstruction of total marine fisheries catches for the New Hebrides and the Republic of Vanuatu, 1950–2014. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Galgani:2017:EPP**

- [797] François Galgani, Christopher Kim Pham, and Julia Reisser. Editorial: Plastic pollution. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Cavanagh:2017:SAE**

- [798] Rachel D. Cavanagh, Eugene J. Murphy, Thomas J. Bracegirdle, John Turner, Cheryl A. Knowland, Stuart P. Corney, Walker O. Smith, Claire M. Waluda, Nadine M. Johnston, Richard G. J. Bellerby, Andrew J. Constable, Daniel P. Costa, Eileen E. Hofmann, Jennifer A.

Jackson, Iain J. Staniland, Dieter Wolf-Gladrow, and José C. Xavier. A synergistic approach for evaluating climate model output for ecological applications. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Scheufen:2017:CNS**

- [799] Tim Scheufen, Roberto Iglesias-Prieto, and Susana Enríquez. Changes in the number of symbionts and symbiodinium cell pigmentation modulate differentially coral light absorption and photosynthetic performance. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Kohlbach:2017:IAP**

- [800] Doreen Kohlbach, Benjamin A. Lange, Fokje L. Schaafsma, Carmen David, Martina Vortkamp, Martin Graeve, Jan A. van Franeker, Thomas Krumpfen, and Hauke Flores. Ice algae-produced carbon is critical for overwintering of Antarctic krill *Euphausia superba*. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Webb:2017:CEE**

- [801] Alice E. Webb, Steven M. A. C. van Heuven, Didier M. de Bakker, Fleur C. van Duyl, Gert-Jan Reichart, and Lennart J. de Nooijer. Combined effects of experimental acidification and eutrophication on reef sponge bioerosion rates. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Dawson:2017:IMP**

- [802] Tiffany M. Dawson, Angela Formia, Pierre D. Agamboué, Georges M. Asseko, François Boussamba, Floriane Cardiec, Emmanuel Chartrain, Philip D. Doherty, J. Michael Fay, Brendan J. Godley, Francis Lambert, Brice D. Koumba Mabert, Jean C. Manfoumbi, Kristian Metcalfe, Gianna Minton, Ivan Ndanga, Jacob Nzegoue, Carmen K. Kouerey Oliwina, Philippe Du Plessis, Guy-Philippe Sounguet, Dominic Tilley, Matthew J. Witt, and Sara M. Maxwell. Informing Marine Protected Area designation and management for nesting olive Ridley sea turtles using satellite tracking. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Buck:2017:EOL**

- [803] Kristen N. Buck, Maeve C. Lohan, Sylvia G. Sander, Christel Hassler, and Ivanka Pižeta. Editorial: Organic ligands — a key control on trace metal biogeochemistry in the ocean. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Djurhuus:2017:EFD**

- [804] Anni Djurhuus, Jesse Port, Collin J. Closek, Kevan M. Yamahara, Ofelia Romero-Maraccini, Kristine R. Walz, Dawn B. Goldsmith, Reiko Michisaki, Mya Breitbart, Alexandria B. Boehm, and Francisco P. Chavez. Evaluation of filtration and DNA extraction methods for environmental DNA biodiversity assessments across multiple trophic levels. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Druon:2017:STA**

- [805] Jean-Noël Druon, Emmanuel Chassot, Hilario Murua, and Jon Lopez. Skipjack tuna availability for purse seine fisheries is driven by suitable feeding habitat dynamics in the Atlantic and Indian Oceans. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Raicevich:2017:CIE**

- [806] Saša Raicevich, Pietro Battaglia, Tomaso Fortibuoni, Teresa Romeo, Otello Giovanardi, and Franco Andaloro. Critical inconsistencies in early implementations of the Marine Strategy Framework Directive and Common Fisheries Policy objectives hamper policy synergies in fostering the sustainable exploitation of Mediterranean fisheries resources. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Engel:2017:MNR**

- [807] Friederike G. Engel, Aleksandra M. Lewandowska, Sarah L. Eggers, and Birte Matthiessen. Manipulation of non-random species loss in natural phytoplankton: Qualitative and quantitative evaluation of different approaches. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Morais:2017:RGS**

- [808] Pedro Morais, María P. Parra, Vânia Baptista, Laura Ribeiro, Pedro Pousão-Ferreira, and Maria A. Teodósio. Response of gilthead seabream (*Sparus aurata* L., 1758) larvae to nursery odor cues as described by a new set of behavioral indexes. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Huntington:2017:EEC**

- [809] Henry P. Huntington, Lori T. Quakenbush, and Mark Nelson. Evaluating the effects of climate change on indigenous marine mammal hunting in Northern and Western Alaska using traditional knowledge. *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Coghlan:2017:RMF**

- [810] Amy R. Coghlan, Rachel White, Terence P. Dawson, Robert A. Irving, Dirk Zeller, and Maria L. D. Palomares. Reconstructed marine fisheries catches at a remote island group: Pitcairn Islands (1950–2014). *Frontiers in Marine Science*, 4, September 2017. ISSN 2296-7745.

**Kapsenberg:2017:AOA**

- [811] Lydia Kapsenberg, Emily E. Bockmon, Philip J. Bresnahan, Kristy J. Kroeker, Jean-Pierre Gattuso, and Todd R. Martz. Advancing ocean acidification biology using durafet(R) pH electrodes. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Geissler:2017:EFB**

- [812] Felix Geißler, Eric P. Achterberg, Alexander D. Beaton, Mark J. Hopwood, Jennifer S. Clarke, André Mutzberg, Matt C. Mowlem, and Douglas P. Connelly. Evaluation of a ferrozine based autonomous in situ lab-on-chip analyzer for dissolved iron species in coastal waters. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Schlegel:2017:PAO**

- [813] Robert W. Schlegel, Eric C. J. Oliver, Sarah Perkins-Kirkpatrick, Andries Kruger, and Albertus J. Smit. Predominant atmospheric and oceanic patterns during coastal marine heatwaves. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Gulka:2017:DNS**

- [814] Julia Gulka, Paloma C. Carvalho, Edward Jenkins, Kelsey Johnson, Laurie Maynard, and Gail K. Davoren. Dietary niche shifts of multiple marine predators under varying prey availability on the Northeast Newfoundland Coast. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Ackleson:2017:ACR**

- [815] Steven G. Ackleson, Joseph P. Smith, Luis M. Rodriguez, Wesley J. Moses, and Brandon J. Russell. Autonomous coral reef survey in support of remote sensing. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Peters:2017:ODH**

- [816] Jason W. Peters, David B. Eggleston, Brandon J. Puckett, and Seth J. Theuerkauf. Oyster demographics in harvested reefs vs. no-take reserves: Implications for larval spillover and restoration success. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Jindrich:2017:OAC**

- [817] Katia Jindrich, Kathrein E. Roper, Sussan Lemon, Bernard M. Degnan, Adam M. Reitzel, and Sandie M. Degnan. Origin of the animal circadian clock: Diurnal and light-entrained gene expression in the sponge *Amphimedon queenslandica*. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Lembo:2017:PMS**

- [818] Giuseppe Lembo, Jose M. Bellido, Isabella Bitetto, Maria T. Facchini, Teresa García-Jiménez, Mavra Stithou, Vassiliki C. Vassilopoulou, and Maria T. Spedicato. Preference modeling to support stakeholder outreach toward the common fishery policy objectives in the North Mediterranean Sea. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Trinh:2017:ALM**

- [819] Rebecca C. Trinh, Cédric G. Fichot, Michelle M. Gierach, Benjamin Holt, Nabin K. Malakar, Glynn Hulley, and Jayme Smith. Application of Landsat 8 for monitoring impacts of wastewater discharge on coastal water quality. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Matul:2017:DPR**

- [820] Alexander Matul and Rahul Mohan. Distribution of polycystine radiolarians in bottom surface sediments and its relation to summer sea temperature in the high-latitude North Atlantic. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Lippert:2017:TNB**

- [821] Heike Lippert, Ronny Weigelt, Karin Glaser, Rica Krauss, Ralf Bastrop, and Ulf Karsten. *Teredo navalis* in the Baltic Sea: Larval dynamics of an invasive wood-boring bivalve at the edge of its distribution. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Gjosaeter:2017:EDV**

- [822] Harald Gjøsæter, Peter H. Wiebe, Tor Knutsen, and Randi B. Ingvaldsen. Evidence of diel vertical migration of mesopelagic sound-scattering organisms in the Arctic. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Marti:2017:LAP**

- [823] Elisa Martí, Cecilia Martin, Andrés Cózar, and Carlos M. Duarte. Low abundance of plastic fragments in the surface waters of the Red Sea. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Knutsen:2017:HLE**

- [824] Tor Knutsen, Peter H. Wiebe, Harald Gjørseter, Randi B. Ingvaldsen, and Gunnar Lien. High latitude epipelagic and mesopelagic scattering layers — a reference for future Arctic ecosystem change. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Rowden:2017:HRH**

- [825] Ashley A. Rowden, Owen F. Anderson, Samuel E. Georgian, David A. Bowden, Malcolm R. Clark, Arne Pallentin, and Andrew Miller. High-resolution habitat suitability models for the conservation and management of vulnerable marine ecosystems on the Louisville Seamount Chain, South Pacific Ocean. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Cibic:2017:PTN**

- [826] Tamara Cibic, Annalisa Franzo, Federica Nasi, Rocco Auriemma, and Paola Del Negro. The Port of Trieste (Northern Adriatic Sea) — a case study of the “Ecosystem Approach to Management”. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Mills:2017:FST**

- [827] Katherine E. Mills, Andrew J. Pershing, and Christina M. Hernández. Forecasting the seasonal timing of Maine’s lobster fishery. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Bargain:2017:SML**

- [828] Annaëlle Bargain, Fabio Marchese, Alessandra Savini, Marco Taviani, and Marie-Claire Fabri. Santa Maria di Leuca Province (Mediterranean Sea): Identification of suitable mounds for cold-water coral settlement using geomorphometric proxies and Maxent methods. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Salihoglu:2017:EFB**

- [829] Baris Salihoglu, Sinan S. Arkin, Ekin Akoglu, and Bettina A. Fach. Evolution of future Black Sea fish stocks under changing environmental and climatic conditions. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Garcias-Bonet:2017:MPS**

- [830] Neus Garcias-Bonet and Carlos M. Duarte. Methane production by seagrass ecosystems in the Red Sea. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.



**Paredes-Aguilar:2017:MIV**

- [831] Maria de la Cruz Paredes-Aguilar, Raul Avila-Sosa, and Guadalupe V. Nevárez-Moorillón. Modeling the inhibition of *Vibrio cholerae* non-01 in trypticase soy broth by chitosan of low and high molecular weight. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Amon:2017:CMS**

- [832] Diva J. Amon, Judith Gobin, Cindy L. Van Dover, Lisa A. Levin, Leigh Marsh, and Nicole A. Raineault. Characterization of methane-seep communities in a deep-sea area designated for oil and natural gas exploitation off Trinidad and Tobago. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Valdes:2017:DCE**

- [833] Valentina P. Valdés, Camila Fernandez, Verónica Molina, Rubén Escribano, and Fabien Joux. Dissolved compounds excreted by copepods reshape the active marine bacterioplankton community composition. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Riegl:2017:DMR**

- [834] Bernhard Riegl, Georgenes Cavalcante, Andrew G. Bauman, David A. Feary, Sascha Steiner, and Sam Purkis. Demographic mechanisms of reef coral species winnowing from communities under increased environmental stress. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Karr:2017:ISB**

- [835] Kendra A. Karr, Rod Fujita, Ramon Carcamo, Lawrence Epstein, James R. Foley, José A. Fraire-Cervantes, Mauro Gongora, Ollin T. Gonzalez-Cuellar, Pablo Granados-Dieseldorff, Julius Guirjen, Amy H. Weaver, Héctor Licón-González, Emilie Litsinger, Julio Maaz, Roquelito Mancao, Valerie Miller, Rafael Ortiz-Rodriguez, Tomás Plomozo-Lugo, Laura F. Rodriguez-Harker, Salvador Rodríguez-Van Dyck, Aristóteles Stavrínaky, Cristina Villanueva-Aznar, Beverly Wade, Daniel Whittle, and Jacob P. Kritzer. Integrating science-based co-management, partnerships, participatory processes and stewardship incentives to improve the performance of small-scale fisheries. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**McKinnon:2017:PRP**

- [836] A. David McKinnon, Samantha Duggan, Murray Logan, and Christian Lønborg. Plankton respiration, production, and trophic state in tropical coastal and shelf waters adjacent to Northern Australia. *Frontiers in Marine Science*, 4, October 2017. ISSN 2296-7745.

**Sini:2017:AEP**

- [837] Maria Sini, Stelios Katsanevakis, Nikoleta Koukourouvli, Vasilis Gerovasileiou, Thanos Dailianis, Lene Buhl-Mortensen, Dimitris Damalas, Panagiotis Dendrinos, Xenophon Dimas, Alexandros Frantzis, Vasilis Gerakaris, Sylvaine Giakoumi, Genoveva Gonzalez-Mirelis, Thomas Hasiotis, Yiannis Issaris, Stefanos G. Kavadas, David D. Koutsogiannopoulos, Drosos Koutsoubas, Evangelia Manoutsoglou, Vessa Markantonatou, Antonios D. Mazaris, Dimitris Poursanidis, George Papatheodorou, Maria Salomidi, Konstantinos Topouzelis, Vasilis Trygonis, Vassiliki Vassilopoulou, and Maria Zotou. Assembling ecological pieces to reconstruct the conservation puzzle of the Aegean Sea. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Peavey:2017:OHS**

- [838] Lindsey E. Peavey, Brian N. Popp, Robert L. Pitman, Steven D. Gaines, Karen E. Arthur, Shaleyla Kelez, and Jeffrey A. Seminoff. Opportunism on the High Seas: Foraging ecology of olive Ridley turtles in the Eastern Pacific Ocean. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Lange:2017:CSV**

- [839] Benjamin A. Lange, Christian Katlein, Giulia Castellani, Mar Fernández-Méndez, Marcel Nicolaus, Ilka Peeken, and Hauke Flores. Characterizing spatial variability of ice algal chlorophyll a and net primary production between sea ice habitats using horizontal profiling platforms. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Ramalho:2017:DSM**

- [840] Sofia P. Ramalho, Lidia Lins, Juan Bueno-Pardo, Eliana A. Cordova, Joel M. Amisi, Nikolaos Lampadariou, Ann Vanreusel, and Marina R. Cunha. Deep-sea mega-epibenthic assemblages from the SW Portuguese Margin (NE Atlantic) subjected to bottom-trawling fisheries. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Brewin:2017:EAO**

- [841] Robert J. W. Brewin, Kieran Hyder, Andreas J. Andersson, Oliver Billson, Philip J. Bresnahan, Thomas G. Brewin, Tyler Cyronak, Giorgio Dall'Olmo, Lee de Mora, George Graham, Thomas Jackson, and Dionysios E. Raitsos. Expanding aquatic observations through recreation. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Lemasson:2017:SQO**

- [842] Anaëlle J. Lemasson, Victor Kuri, Jason M. Hall-Spencer, Stephen Fletcher, Roy Moate, and Antony M. Knights. Sensory qualities of oysters unaltered by a short exposure to combined elevated pCO<sub>2</sub> and temperature. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Borges:2017:SPE**

- [843] Rebecca Borges, Alexander C. Ferreira, and Luiz D. Lacerda. Systematic planning and ecosystem-based management as strategies to reconcile mangrove conservation with resource use. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Das:2017:RDE**

- [844] Diya Das and Pedro Afonso. Review of the diversity, ecology, and conservation of elasmobranchs in the Azores Region, Mid-North Atlantic. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Boucek:2017:MTJ**

- [845] Ross E. Boucek, Erin Leone, Joel Bickford, Sarah Walters-Burnsed, and Susan Lowerre-Barbieri. More than just a spawning location: Examining fine scale space use of two estuarine fish species at a spawning aggregation site. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Brasier:2017:DPP**

- [846] Madeleine J. Brasier, James Harle, Helena Wiklund, Rachel M. Jeffreys, Katrin Linse, Henry A. Ruhl, and Adrian G. Glover. Distributional patterns of polychaetes across the West Antarctic based on DNA barcoding and particle tracking analyses. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Brisson-Curadeau:2017:TCB**

- [847] Emile Brisson-Curadeau, Allison Patterson, Shannon Whelan, Thomas Lazarus, and Kyle H. Elliott. Tracking cairns: Biologging improves the use of seabirds as sentinels of the sea. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Lindemann:2017:EMP**

- [848] Christian Lindemann, Dag L. Aksnes, Kevin J. Flynn, and Susanne Menden-Deuer. Editorial: Modeling the plankton—enhancing the integration of biological knowledge and mechanistic understanding. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**vandenEngh:2017:DPS**

- [849] Ger J. van den Engh, Joseph K. Doggett, Anne W. Thompson, Martina A. Doblin, Carla N. G. Gimpel, and David M. Karl. Dynamics of *Prochlorococcus* and *Synechococcus* at Station ALOHA revealed through flow cytometry and high-resolution vertical sampling. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Cohen:2017:DTP**

- [850] Natalie R. Cohen, Kelsey A. Ellis, Robert H. Lampe, Heather McNair, Benjamin S. Twining, Maria T. Maldonado, Mark A. Brzezinski, Fedor I. Kuzminov, Kimberlee Thamatrakoln, Claire P. Till, Kenneth W. Bruland, William G. Sunda, Sibel Bargu, and Adrian Marchetti. Diatom transcriptional and physiological responses to changes in iron bioavailability across ocean provinces. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745. See corrigendum [1046].

**Hoegh-Guldberg:2017:EEC**

- [851] Ove Hoegh-Guldberg and Elvira S. Poloczanska. Editorial: The effect of climate change across ocean regions. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Hedley:2017:RSS**

- [852] John D. Hedley, Brandon J. Russell, Kaylan Randolph, Miguel Á. Pérez-Castro, Román M. Vásquez-Elizondo, Susana Enríquez, and Heidi M. Dierssen. Remote sensing of seagrass leaf area index and species: The capability of a model inversion method assessed by sensitivity analysis and hyperspectral data of Florida Bay. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Tai:2017:EVF**

- [853] Travis C. Tai, Tim Cashion, Vicky W. Y. Lam, Wilf Swartz, and U. Rashid Sumaila. Ex-vessel fish price database: Disaggregating prices for low-priced species from reduction fisheries. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Pohlabeln:2017:EEA**

- [854] Anika M. Pohlabeln, Gonzalo V. Gomez-Saez, Beatriz E. Noriega-Ortega, and Thorsten Dittmar. Experimental evidence for abiotic sulfurization of marine dissolved organic matter. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Hoadley:2017:UOS**

- [855] Kenneth D. Hoadley and Mark E. Warner. Use of open source hardware and software platforms to quantify spectrally dependent differences in photochemical efficiency and functional absorption cross section within the dinoflagellate *Symbiodinium* spp. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Dawson:2017:IAP**

- [856] Stephen M. Dawson, M. Hamish Bowman, Eva Leunissen, and Pascal Sirguy. Inexpensive aerial photogrammetry for studies of whales and large marine animals. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745. See corrigendum [1368].

**Rasse:2017:EOP**

- [857] Rafael Rasse, Giorgio Dall’Olmo, Jason Graff, Toby K. Westberry, Virginie van Dongen-Vogels, and Michael J. Behrenfeld. Evaluating optical proxies of particulate organic carbon across the surface Atlantic Ocean. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Hauton:2017:ITI**

- [858] Chris Hauton, Alastair Brown, Sven Thatje, Nélia C. Mestre, Maria J. Bebianno, Inês Martins, Raul Bettencourt, Miquel Canals, Anna Sanchez-Vidal, Bruce Shillito, Juliette Ravaux, Magali Zbinden, Sébastien Duperron, Lisa Mevenkamp, Ann Vanreusel, Cristina Gambi, Antonio Dell’Anno, Roberto Danovaro, Vikki Gunn, and Phil Weaver. Identifying toxic impacts of metals potentially released during deep-sea mining — a synthesis of the challenges to quantifying risk. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Meyer:2017:AFL**

- [859] Lauren Meyer, Heidi Pethybridge, Peter D. Nichols, Crystal Beckmann, Barry D. Bruce, Jonathan M. Werry, and Charlie Huveneers. Assessing the functional limitations of lipids and fatty acids for diet determination: The importance of tissue type, quantity, and quality. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Gomez-Letona:2017:TPP**

- [860] Markel Gómez-Letona, Antonio G. Ramos, Josep Coca, and Javier Arístegui. Trends in primary production in the Canary Current Upwelling System — a regional perspective comparing remote sensing models. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Sabatella:2017:KEC**

- [861] Evelina C. Sabatella, Francesco Colloca, Gianluigi Coppola, Fabio Fiorentino, Monica Gambino, Loretta Malvarosa, and Rosaria Sabatella. Key economic characteristics of Italian trawl fisheries and management challenges. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Marrari:2017:VYT**

- [862] Marina Marrari, Alberto R. Piola, and Daniel Valla. Variability and 20-year trends in satellite-derived surface chlorophyll concentrations in large marine ecosystems around South and Western Central America. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Alvarez:2017:APS**

- [863] Belinda Alvarez, Patrick J. Frings, Wim Clymans, Guillaume Fontorbe, and Daniel J. Conley. Assessing the potential of sponges (*Porifera*) as indicators of ocean dissolved Si concentrations. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Gillis:2017:OPR**

- [864] Lucy G. Gillis, Clive G. Jones, Alan D. Ziegler, Daphne van der Wal, Annette Breckwoldt, and Tjeerd J. Bouma. Opportunities for protecting and restoring tropical coastal ecosystems by utilizing a physical connectivity approach. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Carella:2017:EFS**

- [865] Francesca Carella and Rubina Sirri. Editorial: Fish and shellfish pathology. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Hoogenboom:2017:EDV**

- [866] Mia O. Hoogenboom, Grace E. Frank, Tory J. Chase, Saskia Jurriaans, Mariana Álvarez-Noriega, Katie Peterson, Kay Critchell, Kathryn L. E. Berry, Katia J. Nicolet, Blake Ramsby, and Allison S. Paley. Environmental drivers of variation in bleaching severity of *Acropora* species during an extreme thermal anomaly. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Cory:2017:CSD**

- [867] Rose M. Cory, Timothy W. Davis, Gregory J. Dick, Tom Johengen, Vincent J. Denef, Michelle Berry, Sarah E. Page, Susan B. Watson, Kate Yuhas, and George W. Kling. Corrigendum: Seasonal dynamics in dissolved organic matter, hydrogen peroxide, and cyanobacterial blooms in

Lake Erie. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745. See [257].

**Martinez-Vicente:2017:IOC**

- [868] Víctor Martínez-Vicente, Hayley Evers-King, Shovonlal Roy, Tihomir S. Kostadinov, Glen A. Tarran, Jason R. Graff, Robert J. W. Brewin, Giorgio Dall’Olmo, Tom Jackson, Anna E. Hickman, Rüdiger Röttgers, Hajo Krasemann, Emilio Marañón, Trevor Platt, and Shubha Sathyendranath. Intercomparison of ocean color algorithms for picophytoplankton carbon in the ocean. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Hirai:2017:CZD**

- [869] Junya Hirai, Seiji Katakura, Hiromi Kasai, and Satoshi Nagai. Cryptic zooplankton diversity revealed by a metagenetic approach to monitoring metazoan communities in the coastal waters of the Okhotsk Sea, North-eastern Hokkaido. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Santamaria-Aguilar:2017:LTT**

- [870] Sara Santamaria-Aguilar, Mark Schuerch, Athanasios T. Vafeidis, and Silvina C. Carretero. Long-term trends and variability of water levels and tides in Buenos Aires and Mar del Plata, Argentina. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Storlazzi:2017:MFS**

- [871] Curt D. Storlazzi, Maarten van Ormondt, Yi-Leng Chen, and Edwin P. L. Elias. Modeling fine-scale coral larval dispersal and interisland connectivity to help designate mutually-supporting coral reef Marine Protected Areas: Insights from Maui Nui, Hawaii. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Williams:2017:OLS**

- [872] Ashley J. Williams, Corey B. Wakefield, Stephen J. Newman, Elodie Vourey, Francisco J. Abascal, Tuikolongahau Halafihi, Jeremie Kaltavara, and Simon J. Nicol. Oceanic, latitudinal, and sex-specific variation in demography of a tropical deepwater snapper across the Indo-Pacific region. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Grosse:2017:NMA**

- [873] Fabian Große, Markus Kreis, Hermann-Josef Lenhart, Johannes Pätsch, and Thomas Pohlmann. A novel modeling approach to quantify the

influence of nitrogen inputs on the oxygen dynamics of the North Sea. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Chaugule:2017:MNP**

- [874] Sachin R. Chaugule, Madhavi M. Indap, and Shubhada V. Chiplunkar. Marine natural products: New avenue in treatment of osteoporosis. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Turk:2017:CEA**

- [875] Daniela Turk, Michael Dowd, Siv K. Lauvset, Jannes Koelling, Fernando Alonso-Pérez, and Fiz F. Pérez. Can empirical algorithms successfully estimate aragonite saturation state in the subpolar North Atlantic? *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Shafeeque:2017:CSC**

- [876] Muhammad Shafeeque, Shubha Sathyendranath, Grinson George, Alungal N. Balchand, and Trevor Platt. Comparison of seasonal cycles of phytoplankton chlorophyll, aerosols, winds and sea-surface temperature off Somalia. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Platt:2017:PPS**

- [877] Trevor Platt, Shubha Sathyendranath, George N. White, Thomas Jackson, Stéphane Saux Picart, and Heather Bouman. Primary production: Sensitivity to surface irradiance and implications for archiving data. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Lohr:2017:CCS**

- [878] Kathryn E. Lohr, David J. Smith, David J. Suggett, Matthew R. Nitschke, Alex J. Dumbrell, Stephen Woodcock, and Emma F. Camp. Coral community structure and recruitment in seagrass meadows. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745.

**Rubelmann:2017:CCE**

- [879] Haydn Rubelmann, David J. Karlen, and James R. Garey. Corrigendum: Changes in eukaryotic and bacterial communities along a 120 m transect associated with a shallow marine hydrothermal vent. *Frontiers in Marine Science*, 4, November 2017. ISSN 2296-7745. See [879].

**Gier:2017:BDF**

- [880] Jessica Gier, Carolin R. Löscher, Andrew W. Dale, Stefan Sommer, Ulrike Lomnitz, and Tina Treude. Benthic dinitrogen fixation traversing



the oxygen minimum zone off Mauritania (NW Africa). *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Dimitriou:2017:RBM**

- [881] Panagiotis D. Dimitriou, Nafsika Papageorgiou, and Ioannis Karakassis. Response of benthic macrofauna to eutrophication in a mesocosm experiment: Ecosystem resilience prevents hypoxic conditions. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Chen:2017:TNH**

- [882] Chong Chen, Yadong Zhou, Chunsheng Wang, and Jonathan T. Copley. Two new hot-vent peltospirid snails (Gastropoda: Neomphalina) from Longqi Hydrothermal Field, Southwest Indian Ridge. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Sherman:2017:HPC**

- [883] Krista D. Sherman, R. Andrew King, Craig P. Dahlgren, Stephen D. Simpson, Jamie R. Stevens, and Charles R. Tyler. Historical processes and contemporary anthropogenic activities influence genetic population dynamics of Nassau grouper (*Epinephelus striatus*) within The Bahamas. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Jaeger:2017:GRY**

- [884] Audrey Jaeger, Chris J. Feare, Ron W. Summers, Camille Lebarbenchon, Christine S. Larose, and Matthieu Le Corre. Geolocation reveals year-round at-sea distribution and activity of a superabundant tropical seabird, the sooty tern *Onychoprion fuscatus*. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Gerhardinger:2018:HBB**

- [885] Leopoldo C. Gerhardinger, Philipp Gorris, Leandra R. Gonçalves, Danieli F. Herbst, Daniele A. Vila-Nova, Fabiano G. De Carvalho, Marion Glaser, Ruben Zondervan, and Bruce C. Glavovic. Healing Brazil's blue Amazon: The role of knowledge networks in nurturing cross-scale transformations at the frontlines of ocean sustainability. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Clarke:2017:CTD**

- [886] Jennifer S. Clarke, Matthew P. Humphreys, Eithne Tynan, Vassilis Kitiidis, Ian Brown, Matthew Mowlem, and Eric P. Achterberg. Characterization of a time-domain dual lifetime referencing pCO<sub>2</sub> optode and

deployment as a high-resolution underway sensor across the high latitude North Atlantic Ocean. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Conley:2017:BDD**

- [887] Daniel J. Conley, Patrick J. Frings, Guillaume Fontorbe, Wim Clymans, Johanna Stadmark, Katharine R. Hendry, Alan O. Marron, and Christina L. De La Rocha. Biosilicification drives a decline of dissolved Si in the oceans through geologic time. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Bahr:2017:ITB**

- [888] Keisha D. Bahr, Ku‘ulei S. Rodgers, and Paul L. Jokiel. Impact of three bleaching events on the reef resiliency of Kāne‘ohe Bay, Hawai‘i. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Leman-Loubiere:2017:SNF**

- [889] Charlotte Leman-Loubière, Géraldine Le Goff, Cécile Debitus, and Jamal Ouazzani. Sporochartines A–E, a new family of natural products from the marine fungus *Hypoxyton monticulosum* isolated from a *Sphaerocladina* sponge. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Herrera-Vargas:2017:HMT**

- [890] Ma. A. Herrera-Vargas, Esperanza Meléndez-Herrera, Gabriel Gutiérrez-Ospina, Fany E. Bucio-Piña, Armida Báez-Saldaña, Héctor H. Siliceo-Cantero, and Alma L. Fuentes-Farías. Hatchlings of the marine turtle *Lepidochelys olivacea* display signs of prenatal stress at emergence after being incubated in man-made nests: a preliminary report. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Quigley:2017:TWQ**

- [891] Kate M. Quigley, Line K. Bay, and Bette L. Willis. Temperature and water quality-related patterns in sediment-associated *Symbiodinium* communities impact symbiont uptake and fitness of juveniles in the genus *Acropora*. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Derrick:2017:TMM**

- [892] Brittany Derrick, Pavarot Noranarttragoon, Dirk Zeller, Lydia C. L. Teh, and Daniel Pauly. Thailand’s missing marine fisheries catch (1950–2014). *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Gonzalez-Pech:2017:TRM**

- [893] Raúl A. González-Pech, Sergio Vargas, Warren R. Francis, and Gert Wörheide. Transcriptomic resilience of the *Montipora digitata* Holobiont to low pH. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Smit:2017:STO**

- [894] Albertus J. Smit, John J. Bolton, and Robert J. Anderson. Seaweeds in two oceans: Beta-diversity. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Petras:2017:HRL**

- [895] Daniel Petras, Irina Koester, Ricardo Da Silva, Brandon M. Stephens, Andreas F. Haas, Craig E. Nelson, Linda W. Kelly, Lihini I. Aluwihare, and Pieter C. Dorrestein. High-resolution liquid chromatography tandem mass spectrometry enables large scale molecular characterization of dissolved organic matter. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Tsani:2018:MND**

- [896] Stella Tsani and Phoebe Koundouri. A methodological note for the development of integrated aquaculture production models. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Lips:2017:IMR**

- [897] Inga Lips and Urmas Lips. The importance of *Mesodinium rubrum* at post-spring bloom nutrient and phytoplankton dynamics in the vertically stratified Baltic Sea. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Reve-Lamarche:2017:EPD**

- [898] Anne-Hélène Rêve-Lamarche, Séverine Alvain, Marie-Fanny Racault, David Dessailly, Natacha Guiselin, Cédric Jamet, Vincent Vantrepotte, and Grégory Beaugrand. Estimation of the potential detection of diatom assemblages based on ocean color radiance anomalies in the North Sea. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Forero:2017:PBT**

- [899] Gabriela Navarrete Forero, Sara Miñarro, Tobias Karl Mildenerberger, Annette Breckwoltd, Sudirman, and Hauke Reuter. Participatory boat tracking reveals spatial fishing patterns in an Indonesian artisanal fishery. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Bergmeier:2017:ASM**

- [900] Franziska S. Bergmeier, Angelika Brandt, Enrico Schwabe, and Katharina M. Jörger. Abyssal solenogastres (Mollusca, Aplacophora) from the Northwest Pacific: Scratching the surface of deep-sea diversity using integrative taxonomy. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Stromberg:2017:LBL**

- [901] Susanna M. Strömberg and Ann I. Larsson. Larval behavior and longevity in the cold-water coral *Lophelia pertusa* indicate potential for long distance dispersal. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Herran:2017:CCP**

- [902] Natalia Herrán, Gita R. Narayan, Claire E. Reymond, and Hildegard Westphal. Calcium carbonate production, coral cover and diversity along a distance gradient from Stone Town: a case study from Zanzibar, Tanzania. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Silber:2017:PMM**

- [903] Gregory K. Silber, Matthew D. Lettrich, Peter O. Thomas, Jason D. Baker, Mark Baumgartner, Elizabeth A. Becker, Peter Boveng, Dorothy M. Dick, Jerome Fiechter, Jaume Forcada, Karin A. Forney, Roger B. Griffis, Jonathan A. Hare, Alistair J. Hobday, Daniel Howell, Kristin L. Laidre, Nate Mantua, Lori Quakenbush, Jarrod A. Santora, Kathleen M. Stafford, Paul Spencer, Charles Stock, William Sydeman, Kyle Van Houtan, and Robin S. Waples. Projecting marine mammal distribution in a changing climate. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Antolos:2017:FBE**

- [904] Michelle Antolos, Scott A. Shaffer, Henri Weimerskirch, Yann Tremblay, and Daniel P. Costa. Foraging behavior and energetics of albatrosses in contrasting breeding environments. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Krogh:2017:PPC**

- [905] Jeremy Krogh, Shirley Lyons, and Christopher J. Lowe. Pharmaceuticals and personal care products in municipal wastewater and the marine receiving environment near Victoria, Canada. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Christaki:2017:PEM**

- [906] Urania Christaki, Savvas Genitsaris, Sébastien Monchy, Luen L. Li, Sara Rachik, Elsa Breton, and Téléphore Sime-Ngando. Parasitic eukaryotes in a meso-eutrophic coastal system with marked *Phaeocystis globosa* blooms. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Cruaud:2017:CSG**

- [907] Perrine Cruaud, Adrien Vigneron, Patricia Pignet, Jean-Claude Caprais, Françoise Lesongeur, Laurent Toffin, Anne Godfroy, and Marie-Anne Cambon-Bonavita. Comparative study of Guaymas Basin microbiomes: Cold seeps vs. hydrothermal vents sediments. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Miller:2018:OSM**

- [908] Kathryn A. Miller, Kirsten F. Thompson, Paul Johnston, and David Santillo. An overview of seabed mining including the current state of development, environmental impacts, and knowledge gaps. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Willis:2017:MDD**

- [909] Kathryn A. Willis, Ruth Eriksen, Chris Wilcox, and Britta D. Hardesty. Microplastic distribution at different sediment depths in an urban estuary. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Meekan:2017:ISR**

- [910] Mark Meekan, Christopher M. Austin, Mun H. Tan, Nu-Wei V. Wei, Adam Miller, Simon J. Pierce, David Rowat, Guy Stevens, Tim K. Davies, Alessandro Ponzo, and Han Ming Gan. iDNA at sea: Recovery of whale shark (*Rhincodon typus*) mitochondrial DNA sequences from the whale shark copepod (*Pandarus rhincodonicus*) confirms global population structure. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Robinson:2017:SRM**

- [911] Néstor M. Robinson, Wendy A. Nelson, Mark J. Costello, Judy E. Sutherland, and Carolyn J. Lundquist. A systematic review of marine-based species distribution models (SDMs) with recommendations for best practice. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Horton:2017:RFD**

- [912] Travis W. Horton, Nan Hauser, Alexandre N. Zerbini, Malcolm P. Francis, Michael L. Domeier, Artur Andriolo, Daniel P. Costa, Patrick W.

Robinson, Clinton A. J. Duffy, Nicole Nasby-Lucas, Richard N. Holdaway, and Phillip J. Clapham. Route fidelity during marine megafauna migration. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Carpi:2017:SMF**

- [913] Piera Carpi, Giuseppe Scarcella, and Massimiliano Cardinale. The saga of the management of fisheries in the Adriatic Sea: History, flaws, difficulties, and successes toward the application of the Common Fisheries Policy in the Mediterranean. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745. See commentary [1398, 1762].

**Horton:2017:TIB**

- [914] Travis W. Horton, Alice Oline, Nan Hauser, Tasnuva Ming Khan, Amelie Laute, Alyssa Stoller, Katherine Tison, and Peyman Zawar-Reza. Thermal imaging and biometrical thermography of humpback whales. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Pirotta:2017:ECB**

- [915] Vanessa Pirotta, Alastair Smith, Martin Ostrowski, Dylan Russell, Ian D. Jonsen, Alana Grech, and Robert Harcourt. An economical custom-built drone for assessing whale health. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Haley:2017:IBP**

- [916] Brian A. Haley, Jianguhui Du, April N. Abbott, and James McManus. The impact of benthic processes on rare earth element and neodymium isotope distributions in the oceans. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Glippa:2017:EDT**

- [917] Olivier Glippa, Andreas Brutemark, Justin Johnson, Kristian Spilling, Ulrika Candolin, and Jonna Engström-Öst. Early development of the threespine stickleback in relation to water pH. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Summers:2018:EGT**

- [918] Tammy M. Summers, Summer L. Martin, Jessy R. Hapdei, Joseph K. Ruak, and T. Todd Jones. Endangered green turtles (*Chelonia mydas*) of the Northern Mariana Islands: Nesting ecology, poaching, and climate concerns. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Bittig:2018:OOS**

- [919] Henry C. Bittig, Arne Körtzinger, Craig Neill, Eikbert van Ooijen, Joshua N. Plant, Johannes Hahn, Kenneth S. Johnson, Bo Yang, and Steven R. Emerson. Oxygen optode sensors: Principle, characterization, calibration, and application in the ocean. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Kinsey:2018:FCD**

- [920] Joanna D. Kinsey, Gabrielle Corradino, Kai Ziervogel, Astrid Schnetzer, and Christopher L. Osburn. Formation of chromophoric dissolved organic matter by bacterial degradation of phytoplankton-derived aggregates. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Burdett:2017:EDR**

- [921] Heidi L. Burdett. Exchange dynamics reveal significant accumulation of dimethylated sulfur by Mediterranean benthic communities. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Agusti:2017:OMS**

- [922] Susana Agusti, Juan Martinez-Ayala, Aurore Regaudie de Gioux, and Carlos M. Duarte. Oligotrophication and metabolic slowing-down of a NW Mediterranean coastal ecosystem. *Frontiers in Marine Science*, 4, December 2017. ISSN 2296-7745.

**Gafar:2018:CMP**

- [923] Natasha A. Gafar, Bradley D. Eyre, and Kai G. Schulz. A conceptual model for projecting coccolithophorid growth, calcification and photosynthetic carbon fixation rates in response to global ocean change. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Thomas:2018:MTT**

- [924] Luke Thomas, Noah H. Rose, Rachael A. Bay, Elora H. López, Megan K. Morikawa, Lupita Ruiz-Jones, and Stephen R. Palumbi. Mechanisms of thermal tolerance in reef-building corals across a fine-grained environmental mosaic: Lessons from Ofu, American Samoa. *Frontiers in Marine Science*, 4, February 2018. ISSN 2296-7745.

**Robinson:2018:SCD**

- [925] Alex Robinson, Heather A. Bouman, Gavin H. Tilstone, and Shubha Sathyendranath. Size class dependent relationships between temperature and phytoplankton photosynthesis-irradiance parameters in the Atlantic Ocean. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Lonborg:2018:LSR**

- [926] Christian Lønborg, Xosé A. Álvarez-Salgado, Robert T. Letscher, and Dennis A. Hansell. Large stimulation of recalcitrant dissolved organic carbon degradation by increasing ocean temperatures. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Moisan:2018:MNG**

- [927] Tiffany A. Moisan and B. Greg Mitchell. Modeling net growth of *Phaeocystis antarctica* based on physiological and optical responses to light and temperature co-limitation. *Frontiers in Marine Science*, 4, February 2018. ISSN 2296-7745.

**Lai:2018:AOC**

- [928] Chun-Ze Lai, Michael D. DeGrandpre, and Reuben C. Darlington. Autonomous optofluidic chemical analyzers for marine applications: Insights from the submersible autonomous moored instruments (SAMI) for pH and pCO<sub>2</sub>. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Mishra:2018:STC**

- [929] Amrit K. Mishra, João Silva, and Rui Santos. Short term CO<sub>2</sub> enrichment increases carbon sequestration of air-exposed intertidal communities of a coastal lagoon. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Perry:2018:HCF**

- [930] Diana Perry, Thomas A. B. Staveley, and Martin Gullström. Habitat connectivity of fish in temperate shallow-water seascapes. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Beattie:2018:NSV**

- [931] Douglas T. Beattie, Tim Lachnit, Elizabeth A. Dinsdale, Torsten Thomas, and Peter D. Steinberg. Novel ssDNA viruses detected in the virome of bleached, habitat-forming kelp *Ecklonia radiata*. *Frontiers in Marine Science*, 4, January 2018. ISSN 2296-7745.

**Hazan:2018:MPA**

- [932] Or Hazan, Jacob Silverman, Guy Sisma-Ventura, Tal Ozer, Isacc Gertman, Efrat Shoham-Frider, Nurit Kress, and Eyal Rahav. Mesopelagic prokaryotes alter surface phytoplankton production during simulated deep mixing experiments in Eastern Mediterranean Sea waters. *Frontiers in Marine Science*, 5, January 2018. ISSN 2296-7745.



**Caputo:2018:SCT**

- [933] Andrea Caputo, Marcus Stenegren, Massimo C. Pernice, and Rachel A. Foster. A short comparison of two marine planktonic diazotrophic symbioses highlights an un-quantified disparity. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Frouin:2018:SRP**

- [934] Robert Frouin, Didier Ramon, Emmanuel Boss, Dominique Jolivet, Mathieu Compiègne, Jing Tan, Heather Bouman, Thomas Jackson, Bryan Franz, Trevor Platt, and Shubha Sathyendranath. Satellite radiation products for ocean biology and biogeochemistry: Needs, state-of-the-art, gaps, development priorities, and opportunities. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Camp:2018:FCR**

- [935] Emma F. Camp, Verena Schoepf, Peter J. Mumby, Leonardo A. Hardtke, Riccardo Rodolfo-Metalpa, David J. Smith, and David J. Suggett. The future of coral reefs subject to rapid climate change: Lessons from natural extreme environments. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Pitois:2018:CCE**

- [936] Sophie G. Pitois, Julian Tilbury, Paul Bouch, Hayden Close, Samantha Barnett, and Phil F. Culverhouse. Comparison of a cost-effective integrated plankton sampling and imaging instrument with traditional systems for mesozooplankton sampling in the Celtic Sea. *Frontiers in Marine Science*, 5, January 2018. ISSN 2296-7745.

**Bombar:2018:FCG**

- [937] Deniz Bombar, Ryan W. Paerl, Ruth Anderson, and Lasse Riemann. Filtration via conventional glass fiber filters in  $^{15}\text{N}_2$  tracer assays fails to capture all nitrogen-fixing prokaryotes. *Frontiers in Marine Science*, 5, January 2018. ISSN 2296-7745.

**Tilot:2018:BMA**

- [938] Virginie Tilot, Rupert Ormond, Juan Moreno Navas, and Teresa S. Catalá. The benthic megafaunal assemblages of the CCZ (Eastern Pacific) and an approach to their management in the face of threatened anthropogenic impacts. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745. See corrigendum [1128].

**Lee:2018:AAB**

- [939] Zhongping Lee, Shaoling Shang, and Robert Stavn. AOPs are not additive: On the biogeo-optical modeling of the diffuse attenuation coefficient. *Frontiers in Marine Science*, 5, January 2018. ISSN 2296-7745.

**Gibbin:2018:STT**

- [940] Emma M. Gibbin, Thomas Krueger, Hollie M. Putnam, Katie L. Barott, Julia Bodin, Ruth D. Gates, and Anders Meibom. Short-term thermal acclimation modifies the metabolic condition of the coral holobiont. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Hays:2018:NTI**

- [941] Graeme C. Hays, Teresa Alcoverro, Marjolijn J. A. Christianen, Carlos M. Duarte, Mark Hamann, Peter I. Macreadie, Helene D. Marsh, Michael A. Rasheed, Michele Thums, Richard K. F. Unsworth, Paul H. York, and Nicole Esteban. New tools to identify the location of seagrass meadows: Marine grazers as habitat indicators. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Quick:2018:TOA**

- [942] Cathryn Quick, Cecilia D'Angelo, and Jörg Wiedenmann. Trade-offs associated with photoprotective green fluorescent protein expression as potential drivers of balancing selection for color polymorphism in reef corals. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Westrich:2018:VPD**

- [943] Jason R. Westrich, Dale W. Griffin, Douglas L. Westphal, and Erin K. Lipp. *Vibrio* population dynamics in Mid-Atlantic surface waters during Saharan dust events. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Gast:2018:MAD**

- [944] Rebecca J. Gast, Scott A. Fay, and Robert W. Sanders. Mixotrophic activity and diversity of Antarctic marine protists in austral summer. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Tuckett:2018:HLC**

- [945] Chenae A. Tuckett and Thomas Wernberg. High latitude corals tolerate severe cold spell. *Frontiers in Marine Science*, 5, January 2018. ISSN 2296-7745.

**Botha:2018:VFD**

- [946] Jonathan A. Botha and Pierre A. Pistorius. Variability in the foraging distribution and diet of cape gannets between the guard and post-guard phases of the breeding cycle. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Gruss:2018:PDM**

- [947] Arnaud Grüss, Michael D. Drexler, Cameron H. Ainsworth, Elizabeth A. Babcock, Joseph H. Tarnecki, and Matthew S. Love. Producing distribution maps for a spatially-explicit ecosystem model using large monitoring and environmental databases and a combination of interpolation and extrapolation. *Frontiers in Marine Science*, 5, January 2018. ISSN 2296-7745.

**Vare:2018:SCA**

- [948] Lindsay L. Vare, Maria C. Baker, John A. Howe, Lisa A. Levin, Carlos Neira, Eva Z. Ramirez-Llodra, Amanda Reichelt-Brushett, Ashley A. Rowden, Tracy M. Shimmield, Stuart L. Simpson, and Eulogio H. Soto. Scientific considerations for the assessment and management of mine tailings disposal in the deep sea. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Ford:2018:RUS**

- [949] Amanda K. Ford, Sonia Bejarano, Maggy M. Nugues, Petra M. Visser, Simon Albert, and Sebastian C. A. Ferse. Reefs under siege — the rise, putative drivers, and consequences of benthic cyanobacterial mats. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Lessin:2018:MMS**

- [950] Gennadi Lessin, Yuri Artioli, Elin Almroth-Rosell, Jerry C. Blackford, Andrew W. Dale, Ronnie N. Glud, Jack J. Middelburg, Roberto Pastres, Ana M. Queirós, Christophe Rabouille, Pierre Regnier, Karline Soetaert, Cosimo Solidoro, Nicholas Stephens, and Evgeniy Yakushev. Modelling marine sediment biogeochemistry: Current knowledge gaps, challenges, and some methodological advice for advancement. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Anderson:2018:ECC**

- [951] O. Roger Anderson. Evidence for coupling of the carbon and phosphorus biogeochemical cycles in freshwater microbial communities. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Thums:2018:HBD**

- [952] Michele Thums, Juan Fernández-Gracia, Ana M. M. Sequeira, Víctor M. Eguíluz, Carlos M. Duarte, and Mark G. Meekan. How big data fast tracked human mobility research and the lessons for animal movement ecology. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Hendry:2018:CBS**

- [953] Katharine R. Hendry, Alan O. Marron, Flora Vincent, Daniel J. Conley, Marion Gehlen, Federico M. Ibarbalz, Bernard Quéguiner, and Chris Bowler. Competition between silicifiers and non-silicifiers in the past and present ocean and its evolutionary impacts. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Lopez-Angarita:2018:WLA**

- [954] Juliana López-Angarita, Alexander Tilley, Juan M. Díaz, Julie P. Hawkins, E. Fernando Cagua, and Callum M. Roberts. Winners and losers in area-based management of a small-scale fishery in the Colombian Pacific. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Bierwagen:2018:TTU**

- [955] Stacy L. Bierwagen, Michelle R. Heupel, Andrew Chin, and Colin A. Simpfendorfer. Trophodynamics as a tool for understanding coral reef ecosystems. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Braun:2018:IAT**

- [956] Camrin D. Braun, Gregory B. Skomal, and Simon R. Thorrold. Integrating archival tag data and a high-resolution oceanographic model to estimate basking shark (*Cetorhinus maximus*) movements in the Western Atlantic. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Liang:2018:IOW**

- [957] Cui Liang, Weiwei Xian, and Daniel Pauly. Impacts of ocean warming on China’s fisheries catches: an application of “Mean Temperature of the Catch” concept. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**White:2018:TVT**

- [958] Angelicque E. White, Katie S. Watkins-Brandt, and Matthew J. Church. Temporal variability of *Trichodesmium* spp. and diatom–diazotroph assemblages in the North Pacific Subtropical Gyre. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Shinzato:2018:USD**

- [959] Chuya Shinzato, Yuna Zayasu, Miyuki Kanda, Mayumi Kawamitsu, Noriyuki Satoh, Hiroshi Yamashita, and Go Suzuki. Using seawater to document coral-zoothanthea diversity: a new approach to coral reef monitoring using environmental DNA. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Gonzalez-Zapata:2018:HDR**

- [960] Fanny L. Gonzalez-Zapata, Pim Bongaerts, Catalina Ramírez-Portilla, Boahemaa Adu-Oppong, Gretchen Walljasper, Alejandro Reyes, and Juan A. Sanchez. Holobiont diversity in a reef-building coral over its entire depth range in the mesophotic zone. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Flores:2018:GAR**

- [961] Natalie M. Flores, Todd R. Miller, and Jason D. Stockwell. A global analysis of the relationship between concentrations of microcystins in water and fish. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Booth:2018:PSR**

- [962] David J. Booth, Giglia A. Beretta, Luke Brown, and Will F. Figueira. Predicting success of range-expanding coral reef fish in temperate habitats using temperature-abundance relationships. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Plass-Johnson:2018:CRN**

- [963] Jeremiah G. Plass-Johnson, Vanessa N. Bednarz, Jaclyn M. Hill, Jamaluddin Jompa, Sebastian C. A. Ferse, and Mirta Teichberg. Contrasting responses in the niches of two coral reef herbivores along a gradient of habitat disturbance in the Spermonde Archipelago, Indonesia. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Teichberg:2018:STP**

- [964] Mirta Teichberg, Christian Wild, Vanessa N. Bednarz, Hauke F. Kegler, Muhammad Lukman, Astrid A. Gärdes, Jasmin P. Heiden, Laura Weiland, Nur Abu, Andriani Nasir, Sara Miñarro, Sebastian C. A. Ferse, Hauke Reuter, and Jeremiah G. Plass-Johnson. Spatio-temporal patterns in coral reef communities of the Spermonde Archipelago, 2012–2014, I: Comprehensive reef monitoring of water and benthic indicators reflect changes in reef health. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Glaser:2018:BRS**

- [965] Marion Glaser, Jeremiah G. Plass-Johnson, Sebastian C. A. Ferse, Muhammad Neil, Dewi Y. Satari, Mirta Teichberg, and Hauke Reuter. Breaking resilience for a sustainable future: Thoughts for the Anthropocene. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Sur:2018:MDS**

- [966] Christine Sur, Jessica M. Abbott, Rohani Ambo-Rappe, Nenni Asriani, Sarah O. Hameed, Brittany M. Jellison, Hasriani A. Lestari, Steven R. Limbong, Musdalifah Mandasari, Gabriel Ng, Erin V. Satterthwaite, Sulham Syahid, Dale Trockel, Widyastuti Umar, and Susan L. Williams. Marine debris on small islands: Insights from an educational outreach program in the Spermonde Archipelago, Indonesia. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Plass-Johnson:2018:STP**

- [967] Jeremiah G. Plass-Johnson, Mirta Teichberg, Vanessa N. Bednarz, Astrid Gärdes, Jasmin P. Heiden, Muhammad Lukman, Sara Miñarro, Hauke Kegler, Laura Weiand, Christian Wild, Hauke Reuter, and Sebastian C. A. Ferse. Spatio-temporal patterns in the coral reef communities of the Spermonde Archipelago, 2012–2014, II: Fish assemblages display structured variation related to benthic condition. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Dempsey:2018:EPH**

- [968] Danielle P. Dempsey, Wendy C. Gentleman, Pierre Pepin, and Mariano Koen-Alonso. Explanatory power of human and environmental pressures on the fish community of the Grand Bank before and after the biomass collapse. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Katsanevakis:2018:UMI**

- [969] Stelios Katsanevakis and Aristides Moustakas. Uncertainty in marine invasion science. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Wieczorek:2018:FMM**

- [970] Alina M. Wieczorek, Liam Morrison, Peter L. Croot, A. Louise Allcock, Eoin MacLoughlin, Olivier Savard, Hannah Brownlow, and Thomas K. Doyle. Frequency of microplastics in mesopelagic fishes from the Northwest Atlantic. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745. See corrigendum [1058].

**Lewbart:2018:FBR**

- [971] Gregory A. Lewbart, Eli B. Cohen, Maximilian Hirschfeld, Juan Pablo Muñoz-Pérez, Juan García, Andy Fu, Emile P. Chen, and Kenneth J. Lohmann. Field-based radiographic imaging of marine megafauna: Marine iguanas (*Amblyrhynchus cristatus*) as a case study. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Rivera-Sosa:2018:UKL**

- [972] Andrea Rivera-Sosa, Aarón Israel Muñoz-Castillo, Melanie McField, and Jesús Ernesto Arias-González. Unusual “Knob-Like chimney” growth forms on *Acropora* species in the Caribbean. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Buhl-Mortensen:2018:IBT**

- [973] Pål Buhl-Mortensen and Lene Buhl-Mortensen. Impacts of bottom trawling and litter on the seabed in Norwegian waters. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Oczkowski:2018:CSI**

- [974] Autumn Oczkowski, Bryan Taplin, Richard Pruell, Adam Pimenta, Roxanne Johnson, and Jason Grear. Carbon stable isotope values in plankton and mussels reflect changes in carbonate chemistry associated with nutrient enhanced net production. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Teh:2018:WBF**

- [975] Lydia C. L. Teh and Daniel Pauly. Who brings in the fish? The relative contribution of small-scale and industrial fisheries to food security in Southeast Asia. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Nitschke:2018:UPT**

- [976] Matthew R. Nitschke, Stephanie G. Gardner, Samantha Goyen, Lisa Fujise, Emma F. Camp, Peter J. Ralph, and David J. Suggett. Utility of photochemical traits as diagnostics of thermal tolerance amongst Great Barrier Reef corals. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Watson:2018:FFF**

- [977] James R. Watson, Emma C. Fuller, Frederic S. Castruccio, and Jameal F. Samhouri. Fishermen follow fine-scale physical ocean features for finance. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Leis:2018:PLO**

- [978] Jeffrey M. Leis. Paradigm lost: Ocean acidification will overturn the concept of larval-fish biophysical dispersal. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**McClenachan:2018:SBR**

- [979] Loren McClenachan, Ryunosuke Matsuura, Payal Shah, and Sahan T. M. Dissanayake. Shifted baselines reduce willingness to pay for conservation. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Mullineaux:2018:EED**

- [980] Lauren S. Mullineaux, Anna Metaxas, Stace E. Beaulieu, Monika Bright, Sabine Gollner, Benjamin M. Grupe, Santiago Herrera, Julie B. Kellner, Lisa A. Levin, Satoshi Mitarai, Michael G. Neubert, Andreas M. Thurnherr, Verena Tunnicliffe, Hiromi K. Watanabe, and Yong-Jin Won. Exploring the ecology of deep-sea hydrothermal vents in a metacommunity framework. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Molina-Kescher:2018:IBI**

- [981] Mario Molina-Kescher, Ed C. Hathorne, Anne H. Osborne, Melanie K. Behrens, Martin Kölling, Katharina Pahnke, and Martin Frank. The influence of basaltic islands on the oceanic REE distribution: a case study from the tropical South Pacific. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Bergman:2018:BBC**

- [982] Jessica L. Bergman, Saki Harii, Haruko Kurihara, and Peter J. Edmunds. Behavior of brooded coral larvae in response to elevated pCO<sub>2</sub>. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Jones:2018:CCS**

- [983] Benjamin L. Jones, Richard K. F. Unsworth, Susantha Udagedara, and Leanne C. Cullen-Unsworth. Conservation concerns of small-scale fisheries: By-catch impacts of a shrimp and finfish fishery in a Sri Lankan lagoon. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Niner:2018:DSM**

- [984] Holly J. Niner, Jeff A. Ardron, Elva G. Escobar, Matthew Gianni, Aline Jaeckel, Daniel O. B. Jones, Lisa A. Levin, Craig R. Smith, Torsten Thiele, Phillip J. Turner, Cindy L. Van Dover, Les Watling,



and Kristina M. Gjerde. Deep-sea mining with no net loss of biodiversity — an impossible aim. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745. See corrigendum [1126].

**DuPreez:2018:LTS**

- [985] Cherisse Du Preez and Charles R. Fisher. Long-term stability of back-arc basin hydrothermal vents. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Berg:2018:DMC**

- [986] Carlo Berg, Chris L. Dupont, Johannes Asplund-Samuelsson, Narin A. Celepli, Alexander Eiler, Andrew E. Allen, Martin Ekman, Birgitta Bergman, and Karolina Ininbergs. Dissection of microbial community functions during a cyanobacterial bloom in the Baltic Sea via metatranscriptomics. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Howells:2018:SSC**

- [987] Emily J. Howells, Glenn Dunshea, Dain McParland, Grace O. Vaughan, Scott F. Heron, Morgan S. Pratchett, John A. Burt, and Andrew G. Bauman. Species-specific coral calcification responses to the extreme environment of the Southern Persian Gulf. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Liu:2018:PHS**

- [988] Gang Liu, C. Mark Eakin, Mingyue Chen, Arun Kumar, Jacqueline L. De La Cour, Scott F. Heron, Erick F. Geiger, William J. Skirving, Kyle V. Tirak, and Alan E. Strong. Predicting heat stress to inform reef management: NOAA coral reef watch's 4-month coral bleaching outlook. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Whomersley:2018:MDS**

- [989] Paul Whomersley, Johan Van der Molen, Douglas Holt, Colin Trundle, Sarah Clark, and David Fletcher. Modeling the dispersal of spiny lobster (*Palinurus elephas*) larvae: Implications for future fisheries management and conservation measures. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Stratmann:2018:PPA**

- [990] Tanja Stratmann, Lisa Mevenkamp, Andrew K. Sweetman, Ann Vanreusel, and Dick van Oevelen. Has phytodetritus processing by an abyssal soft-sediment community recovered 26 years after an experimental disturbance? *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Barus:2018:FDV**

- [991] Carole Barus, Dancheng Chen Legrand, Nicolas Striebig, Benoit Jugeau, Arnaud David, Maria Valladares, Praxedes Munoz Parra, Marcel E. Ramos, Boris Dewitte, and Véronique Garçon. First deployment and validation of in situ silicate electrochemical sensor in seawater. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Bundy:2018:DSC**

- [992] Randelle M. Bundy, Rene M. Boiteau, Craig McLean, Kendra A. Turk-Kubo, Matt R. McIlvin, Mak A. Saito, Benjamin A. S. Van Mooy, and Daniel J. Repeta. Distinct siderophores contribute to iron cycling in the mesopelagic at Station ALOHA. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Breckwoldt:2018:EFH**

- [993] Annette Breckwoldt, Beate M. W. Ratter, and Wen-Cheng Wang. Editorial: Fishing for human perceptions in coastal and island marine resource use systems. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Burke:2018:TBW**

- [994] Chantelle M. Burke and William A. Montevecchi. Taking the bite out of winter: Common murres (*Uria aalge*) push their dive limits to surmount energy constraints. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Olsen:2018:OFU**

- [995] Erik Olsen, Isaac C. Kaplan, Cameron Ainsworth, Gavin Fay, Sarah Gaichas, Robert Gamble, Raphael Girardin, Cecilie H. Eide, Thomas F. Ihde, Hem Nalini Morzaria-Luna, Kelli F. Johnson, Marie Savina-Rolland, Howard Townsend, Mariska Weijerman, Elizabeth A. Fulton, and Jason S. Link. Ocean futures under ocean acidification, marine protection, and changing fishing pressures explored using a worldwide suite of ecosystem models. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Wong-Ala:2018:HLH**

- [996] Jennifer A. T. K. Wong-Ala, Christina M. Comfort, Jamison M. Gove, Mark A. Hixon, Margaret A. McManus, Brian S. Powell, Jonathan L. Whitney, and Anna B. Neuheimer. How life history characteristics and environmental forcing shape settlement success of coral reef fishes. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Barcelo-Llull:2018:CMG**

- [997] Bàrbara Barceló-Llull, Ananda Pascual, Evan Mason, and Sandrine Mulet. Comparing a multivariate global ocean state estimate with high-resolution in situ data: an anticyclonic intrathermocline eddy near the Canary Islands. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Nagai:2018:RFP**

- [998] Yukiko Nagai, Katsuyuki Uematsu, Ryoji Wani, and Takashi Toyofuku. Reading the fine print: Ultra-microstructures of foraminiferal calcification revealed using focused ion beam microscopy. *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Galli:2018:ASM**

- [999] Giovanni Galli and Cosimo Solidoro. ATP supply may contribute to light-enhanced calcification in corals more than abiotic mechanisms. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Peel:2018:VSW**

- [1000] David Peel, Joshua N. Smith, and Simon Childerhouse. Vessel strike of whales in Australia: The challenges of analysis of historical incident data. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Lee:2018:HKC**

- [1001] Jiyoung Lee, Ki-Tae Park, Jae-Hyun Lim, Joo-Eun Yoon, and Il-Nam Kim. Hypoxia in Korean coastal waters: a case study of the natural Jinhae Bay and artificial Shihwa Bay. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Thaysen:2018:LEP**

- [1002] Clara Thaysen, Kathleen Stevack, Ralph Ruffolo, David Poirier, Hannah De Frond, Julieta DeVera, Grace Sheng, and Chelsea M. Rochman. Leachate from expanded polystyrene cups is toxic to aquatic invertebrates (*Ceriodaphnia dubia*). *Frontiers in Marine Science*, 5, February 2018. ISSN 2296-7745.

**Grosvik:2018:AML**

- [1003] Bjørn E. Grøsvik, Tatiana Prokhorova, Elena Eriksen, Pavel Krivosheya, Per A. Horneland, and Dmitry Prozorkevich. Assessment of marine litter in the Barents Sea, a part of the Joint Norwegian–Russian Ecosystem Survey. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Josef:2018:CEP**

- [1004] Noam Josef. Cephalopod experimental projected habitat (CEPH): Virtual reality for underwater organisms. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Anton:2018:IDS**

- [1005] Andrea Anton, Iris E. Hendriks, Núria Marbà, Dorte Krause-Jensen, Neus Garcias-Bonet, and Carlos M. Duarte. Iron deficiency in seagrasses and macroalgae in the Red Sea is unrelated to latitude and physiological performance. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Fernandez-Mendez:2018:AHS**

- [1006] Mar Fernández-Méndez, Lasse M. Olsen, Hanna M. Kauko, Amelie Meyer, Anja Rösel, Ioanna Merkouriadi, Christopher J. Mundy, Jens K. Ehn, A. Malin Johansson, Penelope M. Wagner, Åse Ervik, Brian K. Sorrell, Pedro Duarte, Anette Wold, Haakon Hop, and Philipp Assmy. Algal hot spots in a changing Arctic Ocean: Sea-ice ridges and the snow-ice interface. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Puckett:2018:ILD**

- [1007] Brandon J. Puckett, Seth J. Theuerkauf, David B. Eggleston, Rodney Guajardo, Craig Hardy, Jie Gao, and Richard A. Luettich. Integrating larval dispersal, permitting, and logistical factors within a validated habitat suitability index for oyster restoration. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Hewson:2018:ICA**

- [1008] Ian Hewson, Kalia S. I. Bistolas, Eva M. Quijano Cardé, Jason B. Button, Parker J. Foster, Jacob M. Flanzenbaum, Jan Kocian, and Chaunte K. Lewis. Investigating the complex association between viral ecology, environment, and Northeast Pacific sea star wasting. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Basterretxea:2018:CSE**

- [1009] Gotzon Basterretxea, Francisco J. Torres-Serra, Elisabet Alacid, Sílvia Anglès, Jordi Camp, Isabel Ferrera, Eva Flo, Joan S. Font-Muñoz, Antoni Jordi, Albert Reñé, Paula M. Salgado-Hernanz, Nagore Sampedro, and Esther Garcés. Cross-shore environmental gradients in the Western Mediterranean Coast and their influence on nearshore phytoplankton communities. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Intchama:2018:AGB**

- [1010] Jeremias Francisco Intchama, Dyhia Belhabib, and Raul Joaquim Tomás Junpe. Assessing Guinea Bissau’s legal and illegal unreported and unregulated fisheries and the surveillance efforts to tackle them. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Madduppa:2018:RGD**

- [1011] Hawis H. Madduppa, Janne Timm, and Marc Kochzius. Reduced genetic diversity in the clown anemonefish *Amphiprion ocellaris* in exploited reefs of Spermonde Archipelago, Indonesia. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Froes:2018:GAN**

- [1012] Adriana M. Fróes, Thamyres C. Freitas, Livia Vidal, Luciana R. Appolinario, Luciana Leomil, Tainá Venas, Mariana E. Campeão, Carlos J. F. Silva, Ana Paula B. Moreira, Roberto G. S. Berlinck, Fabiano L. Thompson, and Cristiane C. Thompson. Genomic attributes of novel symbiont *Pseudovibrio brasiliensis* sp. nov. isolated from the sponge *Arenosclera brasiliensis*. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Moriceau:2018:CBP**

- [1013] Brivaëla Moriceau, Morten H. Iversen, Morgane Gallinari, Antti-Jussi O. Evertsen, Manon Le Goff, Beatriz Beker, Julia Boutorh, Rudolph Corvaisier, Nathalie Coffineau, Anne Donval, Sarah L. C. Giering, Marja Koski, Christophe Lambert, Richard S. Lampitt, Alain Le Mercier, Annick Masson, Herwig Stibor, Maria Stockenreiter, and Christina L. De La Rocha. Copepods boost the production but reduce the carbon export efficiency by diatoms. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Borelli:2018:EAI**

- [1014] Davide Borelli and Tomaso Gaggero. Editorial: Acoustical impact of ships and harbors: Airborne and underwater n&V pollution. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Droghei:2018:NGS**

- [1015] Riccardo Droghei, Bruno Buongiorno Nardelli, and Rosalia Santoleri. A new global sea surface salinity and density dataset from multivariate observations (1993–2016). *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Espinoza:2018:CDC**

- [1016] Mario Espinoza, Eric Díaz, Arturo Angulo, Sebastián Hernández, and Tayler M. Clarke. Chondrichthyan diversity, conservation status, and management challenges in Costa Rica. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Gobler:2018:TAF**

- [1017] Christopher J. Gobler, Lucas R. Merlo, Brooke K. Morrell, and Andrew W. Griffith. Temperature, acidification, and food supply interact to negatively affect the growth and survival of the forage fish, *Menidia beryllina* (inland silverside), and *Cyprinodon variegatus* (sheepshead minnow). *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Monolisha:2018:OCC**

- [1018] S. Monolisha, Trevor Platt, Shubha Sathyendranath, J. Jayasankar, Grinson George, and Thomas Jackson. Optical classification of the coastal waters of the Northern Indian Ocean. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Rijkenberg:2018:DFD**

- [1019] Micha J. A. Rijkenberg, Hans A. Slagter, Michiel Rutgers van der Loeff, Jan van Ooijen, and Loes J. A. Gerringa. Dissolved Fe in the deep and upper Arctic Ocean with a focus on Fe limitation in the Nansen Basin. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Benavides:2018:DOM**

- [1020] Mar Benavides, Chloé Martias, Hila Elifantz, Ilana Berman-Frank, Cécile Dupouy, and Sophie Bonnet. Dissolved organic matter influences N<sub>2</sub> fixation in the New Caledonian Lagoon (western tropical South Pacific). *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Dodge:2018:TSA**

- [1021] Kara L. Dodge, Amy L. Kukulya, Erin Burke, and Mark F. Baumgartner. TurtleCam: a “Smart” autonomous underwater vehicle for investigating behaviors and habitats of sea turtles. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Naranjo-Elizondo:2018:OLD**

- [1022] Beatriz Naranjo-Elizondo and Jorge Cortés. Observations of litter deposited in the deep waters of Isla del Coco National Park, Eastern Tropical Pacific. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Rii:2018:DRE**

- [1023] Yoshimi M. Rii, Robert R. Bidigare, and Matthew J. Church. Differential responses of eukaryotic phytoplankton to nitrogenous nutrients in the North Pacific Subtropical Gyre. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Brown:2018:NRR**

- [1024] Alastair Brown and Sven Thatje. NMDA receptor regulation is involved in the limitation of physiological tolerance to both low temperature and high hydrostatic pressure. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Suaria:2018:OPO**

- [1025] Giuseppe Suaria, Stefano Aliani, Silvia Merlino, and Marinella Abbate. The occurrence of paraffin and other petroleum waxes in the marine environment: a review of the current legislative framework and shipping operational practices. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Savchuk:2018:LSN**

- [1026] Oleg P. Savchuk. Large-scale nutrient dynamics in the Baltic Sea, 1970–2016. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Stichel:2018:TPR**

- [1027] Torben Stichel, Katharina Pahnke, Brian Duggan, Steven L. Goldstein, Alison E. Hartman, Ronja Paffrath, and Howie D. Scher. TAG plume: Revisiting the hydrothermal neodymium contribution to seawater. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Faillottaz:2018:LFS**

- [1028] Robin Faillottaz, Claire B. Paris, and Jean-Olivier Irisson. Larval fish swimming behavior alters dispersal patterns from Marine Protected Areas in the North-Western Mediterranean Sea. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Victorero:2018:SWR**

- [1029] Lissette Victorero, Les Watling, Maria L. Deng Palomares, and Claire Nouvian. Out of sight, but within reach: a global history of bottom-trawled deep-sea fisheries from > 400 m depth. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Gomiero:2018:CEI**

- [1030] Alessio Gomiero, Pierluigi Strafella, Giulio Pellini, Vera Salvalaggio, and Gianna Fabi. Comparative effects of ingested PVC micro particles with and without adsorbed benzo(a)pyrene vs. spiked sediments on the cellular and sub cellular processes of the benthic organism *Hediste diversicolor*. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Yoshimura:2018:ISO**

- [1031] Kristin M. Yoshimura, Joanna York, and Jennifer F. Biddle. Impacts of salinity and oxygen on particle-associated microbial communities in the Broadkill River, Lewes, DE. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Wang:2018:CTM**

- [1032] Lu Wang, Andrew A. Shantz, Jérôme P. Payet, Thomas J. Sharpton, Amelia Foster, Deron E. Burkepile, and Rebecca Vega Thurber. Corals and their microbiomes are differentially affected by exposure to elevated nutrients and a natural thermal anomaly. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Toullec:2018:TEP**

- [1033] Jordan Toullec and Brivaëla Moriceau. Transparent exopolymeric particles (TEP) selectively increase biogenic silica dissolution from fossil diatoms as compared to fresh diatoms. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Pittura:2018:MVE**

- [1034] Lucia Pittura, Carlo G. Avio, Maria E. Giuliani, Giuseppe d'Errico, Steffen H. Keiter, Bettie Cormier, Stefania Gorbi, and Francesco Regoli. Microplastics as vehicles of environmental PAHs to marine organisms: Combined chemical and physical hazards to the Mediterranean mussels, *Mytilus galloprovincialis*. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**deVos:2018:NDP**

- [1035] Asha de Vos, Cassandra E. Faux, James Marthick, Joanne Dickinson, and Simon N. Jarman. New determination of prey and parasite species for Northern Indian Ocean blue whales. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Hopwood:2018:PVB**

- [1036] Mark J. Hopwood, Ulf Riebesell, Javier Arístegui, Andrea Ludwig, Eric P. Achterberg, and Nauzet Hernández. Photochemical vs. bacte-



rial control of H<sub>2</sub>O<sub>2</sub> concentration across a pCO<sub>2</sub> gradient mesocosm experiment in the subtropical North Atlantic. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Clements:2018:PPQ**

- [1037] Jeff C. Clements, Rémi M. Daigle, and Halley E. Froehlich. Predator in the pool? A quantitative evaluation of non-indexed open access journals in aquaculture research. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Siciliano:2018:DLE**

- [1038] Salvatore Siciliano, Maria C. Viana, Renata Emin-Lima, and Cibele R. Bonvicino. Dolphins, love and enchantment: Tracing the use of cetacean products in Brazil. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Benavides:2018:DOF**

- [1039] Mar Benavides, Sophie Bonnet, Ilana Berman-Frank, and Lasse Riemann. Deep into oceanic N<sub>2</sub> fixation. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Ratnarajah:2018:PIR**

- [1040] Lavenia Ratnarajah, Steve Nicol, and Andrew R. Bowie. Pelagic iron recycling in the Southern Ocean: Exploring the contribution of marine animals. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Petrou:2018:SCB**

- [1041] Katherina Petrou, Daniel A. Nielsen, and Philip Heraud. Single-cell biomolecular analysis of coral algal symbionts reveals opposing metabolic responses to heat stress and expulsion. *Frontiers in Marine Science*, 5, March 2018. ISSN 2296-7745.

**Schijf:2018:EMC**

- [1042] Johan Schijf and Isabel J. Christy. Effect of Mg and Ca on the stability of the MRI contrast agent Gd-DTPA in seawater. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Zhang:2018:SDS**

- [1043] Yanjie Zhang, Chong Chen, and Jian-Wen Qiu. Sexually dimorphic scale worms (Annelida: Polynoidae) from hydrothermal vents in the Okinawa Trough: Two new species and two new sex morphs. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Conners:2018:FEA**

- [1044] Melinda G. Conners, Chandra Goetsch, Suzanne M. Budge, William A. Walker, Yoko Mitani, Daniel P. Costa, and Scott A. Shaffer. Fisheries exploitation by albatross quantified with lipid analysis. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Testa:2018:NCI**

- [1045] Jeremy M. Testa, Rebecca R. Murphy, Damian C. Brady, and William M. Kemp. Nutrient- and climate-induced shifts in the phenology of linked biogeochemical cycles in a temperate estuary. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Cohen:2018:CDT**

- [1046] Natalie R. Cohen, Kelsey A. Ellis, Robert H. Lampe, Heather McNair, Benjamin S. Twining, Maria T. Maldonado, Mark A. Brzezinski, Fedor I. Kuzminov, Kimberlee Thamatrakoln, Claire P. Till, Kenneth W. Bruland, William G. Sunda, Sibel Bargu, and Adrian Marchetti. Corrigendum: Diatom transcriptional and physiological responses to changes in iron bioavailability across ocean provinces. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745. See [850].

**Mayer:2018:STV**

- [1047] Bernhard Mayer, Tim Rixen, and Thomas Pohlmann. The spatial and temporal variability of air–sea CO<sub>2</sub> fluxes and the effect of net coral reef calcification in the Indonesian Seas: a numerical sensitivity study. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Paul:2018:BRN**

- [1048] Sophie A. L. Paul, Birgit Gaye, Matthias Haeckel, Sabine Kasten, and Andrea Koschinsky. Biogeochemical regeneration of a nodule mining disturbance site: Trace metals, DOC and amino acids in deep-sea sediments and pore waters. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Sanchez:2018:ESI**

- [1049] Nicolas Sanchez, Eunice A. Brown, Yngvar Olsen, Olav Vadstein, Jose L. Iriarte, Humberto E. Gonzalez, and Murat Van Ardelan. Effect of siderophore on iron availability in a diatom and a dinoflagellate species: Contrasting response in associated bacteria. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Silberberger:2018:FWS**

- [1050] Marc J. Silberberger, Paul E. Renaud, Ingrid Kröncke, and Henning Reiss. Food-web structure in four locations along the European Shelf indicates spatial differences in ecosystem functioning. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Wannicke:2018:NPN**

- [1051] Nicola Wannicke, Mar Benavides, Tage Dalsgaard, Joachim W. Dippner, Joseph P. Montoya, and Maren Voss. New perspectives on nitrogen fixation measurements using  $^{15}\text{N}_2$  gas. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Thakur:2018:CRS**

- [1052] Krishna K. Thakur, Raphaël Vanderstichel, Jeffrey Barrell, Henrik Stryhn, Thitiwan Patanasatienkul, and Crawford W. Revie. Comparison of remotely-sensed sea surface temperature and salinity products with in situ measurements from British Columbia, Canada. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Pootakham:2018:DNR**

- [1053] Wirulda Pootakham, Chaiwat Naktang, Chutima Sonthirod, Thippawan Yoocha, Duangjai Sangsrakru, Nukoon Jomchai, Lalita Putchim, and Sithichoke Tangphatsornruang. Development of a novel reference transcriptome for scleractinian coral *Porites lutea* using single-molecule long-read isoform sequencing (Iso-Seq). *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Mcheik:2018:OPN**

- [1054] Ali Mcheik, Sophie Cassaignon, Jacques Livage, Alain Gibaud, Serge Berthier, and Pascal J. Lopez. Optical properties of nanostructured silica structures from marine organisms. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Ragueneau:2018:ISB**

- [1055] Olivier Ragueneau, Mélanie Raimonet, Camille Mazé, Jennifer Coston-Guarini, Laurent Chauvaud, Anatole Danto, Jacques Grall, Frédéric Jean, Yves-Marie Paulet, and Gérard Thouzeau. The impossible sustainability of the Bay of Brest? fifty years of ecosystem changes, interdisciplinary knowledge construction and key questions at the science-policy-community interface. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Hildebrand:2018:UDC**

- [1056] Mark Hildebrand, Sarah J. L. Lerch, and Roshan P. Shrestha. Understanding diatom cell wall silicification — moving forward. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**deCarvalho:2018:MBS**

- [1057] Carla C. C. R. de Carvalho. Marine biofilms: a successful microbial strategy with economic implications. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Wieczorek:2018:CFM**

- [1058] Alina M. Wieczorek, Liam Morrison, Peter L. Croot, A. Louise Allcock, Eoin MacLoughlin, Olivier Savard, Hannah Brownlow, and Thomas K. Doyle. Corrigendum: Frequency of microplastics in mesopelagic fishes from the Northwest Atlantic. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745. See [970].

**Duarte:2018:SAT**

- [1059] Carlos M. Duarte, Paul Riker, Madhusudhanan Srinivasan, Patrick W. Robinson, Juan P. Gallo-Reynoso, and Daniel P. Costa. Sonification of animal tracks as an alternative representation of multi-dimensional data: a northern elephant seal example. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Scanes:2018:MWA**

- [1060] Elliot Scanes, Tina Kutti, James K. H. Fang, Emma L. Johnston, Pauline M. Ross, and Raymond J. Bannister. Mine waste and acute warming induce energetic stress in the deep-sea sponge *Geodia atlantica* and coral *Primnoa resedeaformis*; results from a mesocosm study. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Kavanaugh:2018:AER**

- [1061] Maria T. Kavanaugh, Matthew J. Church, Curtiss O. Davis, David M. Karl, Ricardo M. Letelier, and Scott C. Doney. ALOHA from the edge: Reconciling three decades of in situ Eulerian observations and geographic variability in the North Pacific Subtropical Gyre. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Virtasalo:2018:AID**

- [1062] Joonas J. Virtasalo, Samuli Korpinen, and Aarno T. Kotilainen. Assessment of the influence of dredge spoil dumping on the seafloor geological integrity. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Elvidge:2018:REF**

- [1063] Christopher D. Elvidge, Tilottama Ghosh, Kimberly Baugh, Mikhail Zhizhin, Feng-Chi Hsu, Nilo Selim Katada, Wilmon Penalosa, and Bui Quang Hung. Rating the effectiveness of fishery closures with visible infrared imaging radiometer suite boat detection data. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Baker:2018:EDE**

- [1064] C. Scott Baker, Debbie Steel, Sharon Nieu Kirk, and Holger Klinck. Environmental DNA (eDNA) from the wake of the whales: Droplet digital PCR for detection and species identification. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Javier:2018:CIR**

- [1065] Laura Hernández Javier, Hicham Benzekri, Marta Gut, M. Gonzalo Claros, Stefanie van Bergeijk, José Pedro Cañavate, and Manuel Manchado. Characterization of iodine-related molecular processes in the marine microalga *Tisochrysis lutea* (Haptophyta). *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Laidre:2018:TKA**

- [1066] Kristin L. Laidre, Allison D. Northey, and Fernando Ugarte. Traditional knowledge about polar bears (*Ursus maritimus*) in East Greenland: Changes in the catch and climate over two decades. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Raimonet:2018:LPC**

- [1067] Mélanie Raimonet, Vincent Thieu, Marie Silvestre, Ludovic Oudin, Christophe Rabouille, Robert Vautard, and Josette Garnier. Landward perspective of coastal eutrophication potential under future climate change: The Seine River Case (France). *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Hobday:2018:FCS**

- [1068] Alistair J. Hobday, Claire M. Spillman, J. Paige Eveson, Jason R. Hartog, Xuebin Zhang, and Stephanie Brodie. A framework for combining seasonal forecasts and climate projections to aid risk management for fisheries and aquaculture. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Hume:2018:FSB**

- [1069] Benjamin C. C. Hume, Cecilia D'Angelo, John A. Burt, and Jörg Wiedenmann. Fine-scale biogeographical boundary delineation and sub-

population resolution in the *Symbiodinium thermophilum* coral symbiont group from the Persian/Arabian Gulf and Gulf of Oman. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Endres:2018:NPS**

- [1070] Sonja Endres, Frank Maes, Frances Hopkins, Katherine Houghton, Eva M. Mårtensson, Johannes Oeffner, Birgit Quack, Pradeep Singh, and David Turner. A new perspective at the ship-air-sea-interface: The environmental impacts of exhaust gas scrubber discharge. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Stange:2018:OAI**

- [1071] Paul Stange, Jan Taucher, Lennart T. Bach, María Algueró-Muñiz, Henriette G. Horn, Luana Krebs, Tim Boxhammer, Alice K. Nauendorf, and Ulf Riebesell. Ocean acidification-induced restructuring of the plankton food web can influence the degradation of sinking particles. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Beck:2018:SBE**

- [1072] Aaron J. Beck, Martha Gledhill, Christian Schlosser, Beate Stamer, Claus Böttcher, Jens Sternheim, Jens Greinert, and Eric P. Achterberg. Spread, behavior, and ecosystem consequences of conventional munitions compounds in coastal marine waters. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Francini-Filho:2018:PGA**

- [1073] Ronaldo B. Francini-Filho, Nils E. Asp, Eduardo Siegle, John Hocevar, Kenneth Lowyck, Nilo D'Avila, Agnaldo A. Vasconcelos, Ricardo Baitelo, Carlos E. Rezende, Claudia Y. Omachi, Cristiane C. Thompson, and Fabiano L. Thompson. Perspectives on the Great Amazon Reef: Extension, biodiversity, and threats. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**O'Donovan:2018:EEC**

- [1074] Sarit O'Donovan, Nélia C. Mestre, Serena Abel, Tainá G. Fonseca, Camilla C. Carteny, Bettie Cormier, Steffen H. Keiter, and Maria J. Bebianno. Ecotoxicological effects of chemical contaminants adsorbed to microplastics in the clam *Scrobicularia plana*. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Abada:2018:MFP**

- [1075] Adi Abada and Einat Segev. Multicellular features of phytoplankton. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745. See commentary [1527].

**Novaglio:2018:FDE**

- [1076] Camilla Novaglio, Anthony D. M. Smith, Stewart Frusher, Francesco Ferretti, Neil Klaer, and Elizabeth A. Fulton. Fishery development and exploitation in South East Australia. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Neukermans:2018:OMS**

- [1077] Griet Neukermans and Georges Fournier. Optical modeling of spectral backscattering and remote sensing reflectance from *Emiliania huxleyi* blooms. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Crocket:2018:REE**

- [1078] Kirsty C. Crocket, Emily Hill, Richard E. Abell, Clare Johnson, Stefan F. Gary, Tim Brand, and Ed C. Hathorne. Rare earth element distribution in the NE Atlantic: Evidence for benthic sources, longevity of the sea-water signal, and biogeochemical cycling. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Troncoso:2018:THR**

- [1079] Macarena Troncoso, Gerardo Garcia, Josefa Verdugo, and Laura Farías. Toward high-resolution vertical measurements of dissolved greenhouse gases (nitrous oxide and methane) and nutrients in the Eastern South Pacific. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745. See corrigendum [1235].

**Rossel:2018:ESF**

- [1080] Sven Rossel and Pedro Martínez Arbizu. Effects of sample fixation on specimen identification in biodiversity assemblies based on proteomic data (MALDI-TOF). *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Davies:2018:SFD**

- [1081] Sarah W. Davies, Justin B. Ries, Adrian Marchetti, and Karl D. Castillo. Symbiodinium functional diversity in the coral *Siderastrea siderea* is influenced by thermal stress and reef environment, but not ocean acidification. *Frontiers in Marine Science*, 5, April 2018. ISSN 2296-7745.

**Roer:2018:IES**

- [1082] Robert D. Roer and Richard M. Dillaman. The initiation and early stages of postmolt mineralization in the blue crab, *Callinectes sapidus*. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Studivan:2018:AMC**

- [1083] Michael S. Studivan and Joshua D. Voss. Assessment of mesophotic coral ecosystem connectivity for proposed expansion of a marine sanctuary in the Northwest Gulf of Mexico: Population genetics. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Naylor:2018:OSP**

- [1084] Whitney Naylor and E. C. M. Parsons. An online survey of public knowledge, attitudes, and perceptions toward whales and dolphins, and their conservation. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Dinasquet:2018:EMR**

- [1085] Julie Dinasquet, Eva Ortega-Retuerta, Connie Lovejoy, and Ingrid Obernosterer. Editorial: Microbiology of the rapidly changing polar environments. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Schuerch:2018:CSD**

- [1086] Mark Schuerch, Tobias Dolch, Julian Bisgwa, and Athanasios T. Vafeidis. Changing sediment dynamics of a mature backbarrier salt marsh in response to sea-level rise and storm events. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Nilsson:2018:ESR**

- [1087] Birgitte Nilsson, Per M. Jepsen, Ann Bucklin, and Benni W. Hansen. Environmental stress responses and experimental handling artifacts of a model organism, the copepod *Acartia tonsa* (Dana). *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Carpenter:2018:SCV**

- [1088] Kevin J. Carpenter, Maitrayee Bose, Lubos Polerecky, Alle A. Y. Lie, Karla B. Heidelberg, and David A. Caron. Single-cell view of carbon and nitrogen acquisition in the mixotrophic alga *Prymnesium parvum* (Haptophyta) inferred from stable isotope tracers and NanoSIMS. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Knutsen:2018:CMO**

- [1089] Tor Knutsen, Aino Hosia, Tone Falkenhaus, Rasmus Skern-Mauritzen, Peter H. Wiebe, Roger B. Larsen, Asgeir Aglen, and Erik Berg. Coincident mass occurrence of gelatinous zooplankton in Northern Norway. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.



**Calderon:2018:BCR**

- [1090] Luis J. Perez Calderon, Lloyd D. Potts, Evangelia Gontikaki, Cécile Gubry-Rangin, Thomas Cornulier, Alejandro Gallego, James A. Anderson, and Ursula Witte. Bacterial community response in deep Faroe–Shetland Channel sediments following hydrocarbon entrainment with and without dispersant addition. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Chan:2018:IHM**

- [1091] Wing Yan Chan, Lesa M. Peplow, Patricia Menéndez, Ary A. Hoffmann, and Madeleine J. H. van Oppen. Interspecific hybridization may provide novel opportunities for coral reef restoration. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Morgan:2018:NLR**

- [1092] Steven G. Morgan, Seth H. Miller, Matt J. Robart, and John L. Largier. Nearshore larval retention and cross-shelf migration of benthic crustaceans at an upwelling center. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Gorospe:2018:LBB**

- [1093] Kelvin D. Gorospe, Megan J. Donahue, Adel Heenan, Jamison M. Gove, Ivor D. Williams, and Russell E. Brainard. Local biomass baselines and the recovery potential for Hawaiian coral reef fish communities. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Dewar:2018:BSC**

- [1094] Heidi Dewar, Steven G. Wilson, John R. Hyde, Owyn E. Snodgrass, Andrew Leising, Chi H. Lam, Réka Domokos, James A. Wraith, Steven J. Bograd, Sean R. Van Sommeran, and Suzanne Kohin. Basking shark (*Cetorhinus maximus*) movements in the Eastern North Pacific determined using satellite telemetry. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Vestbo:2018:PPF**

- [1095] Stine Vestbo, Matthias Obst, Francisco J. Quevedo Fernandez, Itsara Intanai, and Peter Funch. Present and potential future distributions of Asian horseshoe crabs determine areas for conservation. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Buck:2018:SAC**

- [1096] Bela H. Buck, Max F. Troell, Gesche Krause, Dror L. Angel, Britta Grote, and Thierry Chopin. State of the art and challenges for offshore

integrated multi-trophic aquaculture (IMTA). *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Adebayo:2018:REE**

- [1097] Segun B. Adebayo, Minming Cui, Travis Hong, Christopher D. White, Ellen E. Martin, and Karen H. Johannesson. Rare earth elements geochemistry and Nd isotopes in the Mississippi River and Gulf of Mexico mixing zone. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Yamada:2018:AFD**

- [1098] Yosuke Yamada, Yuji Tomaru, Hideki Fukuda, and Toshi Nagata. Aggregate formation during the viral lysis of a marine diatom. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Lysiak:2018:CDS**

- [1099] Nadine S. J. Lysiak, Stephen J. Trumble, Amy R. Knowlton, and Michael J. Moore. Characterizing the duration and severity of fishing gear entanglement on a North Atlantic right whale (*Eubalaena glacialis*) using stable isotopes, steroid and thyroid hormones in baleen. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Anonymous:2018:CMS**

- [1100] Anonymous. Corrigendum: Mediterranean Sea: a failure of the European Fisheries Management System. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745. See [564].

**DeCarlo:2018:ORO**

- [1101] Thomas M. DeCarlo, Haojia Ren, and Gabriela A. Farfan. The origin and role of organic matrix in coral calcification: Insights from comparing coral skeleton and abiogenic aragonite. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Cucio:2018:MAS**

- [1102] Catarina Cúcio, Lex Overmars, Aschwin H. Engelen, and Gerard Muyzer. Metagenomic analysis shows the presence of bacteria related to free-living forms of sulfur-oxidizing chemolithoautotrophic symbionts in the rhizosphere of the seagrass *Zostera marina*. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Fox:2018:CDO**

- [1103] Christina A. Fox, Hussain A. Abdulla, David J. Burdige, James P. Lewicki, and Tomoko Komada. Composition of dissolved organic matter

in pore waters of anoxic marine sediments analyzed by  $^1\text{H}$  nuclear magnetic resonance spectroscopy. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745. See corrigendum [1161].

**Fossi:2018:RPA**

- [1104] Maria Cristina Fossi, Cristina Panti, Matteo Baini, and Jennifer L. Lavers. A review of plastic-associated pressures: Cetaceans of the Mediterranean Sea and Eastern Australian shearwaters as case studies. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Garavelli:2018:AMC**

- [1105] Lysel Garavelli, Michael S. Studivan, Joshua D. Voss, Alyson Kuba, Joana Figueiredo, and Laurent M. Chérubin. Assessment of mesophotic coral ecosystem connectivity for proposed expansion of a marine sanctuary in the northwest Gulf of Mexico: Larval dynamics. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Takeshita:2018:CRC**

- [1106] Yuichiro Takeshita, Tyler Cyronak, Todd R. Martz, Theodor Kindeberg, and Andreas J. Andersson. Coral reef carbonate chemistry variability at different functional scales. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Muller:2018:MPMa**

- [1107] Jens D. Müller, Frank Bastkowski, Beatrice Sander, Steffen Seitz, David R. Turner, Andrew G. Dickson, and Gregor Rehder. Metrology for pH measurements in brackish waters — Part 1: Extending electrochemical pHT measurements of TRIS buffers to salinities 5–20. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Muller:2018:MPMb**

- [1108] Jens D. Müller and Gregor Rehder. Metrology of pH measurements in brackish waters — Part 2: Experimental characterization of purified meta-cresol purple for spectrophotometric pHT measurements. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Macic:2018:BIC**

- [1109] Vesna Mačić, Paolo G. Albano, Vasiliki Almpanidou, Joachim Claudet, Xavier Corrales, Franz Essl, Athanasios Evagelopoulos, Ioannis Giovos, Carlos Jimenez, Salit Kark, Olivera Marković, Antonios D. Mazaris, Gudbjörg Á. Ólafsdóttir, Marina Panayotova, Slavica Petović, Wolfgang Rabitsch, Mohammed Ramdani, Gil Rilov, Elena Tricarico, Tomás Vega

Fernández, Maria Sini, Vasilis Trygonis, and Stelios Katsanevakis. Biological invasions in conservation planning: a global systematic review. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Testa:2018:TVN**

- [1110] Giovanni Testa, Italo Masotti, and Laura Farías. Temporal variability in net primary production in an upwelling area off Central Chile (36°s). *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Yarimizu:2018:IHA**

- [1111] Kyoko Yarimizu, Ricardo Cruz-López, and Carl J. Carrano. Iron and harmful algae blooms: Potential algal-bacterial mutualism between *Lingulodinium polyedrum* and *Marinobacter algicola*. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Brown:2018:DCA**

- [1112] Kristen T. Brown, Dorothea Bender-Champ, Andreas Kubicek, Rene van der Zande, Michelle Achlatis, Ove Hoegh-Guldberg, and Sophie G. Dove. The dynamics of coral-algal interactions in space and time on the Southern Great Barrier Reef. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Engel:2018:OMS**

- [1113] Anja Engel, Martin Sperling, Cuici Sun, Julia Grosse, and Gernot Friedrichs. Organic matter in the surface microlayer: Insights from a wind wave channel experiment. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Fujimura:2018:MCS**

- [1114] Atsushi G. Fujimura, Ad J. H. M. Reniers, Claire B. Paris, Alan L. Shanks, Jamie H. MacMahan, and Steven G. Morgan. Mechanisms of cross-shore transport and spatial variability of phytoplankton on a rip-channeled beach. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Steeves:2018:PPF**

- [1115] Laura E. Steeves, Ramón Filgueira, Thomas Guyondet, Joël Chassé, and Luc Comeau. Past, present, and future: Performance of two bivalve species under changing environmental conditions. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Krisfalusi-Gannon:2018:RHC**

- [1116] Jordan Krisfalusi-Gannon, Waleed Ali, Kristen Dellinger, Lee Robertson, Terry E. Brady, Melinda K. M. Goddard, Rachel Tinker-Kulberg,

Christopher L. Kepley, and Anthony L. Dellinger. The role of horseshoe crabs in the biomedical industry and recent trends impacting species sustainability. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Rivest:2018:HSP**

- [1117] Emily B. Rivest, Morgan W. Kelly, Melissa B. DeBiasse, and Gretchen E. Hofmann. Host and symbionts in *Pocillopora damicornis* larvae display different transcriptomic responses to ocean acidification and warming. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Shepherd:2018:SPS**

- [1118] Bart Shepherd, Matt Wandell, Hudson T. Pinheiro, and Luiz A. Rocha. SubCAS: a portable, submersible hyperbaric chamber to collect living mesophotic fishes. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Bramucci:2018:BSP**

- [1119] Anna R. Bramucci, Leen Labeeuw, Fabini D. Orata, Elizabeth M. Ryan, Rex R. Malmstrom, and Rebecca J. Case. The bacterial symbiont *Phaeobacter inhibens* shapes the life history of its algal host *Emiliania huxleyi*. *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Bruno:2018:SHM**

- [1120] John F. Bruno, Whitley Saumweber, Larry B. Crowder, Linwood Pendleton, Stephen E. Roady, Tracy Rouleau, and Miyoko Sakashita. Safe harbors: The many benefits of marine monuments and sanctuaries. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Duarte:2018:CCI**

- [1121] Bernardo Duarte, Irene Martins, Rui Rosa, Ana R. Matos, Michael Y. Roleda, Thorsten B. H. Reusch, Aschwin H. Engelen, Ester A. Serrão, Gareth A. Pearson, João C. Marques, Isabel Caçador, Carlos M. Duarte, and Alexander Jueterbock. Climate change impacts on seagrass meadows and macroalgal forests: an integrative perspective on acclimation and adaptation potential. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Mintzer:2018:UAM**

- [1122] Vanessa J. Mintzer, Karen Diniz, and Thomas K. Frazer. The use of aquatic mammals for bait in global fisheries. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Tzabari:2018:LPC**

- [1123] Masada Tzabari, Danielle Mayer Mayron, David Iluz, Zvy Dubinsky, and Carynelisa Haspel. Linear polarization characteristics within the Rosh HaNikra Mid-Littoral Cave, Israel. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Schlaefer:2018:WCG**

- [1124] Jodie A. Schlaefer, Eric Wolanski, Jonathan Lambrechts, and Michael J. Kingsford. Wind conditions on the Great Barrier Reef influenced the recruitment of snapper (*Lutjanus carponotatus*). *Frontiers in Marine Science*, 5, May 2018. ISSN 2296-7745.

**Basedow:2018:SVT**

- [1125] Sünnje L. Basedow, Arild Sundfjord, Wilken-Jon von Appen, Elisabeth Halvorsen, Slawomir Kwasniewski, and Marit Reigstad. Seasonal variation in transport of zooplankton into the Arctic Basin through the Atlantic Gateway, Fram Strait. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Niner:2018:CDS**

- [1126] Holly J. Niner, Jeff A. Ardron, Elva G. Escobar, Matthew Gianni, Aline Jaeckel, Daniel O. B. Jones, Lisa A. Levin, Craig R. Smith, Torsten Thiele, Phillip J. Turner, Cindy L. Van Dover, Les Watling, and Kristina M. Gjerde. Corrigendum: Deep-sea mining with no net loss of biodiversity — an impossible aim. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745. See [984].

**Salerno:2018:ECO**

- [1127] Jennifer L. Salerno, Brenda Little, Jason Lee, and Leila J. Hamdan. Exposure to crude oil and chemical dispersant may impact marine microbial biofilm composition and steel corrosion. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Tilot:2018:CBM**

- [1128] Virginie Tilot, Rupert Ormond, Juan Moreno Navas, and Teresa S. Catalá. Corrigendum: The benthic megafaunal assemblages of the CCZ (Eastern Pacific) and an approach to their management in the face of threatened anthropogenic impacts. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745. See [938].

**Freckelton:2018:QSI**

- [1129] Marnie L. Freckelton, Lone Høj, and Bruce F. Bowden. Quorum sensing interference and structural variation of quorum sensing mimics in

Australian soft coral. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Kauko:2018:ACY**

- [1130] Hanna M. Kauko, Lasse M. Olsen, Pedro Duarte, Ilka Peeken, Mats A. Granskog, Geir Johnsen, Mar Fernández-Méndez, Alexey K. Pavlov, Christopher J. Mundy, and Philipp Assmy. Algal colonization of young Arctic sea ice in spring. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Torres-Monroy:2018:IBG**

- [1131] Ingrid Torres-Monroy and Matthias S. Ullrich. Identification of bacterial genes expressed during diatom-bacteria interactions using an in vivo expression technology approach. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Thoms:2018:IMC**

- [1132] Franziska Thoms, Christian Burmeister, Joachim W. Dippner, Mayya Gogina, Urszula Janas, Halina Kendzierska, Iris Liskow, and Maren Voss. Impact of macrofaunal communities on the coastal filter function in the Bay of Gdansk, Baltic Sea. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**McIntosh:2018:LLU**

- [1133] Rebecca R. McIntosh, Ross Holmberg, and Peter Dann. Looking without landing — using remote piloted aircraft to monitor fur seal populations without disturbance. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Richards:2018:PCB**

- [1134] Mackenzie Richards, Wei Xu, Amy Mallozzi, Reagan M. Errera, and John Supan. Production of calcium-binding proteins in *Crassostrea virginica* in response to increased environmental CO<sub>2</sub> concentration. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Almahasheer:2018:LNR**

- [1135] Hanan Almahasheer, Carlos M. Duarte, and Xabier Irigoien. Leaf nutrient resorption and export fluxes of *Avicennia marina* in the Central Red Sea area. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**McManus:2018:SRM**

- [1136] George B. McManus, Weiwei Liu, Rachel A. Cole, Daniel Biemesderfer, and Jennifer L. Mydosh. *Strombidium rassoulzadegani*: a model species

for chloroplast retention in oligotrich ciliates. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Thornton:2018:CSP**

- [1137] Daniel C. O. Thornton. Coomassie stainable particles (CSP): Protein containing exopolymer particles in the ocean. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Lewison:2018:ECC**

- [1138] Rebecca L. Lewison, Andrew F. Johnson, and Gregory M. Verutes. Embracing complexity and complexity-awareness in marine megafauna conservation and research. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Harasti:2018:IRA**

- [1139] David Harasti, Joel Williams, Emma Mitchell, Steven Lindfield, and Alan Jordan. Increase in relative abundance and size of snapper *Chrysophrys auratus* within partially-protected and no-take areas in a temperate marine protected area. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Graff:2018:PRS**

- [1140] Jason R. Graff and Michael J. Behrenfeld. Photoacclimation responses in subarctic Atlantic phytoplankton following a natural mixing-estratification event. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Samperio-Ramos:2018:EOF**

- [1141] Guillermo Samperio-Ramos, J. Magdalena Santana-Casiano, and Melchor González-Dávila. Effect of organic Fe-ligands, released by *Emiliania huxleyi*, on Fe(II) oxidation rate in seawater under simulated ocean acidification conditions: A modeling approach. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Muller-Karger:2018:AMB**

- [1142] Frank E. Muller-Karger, Patricia Miloslavich, Nicholas J. Bax, Samantha Simmons, Mark J. Costello, Isabel Sousa Pinto, Gabrielle Canonico, Woody Turner, Michael Gill, Enrique Montes, Benjamin D. Best, Jay Pearlman, Patrick Halpin, Daniel Dunn, Abigail Benson, Corinne S. Martin, Lauren V. Weatherdon, Ward Appeltans, Pieter Provoost, Eduardo Klein, Christopher R. Kelble, Robert J. Miller, Francisco P. Chavez, Katrin Iken, Sanae Chiba, David Obura, Laetitia M. Navarro, Henrique M. Pereira, Valerie Allain, Sonia Batten, Lisandro Benedetti-Checchi, J. Emmett Duffy, Raphael M. Kudela, Lisa-Maria Rebelo,



Yunne Shin, and Gary Geller. Advancing marine biological observations and data requirements of the complementary essential ocean variables (EOVs) and essential biodiversity variables (EBVs) frameworks. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Felgentreu:2018:CCD**

- [1143] Lisa Felgentreu, Günther Nausch, Franziska Bitschofsky, Monika Nausch, and Detlef Schulz-Bull. Colorimetric chemical differentiation and detection of phosphorus in eutrophic and high particulate waters: Advantages of a new monitoring approach. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Hernandez-Hernandez:2018:HCU**

- [1144] Nauzet Hernández-Hernández, Lennart T. Bach, María F. Montero, Jan Taucher, Isabel Baños, Wanchun Guan, Mario Espósito, Andrea Ludwig, Eric P. Achterberg, Ulf Riebesell, and Javier Arístegui. High CO<sub>2</sub> under nutrient fertilization increases primary production and biomass in subtropical phytoplankton communities: a mesocosm approach. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Vince:2018:GST**

- [1145] Joanna Vince and Britta D. Hardesty. Governance solutions to the tragedy of the commons that marine plastics have become. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Depew:2018:PDA**

- [1146] David C. Depew, Geoffrey Koehler, and Veronique Hiriart-Baer. Phosphorus dynamics and availability in the nearshore of Eastern Lake Erie: Insights from oxygen isotope ratios of phosphate. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Zagonari:2018:CEP**

- [1147] Fabio Zagonari, Stella Tsani, Sotiris Mavrikis, and Phoebe Koundouri. Common environment policies in different sustainability paradigms: Evidence from the Baltic, Adriatic, and Black Seas. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Lee:2018:GAG**

- [1148] Bora Lee and Myung G. Park. Genetic analyses of the *rbcl* and *psaA* genes from single cells demonstrate a rhodophyte origin of the prey in the toxic benthic dinoflagellate *Ostreopsis*. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**deBettignies:2018:EIT**

- [1149] Thibaut de Bettignies, Thomas Wernberg, and C. Frederico D. Gurgel. Exploring the influence of temperature on aspects of the reproductive phenology of temperate seaweeds. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Brodie:2018:IDS**

- [1150] Stephanie Brodie, Michael G. Jacox, Steven J. Bograd, Heather Welch, Heidi Dewar, Kylie L. Scales, Sara M. Maxwell, Dana M. Briscoe, Christopher A. Edwards, Larry B. Crowder, Rebecca L. Lewison, and Elliott L. Hazen. Integrating dynamic subsurface habitat metrics into species distribution models. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Clay:2018:DHU**

- [1151] Thomas A. Clay, Jeffrey C. Mangel, Joanna Alfaro-Shigueto, David J. Hodgson, and Brendan J. Godley. Distribution and habitat use of a cryptic small cetacean, the Burmeister’s porpoise, monitored from a small-scale fishery platform. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Sanz-Martin:2018:EAC**

- [1152] Marina Sanz-Martín, Melissa Chierici, Elena Mesa, Paloma Carrillo de Albornoz, Antonio Delgado-Huertas, Susana Agustí, Marit Reigstad, Svein Kristiansen, Paul F. J. Wassmann, and Carlos M. Duarte. Episodic Arctic CO<sub>2</sub> limitation in the West Svalbard Shelf. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Liblik:2018:PIR**

- [1153] Taavi Liblik, Michael Naumann, Pekka Alenius, Martin Hansson, Urmas Lips, Günther Nausch, Laura Tuomi, Karin Wesslander, Jaan Laanemets, and Lena Viktorsson. Propagation of impact of the recent major Baltic inflows from the Eastern Gotland Basin to the Gulf of Finland. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Giakoumi:2018:RSF**

- [1154] Sylvaine Giakoumi, Jennifer McGowan, Morena Mills, Maria Beger, Rodrigo H. Bustamante, Anthony Charles, Patrick Christie, Matthew Fox, Pablo Garcia-Borboroglu, Stefan Gelcich, Paolo Guidetti, Peter Mackelworth, Joseph M. Maina, Laurence McCook, Fiorenza Micheli, Lance E. Morgan, Peter J. Mumby, Laura M. Reyes, Alan White, Kirsten Grorud-Colvert, and Hugh P. Possingham. Revisiting “Success” and “Failure” of

Marine Protected Areas: a conservation scientist perspective. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Randelhoff:2018:SPB**

- [1155] Achim Randelhoff, Marit Reigstad, Melissa Chierici, Arild Sundfjord, Vladimir Ivanov, Mattias Cape, Maria Vernet, Jean-Éric Tremblay, Gunnar Bratbak, and Svein Kristiansen. Seasonality of the physical and biogeochemical hydrography in the inflow to the Arctic Ocean through Fram Strait. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745.

**Momigliano:2018:PSS**

- [1156] Paolo Momigliano, Gaël P. J. Denys, Henri Jokinen, and Juha Merilä. *Platichthys solemdali* sp. nov. (Actinopterygii, Pleuronectiformes): a new flounder species from the Baltic Sea. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Richmond:2018:EAS**

- [1157] Robert H. Richmond, Kaho H. Tisthammer, and Narrissa P. Spies. The effects of anthropogenic stressors on reproduction and recruitment of corals and reef organisms. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Chakravarti:2018:EEC**

- [1158] Leela J. Chakravarti and Madeleine J. H. van Oppen. Experimental evolution in coral photosymbionts as a tool to increase thermal tolerance. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Hamoutene:2018:MAC**

- [1159] Dounia Hamoutene, Flora Salvo, Stefana N. Egli, Ali Modir-Rousta, Robyn Knight, Geoff Perry, Christina S. Bottaro, and Suzanne C. Dufour. Measurement of aquaculture chemotherapeutants in flocculent matter collected at a hard-bottom dominated finfish site on the south coast of Newfoundland (Canada) after 2 years of fallow. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Miller:2018:PMS**

- [1160] Rachel L. Miller, Helene Marsh, Alison Cottrell, and Mark Hamann. Protecting migratory species in the Australian marine environment: a cross-jurisdictional analysis of policy and management plans. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745. See corrigendum [1246].

**Fox:2018:CCD**

- [1161] Christina A. Fox, Hussain A. Abdulla, David J. Burdige, James P. Lewicki, and Tomoko Komada. Corrigendum: Composition of dissolved organic matter in pore waters of anoxic marine sediments analyzed by  $^1\text{H}$  nuclear magnetic resonance spectroscopy. *Frontiers in Marine Science*, 5, June 2018. ISSN 2296-7745. See [1103].

**vonScheibner:2018:PBD**

- [1162] Markus von Scheibner, Daniel P. R. Herlemann, Aleksandra M. Lewandowska, and Klaus Jürgens. Phyto- and bacterioplankton during early spring conditions in the Baltic Sea and response to short-term experimental warming. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Cummings:2018:LRS**

- [1163] Vonda J. Cummings, Judi E. Hewitt, Simon F. Thrush, Peter M. Marriott, N. Jane Halliday, and Alf Norkko. Linking Ross Sea coastal benthic communities to environmental conditions: Documenting baselines in a spatially variable and changing world. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Araujo:2018:ALB**

- [1164] Maria C. B. Araújo, Jacqueline S. Silva-Cavalcanti, and Monica F. Costa. Anthropogenic litter on beaches with different levels of development and use: a snapshot of a coast in Pernambuco (Brazil). *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Djaoudi:2018:SDD**

- [1165] Kahina Djaoudi, France Van Wambeke, Laurent Coppola, Fabrizio D'Ortenzio, Sandra Helias-Nunige, Patrick Raimbault, Vincent Tailandier, Pierre Testor, Thibaut Wagener, and Elvira Pulido-Villena. Sensitive determination of the dissolved phosphate pool for an improved resolution of its vertical variability in the surface layer: New views in the p-depleted Mediterranean Sea. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Bjorkman:2018:STD**

- [1166] Karin M. Björkman, Solange Duhamel, Matthew J. Church, and David M. Karl. Spatial and temporal dynamics of inorganic phosphate and adenosine-5'-triphosphate in the North Pacific Ocean. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Thompson:2018:MBB**

- [1167] Fabiano Thompson, Ricardo Krüger, Cristiane C. Thompson, Roberto G. S. Berlinck, Ricardo Coutinho, Melissa F. Landell, Mauro Pavão, Paulo A. S. Mourão, Ana Salles, Naiane Negri, Fabyano A. C. Lopes, Victor Freire, Alexandre J. Macedo, Marcelo Maraschin, Carlos D. Pérez, Renato C. Pereira, Gandhi Radis-Baptista, Rachel P. Rezende, Wagner C. Valenti, Paulo C. Abreu, and BioTecMar Network. Marine biotechnology in Brazil: Recent developments and its potential for innovation. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Bidegain:2018:CPW**

- [1168] Gorka Bidegain and Ika Paul-Pont. Commentary: Plastic waste associated with disease on coral reefs. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Thiel:2018:IMP**

- [1169] Martin Thiel, Guillermo Luna-Jorquera, Rocío Álvarez-Varas, Camila Gallardo, Iván A. Hinojosa, Nicolás Luna, Diego Miranda-Urbina, Naiti Morales, Nicolas Ory, Aldo S. Pacheco, Matías Portflitt-Toro, and Carlos Zavalaga. Impacts of marine plastic pollution from continental coasts to subtropical gyres — fish, seabirds, and other vertebrates in the SE Pacific. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Stoll:2018:STR**

- [1170] Joshua S. Stoll, Beatrice I. Crona, Michael Fabinyi, and Emily R. Farr. Seafood trade routes for lobster obscure teleconnected vulnerabilities. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Miller:2018:IGP**

- [1171] Nathan A. Miller, Aaron Roan, Timothy Hochberg, John Amos, and David A. Kroodsma. Identifying global patterns of transshipment behavior. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Johnson:2018:HGR**

- [1172] Matthew D. Johnson, David J. Beaudoin, Miguel J. Frada, Emily F. Brownlee, and Diane K. Stoecker. High grazing rates on cryptophyte algae in Chesapeake Bay. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Aguilera:2018:BRC**

- [1173] Anabella Aguilera and Leda Giannuzzi. Book review: *Cyanobacteria as Environmental Determinants of Health*. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Purcell:2018:DCC**

- [1174] Steven W. Purcell, Nicola J. Fraser, Sailasa Tagica, Watisoni Lalavanua, and Daniela M. Ceccarelli. Discriminating catch composition and fishing modes in an artisanal multispecies fishery. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Moity:2018:ENT**

- [1175] Nicolas Moity. Evaluation of no-take zones in the Galápagos Marine Reserve, Zoning Plan 2000. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Archer:2018:PCD**

- [1176] Stephen D. Archer, Kerstin Suffrian, Kevin M. Posman, Lennart T. Bach, Patricia A. Matrai, Peter D. Countway, Andrea Ludwig, and Ulf Riebesell. Processes that contribute to decreased dimethyl sulfide production in response to ocean acidification in subtropical waters. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Shapiro:2018:MRN**

- [1177] Orr H. Shapiro, Elena Kartvelishvily, Esti Kramarsky-Winter, and Assaf Vardi. Magnesium-rich nanometric layer in the skeleton of *Pocillopora damicornis* with possible involvement in fibrous aragonite deposition. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Campbell:2018:WVD**

- [1178] Marnie L. Campbell and Chad L. Hewitt. Which values do non-native marine species affect? A case-study exploration of perceived values at threat in Micronesia. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Dellwig:2018:IMB**

- [1179] Olaf Dellwig, Bernhard Schnetger, David Meyer, Falk Pollehne, Katharina Häusler, and Helge W. Arz. Impact of the major Baltic inflow in 2014 on manganese cycling in the Gotland Deep (Baltic Sea). *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Kim:2018:EMS**

- [1180] Il-Nam Kim. Estimating “Mean-State” July (1985–2007) N<sub>2</sub>O fluxes in the Northern Gulf of Mexico hypoxic region: Variation, distribution, and implication. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Chong:2018:MSE**

- [1181] Lauren S. Chong, William M. Berelson, James McManus, and Nick E. Rollins. Meter-scale early diagenesis of organic matter buried within deep-sea sediments beneath the Amazon River Plume. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Doherty:2018:CWW**

- [1182] John M. Doherty and Benoit Thibodeau. Cold water in a warm world: Investigating the origin of the Nordic Seas' unique surface properties during MIS 11. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Paul-Pont:2018:CPC**

- [1183] Ika Paul-Pont, Kevin Tallec, Carmen Gonzalez-Fernandez, Christophe Lambert, Dorothée Vincent, David Mazurais, José-Luis Zambonino-Infante, Guillaume Brotons, Fabienne Lagarde, Caroline Fabioux, Philippe Soudant, and Arnaud Huvet. Constraints and priorities for conducting experimental exposures of marine organisms to microplastics. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Palmer:2018:WWA**

- [1184] Caroline V. Palmer. Warmer water affects immunity of a tolerant reef coral. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Berenshtein:2018:BSS**

- [1185] Igal Berenshtein, Claire B. Paris, Hezi Gildor, Erick Fredj, Yael Amitai, and Moshe Kiflawi. Biophysical simulations support schooling behavior of fish larvae throughout ontogeny. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Ketchum:2018:DEM**

- [1186] Remi N. Ketchum, Edward G. Smith, Grace O. Vaughan, Britney L. Phippen, Dain McParland, Noura Al-Mansoori, Tyler J. Carrier, John A. Burt, and Adam M. Reitzel. DNA extraction method plays a significant role when defining bacterial community composition in the marine invertebrate echinometra mathaei. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Lorders:2018:SFS**

- [1187] Fernanda L. Lorders, Ricardo J. Miranda, José Anchieta C. C. Nunes, and Francisco Barros. Spongivory by fishes on Southwestern Atlantic coral reefs: No evidence of top-down control on sponge assemblages. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Schnedler-Meyer:2018:BBL**

- [1188] Nicolas A. Schnedler-Meyer, Thomas Kiørboe, and Patrizio Mariani. Boom and bust: Life history, environmental noise, and the (un)Predictability of jellyfish blooms. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Sato:2018:RSU**

- [1189] Kirk N. Sato, Andreas J. Andersson, James M. D. Day, Jennifer R. A. Taylor, Michael B. Frank, Jae-Young Jung, Joanna McKittrick, and Lisa A. Levin. Response of sea urchin fitness traits to environmental gradients across the Southern California oxygen minimum zone. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Calleja:2018:MSL**

- [1190] Maria L. Calleja, Mohd I. Ansari, Anders Røstad, Luis Silva, Stein Kaartvedt, Xabier Irigoien, and Xosé Anxelu G. Morán. The mesopelagic scattering layer: a hotspot for heterotrophic prokaryotes in the Red Sea twilight zone. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Baeza:2018:SSM**

- [1191] J. Antonio Baeza. Sexual selection and mixed sex expression: Adolescent protandry, phenotypic tradeoffs and ‘unconventional’ sex allocation estimates in a protandric-simultaneous hermaphrodite. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Lee:2018:AUA**

- [1192] Kate A. Lee, Moninya Roughan, Hamish A. Malcolm, and Nicholas M. Otway. Assessing the use of area- and time-averaging based on known decorrelation scales to provide satellite derived sea surface temperatures in coastal areas. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Montero:2018:ILC**

- [1193] Natalie Montero, Simona A. Ceriani, Kelly Graham, and Mariana M. P. B. Fuentes. Influences of the local climate on loggerhead hatchling production in North Florida: Implications from climate change. *Frontiers in Marine Science*, 5, July 2018. ISSN 2296-7745.

**Muller:2018:BRP**

- [1194] Oliver Müller, Lena Seuthe, Gunnar Bratbak, and Maria L. Paulsen. Bacterial response to permafrost derived organic matter input in an Arctic fjord. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.



**Ropert-Coudert:2018:TRM**

- [1195] Yan Ropert-Coudert, Akiko Kato, Kozue Shiomi, Christophe Barbraud, Frédéric Angelier, Karine Delord, Timothée Poupart, Philippe Koubbi, and Thierry Raclot. Two recent massive breeding failures in an Adélie penguin colony call for the creation of a Marine Protected Area in D'Urville Sea/Mertz. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Duarte:2018:PGO**

- [1196] Carlos M. Duarte, Ian Poiner, and John Gunn. Perspectives on a global observing system to assess ocean health. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Popov:2018:RRF**

- [1197] Sarah Popov and Dirk Zeller. Reconstructed Russian fisheries catches in the Barents Sea: 1950–2014. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745. See corrigendum [1501].

**Ford:2018:CFO**

- [1198] Jessica H. Ford, Brock Bergseth, and Chris Wilcox. Chasing the fish oil — do bunker vessels hold the key to fisheries crime networks? *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Mertens:2018:GBM**

- [1199] Lisa E. A. Mertens, Eric A. Treml, and Sophie von der Heyden. Genetic and biophysical models help define marine conservation focus areas. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Rambahinarison:2018:LHG**

- [1200] Joshua M. Rambahinarison, Mary Jane Lamoste, Christoph A. Rohner, Ryan Murray, Sally Snow, Jessica Labaja, Gonzalo Araujo, and Alessandro Ponzo. Life history, growth, and reproductive biology of four mobulid species in the Bohol Sea, Philippines. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Gabriele:2018:UAE**

- [1201] Christine M. Gabriele, Dimitri W. Ponirakis, Christopher W. Clark, Jamie N. Womble, and Phoebe B. S. Vanselow. Underwater acoustic ecology metrics in an Alaska Marine Protected Area reveal marine mammal communication masking and management alternatives. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**McCoy:2018:LTP**

- [1202] Emer McCoy, Raul Burce, David David, Elson Q. Aca, Jennifer Hardy, Jessica Labaja, Sally J. Snow, Alessandro Ponzo, and Gonzalo Araujo. Long-term photo-identification reveals the population dynamics and strong site fidelity of adult whale sharks to the coastal waters of Donsol, Philippines. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Haraguchi:2018:PCD**

- [1203] Lumi Haraguchi, Hans H. Jakobsen, Nina Lundholm, and Jacob Carstensen. Phytoplankton community dynamic: a driver for ciliate trophic strategies. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**McKie-Krisberg:2018:EMA**

- [1204] Zaid M. McKie-Krisberg, Robert W. Sanders, and Rebecca J. Gast. Evaluation of mixotrophy-associated gene expression in two species of polar marine algae. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Cruz-Lopez:2018:BVM**

- [1205] Ricardo Cruz-López, Helmut Maske, Kyoko Yarimizu, and Neal A. Holland. The B-vitamin mutualism between the dinoflagellate *Lingulodinium polyedrum* and the bacterium *Dinoroseobacter shibae*. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**vandeWater:2018:UVR**

- [1206] Jeroen A. J. M. van de Water, Lucile Courtial, Fanny Houlbrèque, Stéphan Jacquet, and Christine Ferrier-Pagès. Ultra-violet radiation has a limited impact on seasonal differences in the *Acropora muricata* Holobiont. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Bol:2018:CRP**

- [1207] Roland Bol, Gerard Gruau, Per-Erik Mellander, Rémi Dupas, Marianne Bechmann, Eva Skarbøvik, Magdalena Bieroza, Faruk Djodjic, Miriam Glendell, Philip Jordan, Bas Van der Grift, Michael Rode, Erik Smolders, Mieke Verbeeck, Sen Gu, Erwin Klumpp, Ina Pohle, Maelle Fresne, and Chantal Gascuel-Odoux. Challenges of reducing phosphorus based water eutrophication in the agricultural landscapes of Northwest Europe. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Gutierrez:2018:LSR**

- [1208] Marcelo H. Gutiérrez, Diego Narváez, Giovanni Daneri, Paulina Montero, Iván Pérez-Santos, and Silvio Pantoja. Linking seasonal reduction of microbial diversity to increase in winter temperature of waters of a Chilean Patagonia fjord. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Gutierrez-Heredia:2018:ACA**

- [1209] Luis Gutierrez-Heredia, Colin Keogh, and Emmanuel G. Reynaud. Assessing the capabilities of additive manufacturing technologies for coral studies, education, and monitoring. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Carr:2018:TIH**

- [1210] Lindsey A. Carr, Rachel K. Gittman, and John F. Bruno. Temperature influences herbivory and algal biomass in the Galápagos Islands. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**David:2018:RPE**

- [1211] Andrew A. David. Reconsidering panmixia: The erosion of phylogeographic barriers due to anthropogenic transport and the incorporation of biophysical models as a solution. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Xu:2018:PPE**

- [1212] Kui Xu, Johann Lavaud, Rupert Perkins, Emily Austen, Marlène Bonnanfant, and Douglas A. Campbell. Phytoplankton  $\sigma$ PSII and excitation dissipation; implications for estimates of primary productivity. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Laming:2018:LED**

- [1213] Sven R. Laming, Sylvie M. Gaudron, and Sébastien Duperron. Lifecycle ecology of deep-sea chemosymbiotic mussels: a review. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Kamenos:2018:RFC**

- [1214] Nicholas A. Kamenos and Sebastian J. Hennige. Reconstructing four centuries of temperature-induced coral bleaching on the Great Barrier Reef. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745. See commentary [1554].

**Maytin:2018:NTA**

- [1215] Alexander K. Maytin, Sarah W. Davies, Gabriella E. Smith, Sean P. Mullen, and Peter M. Buston. De novo transcriptome assembly of the clown anemonefish (*Amphiprion percula*): a new resource to study the evolution of fish color. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Ajani:2018:PRN**

- [1216] Penelope A. Ajani, Niall McGinty, Zoe V. Finkel, and Andrew J. Irwin. Phytoplankton realized niches track changing oceanic conditions at a long-term coastal station off Sydney, Australia. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Tokoro:2018:IPP**

- [1217] Tatsuki Tokoro and Tomohiro Kuwae. Improved post-processing of eddy-covariance data to quantify atmosphere-aquatic ecosystem CO<sub>2</sub> exchanges. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Placke:2018:LTM**

- [1218] Manja Placke, H. E. Markus Meier, Ulf Gräwe, Thomas Neumann, Claudia Frauen, and Ye Liu. Long-term mean circulation of the Baltic Sea as represented by various ocean circulation models. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Callaway:2018:IST**

- [1219] Ruth Callaway. Interstitial space and trapped sediment drive benthic communities in artificial shell and rock reefs. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Mendoza-Flores:2018:IGG**

- [1220] Armando Mendoza-Flores, Ignacio Leyva-Valencia, Christine J. Band-Schmidt, Clara E. Galindo-Sánchez, and José J. Bustillos-Guzmán. Identification of the gene *sxtA* (domains *sxtA1* and *sxtA4*) in Mexican strains of *Gymnodinium catenatum* (Dinophyceae) and their evolution. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Edmunds:2018:CIG**

- [1221] Peter J. Edmunds, Shelby E. McIlroy, Mehdi Adjeroud, Put Ang, Jessica L. Bergman, Robert C. Carpenter, Mary A. Coffroth, Atsushi G. Fujimura, James L. Hench, Sally J. Holbrook, James J. Leichter, Soyoka Muko, Yuichi Nakajima, Masako Nakamura, Claire B. Paris, Russell J. Schmitt, Makamas Sutthacheep, Robert J. Toonen, Kazuhiko Sakai,

Go Suzuki, Libe Washburn, Alex S. J. Wyatt, and Satoshi Mitarai. Critical information gaps impeding understanding of the role of larval connectivity among coral reef islands in an era of global change. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Pakhomova:2018:MIE**

- [1222] Svetlana Pakhomova, Evgeniy Yakushev, Elizaveta Protsenko, Sylvain Rigaud, Daniel Cossa, Joel Knoery, Raoul-Marie Couture, Olivier Radakovitch, Shamil Yakubov, Dominika Krzeminska, and Alice Newton. Modeling the influence of eutrophication and redox conditions on mercury cycling at the sediment-water interface in the berre lagoon. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Stoecker:2018:MPP**

- [1223] Diane K. Stoecker and Peter J. Lavrentyev. Mixotrophic plankton in the polar seas: a pan-Arctic review. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Darling:2018:FUM**

- [1224] John A. Darling and James T. Carlton. A framework for understanding marine cosmopolitanism in the Anthropocene. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Alvarez-Aleman:2018:CCR**

- [1225] Anmari Alvarez-Alemán, James D. Austin, Charles A. Jacoby, and Thomas K. Frazer. Cuban connection: Regional role for Florida's manatees. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Fauvelle:2018:OSE**

- [1226] Vincent Fauvelle, Javier Castro-Jiménez, Natascha Schmidt, Benoit Carlez, Christos Panagiotopoulos, and Richard Sempéré. One-single extraction procedure for the simultaneous determination of a wide range of polar and nonpolar organic contaminants in seawater. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Umanzor:2018:ISM**

- [1227] Schery Umanzor, Lydia Ladah, and José A. Zertuche-González. Intertidal seaweeds modulate a contrasting response in understory seaweed and microphytobenthic early recruitment. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Fragoso:2018:DBL**

- [1228] Glauca M. Fragoso, Alex J. Poulton, Igor M. Yashayaev, Erica J. H. Head, Geir Johnsen, and Duncan A. Purdie. Diatom biogeography from

the Labrador Sea revealed through a trait-based approach. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Duarte:2018:SID**

- [1229] Carlos M. Duarte, Antonio Delgado-Huertas, Andrea Anton, Paloma Carrillo de Albornoz, Daffne C. López-Sandoval, Susana Agustí, Hanan Almahasheer, Núria Marbá, Iris E. Hendriks, Dorte Krause-Jensen, and Neus Garcias-Bonet. Stable isotope ( $\delta^{13}\text{C}$ ,  $\delta^{15}\text{N}$ ,  $\delta^{18}\text{O}$ ,  $\delta\text{D}$ ) composition and nutrient concentration of Red Sea primary producers. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Libralato:2018:ECO**

- [1230] Simone Libralato, Franceso Colloca, Ali C. Gücü, Christos D. Maravelias, Cosimo Solidoro, Sebastián Villasante, and Massimiliano Cardinale. Editorial: Challenges and opportunities for the EU Common Fisheries Policy application in the Mediterranean and Black Sea. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Said:2018:CCF**

- [1231] Alicia Said, Joseph Tzanopoulos, and Douglas MacMillan. The contested commons: The failure of EU Fisheries Policy and Governance in the Mediterranean and the crisis enveloping the small-scale fisheries of Malta. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Costa:2018:ISV**

- [1232] Cibele R. Costa, Monica F. Costa, David V. Dantas, and Mario Barletta. Interannual and seasonal variations in estuarine water quality. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Watson:2018:PFS**

- [1233] Sheree J. Watson, Barbara J. Cade-Menun, Joseph A. Needoba, and Tawnya D. Peterson. Phosphorus forms in sediments of a river-dominated estuary. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Garcia-Hernandez:2018:FCS**

- [1234] Jaaziel E. García-Hernández, Phillip J. Sanchez, Nicholas M. Hammerman, and Nikolaos V. Schizas. Fish, coral, and sponge assemblages associated with altiphotic and mesophotic reefs along the Guánica Biosphere Reserve Continental Shelf Edge, Southwest Puerto Rico. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Troncoso:2018:CTH**

- [1235] Macarena Troncoso, Gerardo Garcia, Josefa Verdugo, and Laura Farías. Corrigendum: Toward high-resolution vertical measurements of dissolved greenhouse gases (nitrous oxide and methane) and nutrients in the Eastern South Pacific. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745. See [1079].

**Berthold:2018:PCR**

- [1236] Maximilian Berthold, Dana Zimmer, Volker Reiff, and Rhena Schumann. Phosphorus contents re-visited after 40 years in muddy and sandy sediments of a temperate lagoon system. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Walker:2018:EPR**

- [1237] Charlotte E. Walker, Sarah Heath, Deborah L. Salmon, Nicholas Smirnoff, Gerald Langer, Alison R. Taylor, Colin Brownlee, and Glen L. Wheeler. An extracellular polysaccharide-rich organic layer contributes to organization of the coccosphere in coccolithophores. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Dinasquet:2018:EBA**

- [1238] Julie Dinasquet, Marja Tirola, and Farooq Azam. Enrichment of bacterioplankton able to utilize one-carbon and methylated compounds in the coastal Pacific Ocean. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Roiha:2018:ECA**

- [1239] Petra Roiha, Simo-Matti Siiriä, Noora Haavisto, Pekka Alenius, Antti Westerlund, and Tero Purokoski. Estimating currents from Argo trajectories in the Bothnian Sea, Baltic Sea. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Ivanina:2018:RVE**

- [1240] Anna V. Ivanina, Ballav Borah, Tadas Rimkevicius, Jason Macrander, Helen Piontkivska, Inna M. Sokolova, and Elia Beniash. The role of the vascular endothelial growth factor (VEGF) signaling in biomineralization of the oyster *Crassostrea gigas*. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Filella:2018:PCR**

- [1241] Alba Filella, Isabel Baños, María F. Montero, Nuzet Hernández-Hernández, Adriana Rodríguez-Santos, Andrea Ludwig, Ulf Riebesell,

and Javier Aristegui. Plankton community respiration and ETS activity under variable CO<sub>2</sub> and nutrient fertilization during a mesocosm study in the subtropical North Atlantic. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Dums:2018:MTP**

- [1242] Jacob Dums, Colin Murphree, Naresh Vasani, Danielle Young, and Heike Sederoff. Metabolic and transcriptional profiles of *Dunaliella viridis* supplemented with ammonium derived from glutamine. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Kriefall:2018:RAS**

- [1243] Nicola G. Kriefall, Jan A. Pechenik, Anthony Pires, and Sarah W. Davies. Resilience of Atlantic slippersnail *Crepidula fornicata* larvae in the face of severe coastal acidification. *Frontiers in Marine Science*, 5, August 2018. ISSN 2296-7745.

**Efimova:2018:SMG**

- [1244] Irina Efimova, Margarita Bagaeva, Andrei Bagaev, Alexander Kileso, and Irina P. Chubarenko. Secondary microplastics generation in the sea swash zone with coarse bottom sediments: Laboratory experiments. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Stewart:2018:RPS**

- [1245] Joshua D. Stewart, Fabrice R. A. Jaine, Amelia J. Armstrong, Asia O. Armstrong, Michael B. Bennett, Katherine B. Burgess, Lydie I. E. Couturier, Donald A. Croll, Melissa R. Cronin, Mark H. Deakos, Christine L. Dudgeon, Daniel Fernando, Niv Froman, Elitza S. Germanov, Martin A. Hall, Silvia Hinojosa-Alvarez, Jane E. Hosegood, Tom Kashiwagi, Betty J. L. Laglbauer, Nerea Lezama-Ochoa, Andrea D. Marshall, Frazer McGregor, Giuseppe Notarbartolo di Sciara, Marta D. Palacios, Lauren R. Peel, Anthony J. Richardson, Robert D. Rubin, Kathy A. Townsend, Stephanie K. Venables, and Guy M. W. Stevens. Research priorities to support effective manta and devil ray conservation. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Miller:2018:CPM**

- [1246] Rachel L. Miller, Helene Marsh, Alison Cottrell, and Mark Hamann. Corrigendum: Protecting migratory species in the Australian marine environment: a cross-jurisdictional analysis of policy and management plans. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745. See [1160].



**Ramos:2018:BDA**

- [1247] Eric A. Ramos, Brigid Maloney, Marcelo O. Magnasco, and Diana Reiss. Bottlenose dolphins and Antillean manatees respond to small multi-rotor unmanned aerial systems. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Gagne:2018:STP**

- [1248] Tyler O. Gagné, K. David Hyrenbach, Molly E. Hagemann, Oron L. Bass, Stuart L. Pimm, Mark MacDonald, Brian Peck, and Kyle S. Van Houtan. Seabird trophic position across three ocean regions tracks ecosystem differences. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Crise:2018:CFD**

- [1249] Alessandro Crise, Maurizio Ribera d'Alcalà, Patrizio Mariani, George Petihakis, Julie Robidart, Daniele Iudicone, Ralf Bachmayer, and Francesca Malfatti. A conceptual framework for developing the next generation of Marine OBServatories (MOBs) for science and society. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Torres:2018:DQW**

- [1250] Leigh G. Torres, Sharon L. Nieukirk, Leila Lemos, and Todd E. Chandler. Drone up! Quantifying whale behavior from a new perspective improves observational capacity. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Lin:2018:SEV**

- [1251] Chih-Hsien Lin, Kevin J. Flynn, Aditee Mitra, and Patricia M. Glibert. Simulating effects of variable stoichiometry and temperature on mixotrophy in the harmful dinoflagellate *Karlodinium veneficum*. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Wells:2018:MBH**

- [1252] R. J. David Wells, Thomas C. TinHan, Michael A. Dance, J. Marcus Drymon, Brett Falterman, Matthew J. Ajemian, Gregory W. Stunz, John A. Mohan, Eric R. Hoffmayer, William B. Driggers, and Jennifer A. McKinney. Movement, behavior, and habitat use of a marine apex predator, the scalloped hammerhead. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Zaiko:2018:ALE**

- [1253] Anastasija Zaiko, Xavier Pochon, Eva Garcia-Vazquez, Sergej Olenin, and Susanna A. Wood. Advantages and limitations of environmental

DNA/RNA tools for marine biosecurity: Management and surveillance of non-indigenous species. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Walton:2018:IRM**

- [1254] Charles J. Walton, Nicole K. Hayes, and David S. Gilliam. Impacts of a regional, multi-year, multi-species coral disease outbreak in Southeast Florida. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Haavisto:2018:AFN**

- [1255] Noora Haavisto, Laura Tuomi, Petra Roiha, Simo-Matti Siiriä, Pekka Alenius, and Tero Purokoski. Argo Floats as a novel part of the monitoring the hydrography of the Bothnian Sea. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Zhang:2018:ODD**

- [1256] Yong Zhang, Xuelu Gao, Weidong Guo, Jianmin Zhao, and Yanfang Li. Origin and dynamics of dissolved organic matter in a mariculture area suffering from summertime hypoxia and acidification. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Fox:2018:CST**

- [1257] Emily Fox, Erin Meyer, Natalie Panasiak, and Alison R. Taylor. Calcein staining as a tool to investigate coccolithophore calcification. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Spilling:2018:SDD**

- [1258] Kristian Spilling, Kalle Olli, Jouni Lehtoranta, Anke Kremp, Letizia Tedesco, Tobias Tamelander, Riina Klais, Heikki Peltonen, and Timo Tamminen. Shifting diatom — dinoflagellate dominance during spring bloom in the Baltic Sea and its potential effects on biogeochemical cycling. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Bittig:2018:ASC**

- [1259] Henry C. Bittig, Tobias Steinhoff, Hervé Claustre, Björn Fiedler, Nancy L. Williams, Raphaëlle Sauzède, Arne Körtzinger, and Jean-Pierre Gattuso. An alternative to static climatologies: Robust estimation of open ocean CO<sub>2</sub> variables and nutrient concentrations from T, S, and O<sub>2</sub> data using Bayesian neural networks. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Burnham:2018:GWE**

- [1260] Rianna Burnham, David Duffus, and Xavier Mouy. Gray whale (*Eschrichtius robustus*) call types recorded during migration off the West Coast of Vancouver Island. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Taucher:2018:RSP**

- [1261] Jan Taucher, Javier Arístegui, Lennart T. Bach, Wanchun Guan, María F. Montero, Alice Nauendorf, Eric P. Achterberg, and Ulf Riebesell. Response of subtropical phytoplankton communities to ocean acidification under oligotrophic conditions and during nutrient fertilization. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Campbell:2018:MBC**

- [1262] Marnie L. Campbell, Kaeden Leonard, Carmen Primo, and Chad L. Hewitt. Marine biosecurity crisis decision-making: Two tools to aid “Go”/“No go” decision-making. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Orberg:2018:CFM**

- [1263] Sarah B. Orberg, Dorte Krause-Jensen, Kim N. Mouritsen, Birgit Olesen, Núria Marbà, Martin H. Larsen, Martin E. Blicher, and Mikael K. Sejr. Canopy-forming macroalgae facilitate recolonization of sub-arctic intertidal fauna and reduce temperature extremes. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Constantine:2018:FDR**

- [1264] Rochelle Constantine, Takashi Iwata, Sharon L. Nieukirk, and Gwenith S. Penry. Future directions in research on Bryde’s whales. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Wilson:2018:EME**

- [1265] Samuel T. Wilson and Matthew J. Church. Editorial: Microbial ecology in the North Pacific Subtropical Gyre. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Medina-Elizalde:2018:TDP**

- [1266] Jennifer Medina-Elizalde, Ernesto García-Mendoza, Andrew D. Turner, Yaireb Alejandra Sánchez-Bravo, and Ramón Murillo-Martínez. Transformation and depuration of paralytic shellfish toxins in the geoduck clam *Panopea globosa* from the Northern Gulf of California. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Hart:2018:MTO**

- [1267] Kristen M. Hart, Autumn R. Iverson, Ikuko Fujisaki, Margaret M. Lamont, David Bucklin, and Donna J. Shaver. Marine threats overlap key foraging habitat for two imperiled sea turtle species in the Gulf of Mexico. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Gattuso:2018:OSA**

- [1268] Jean-Pierre Gattuso, Alexandre K. Magnan, Laurent Bopp, William W. L. Cheung, Carlos M. Duarte, Jochen Hinkel, Elizabeth Mcleod, Fiorenza Micheli, Andreas Oschlies, Phillip Williamson, Raphaël Billé, Vasiliki I. Chalastani, Ruth D. Gates, Jean-Olivier Irisson, Jack J. Middelburg, Hans-Otto Pörtner, and Greg H. Rau. Ocean solutions to address climate change and its effects on marine ecosystems. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Fleming:2018:UCS**

- [1269] Alyson H. Fleming, Nicholas M. Kellar, Camryn D. Allen, and Carolyn M. Kurle. The utility of combining stable isotope and hormone analyses for marine megafauna research. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**MacDonald:2018:EIF**

- [1270] Alan MacDonald, Douglas C. Speirs, Simon P. R. Greenstreet, and Michael R. Heath. Exploring the influence of food and temperature on North Sea sandeels using a new dynamic energy budget model. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Chabanet:2018:IUT**

- [1271] Pascale Chabanet, Georgeta Stoica, Stéphanie M. Carrière, Catherine Sabinot, Claire Bedrossian, and Jocelyne Ferraris. Impact of the use of a teaching toolbox in an awareness campaign on children's representations of coral reefs. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Currie:2018:WWH**

- [1272] Bronwen Currie, Anne Christine Utne-Palm, and Anne Gro Vea Salvanes. Winning ways with hydrogen sulphide on the Namibian Shelf. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Jurasinski:2018:UCE**

- [1273] Gerald Jurasinski, Manon Janssen, Maren Voss, Michael E. Böttcher, Martin Brede, Hans Burchard, Stefan Forster, Lennart Gosch, Ulf Gräwe,

Sigrid Gründling-Pfaff, Fouzia Haider, Miriam Ibenthal, Nils Karow, Ulf Karsten, Matthias Kreuzburg, Xaver Lange, Peter Leinweber, Gudrun Massmann, Thomas Ptak, Fereidoun Rezanezhad, Gregor Rehder, Katharina Romoth, Hanna Schade, Hendrik Schubert, Heide Schulz-Vogt, Inna M. Sokolova, Robert Strehse, Viktoria Unger, Julia Westphal, and Bernd Lennartz. Understanding the coastal ecocline: Assessing sea-land interactions at non-tidal, low-lying coasts through interdisciplinary research. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Gomes:2018:IRN**

- [1274] Helga do Rosario Gomes, Qian Xu, Joji Ishizaka, Edward J. Carpenter, Patricia L. Yager, and Joaquim I. Goes. The influence of riverine nutrients in niche partitioning of phytoplankton communities — a contrast between the Amazon River Plume and the Changjiang (Yangtze) River diluted water of the East China Sea. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Venturelli:2018:EFI**

- [1275] Ryan A. Venturelli, Anthony E. Rathburn, Ashley M. Burkett, and Wiebke Ziebis. Epifaunal foraminifera in an infaunal world: Insights into the influence of heterogeneity on the benthic ecology of oxygen-poor, deep-sea habitats. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Gaspar:2018:CBM**

- [1276] Tamara R. Gaspar, Richard J. Chi, Matthew W. Parrow, and Amy H. Ringwood. Cellular bioreactivity of micro- and nano-plastic particles in oysters. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Bax:2018:LCD**

- [1277] Nicholas J. Bax, Ward Appeltans, Russell Brainard, J. Emmett Duffy, Piers Dunstan, Quentin Hanich, Harriet Harden Davies, Jeremy Hills, Patricia Miloslavich, Frank Edgar Muller-Karger, Samantha Simmons, O. Aburto-Oropeza, Sonia Batten, Lisandro Benedetti-Cecchi, David Checkley, Sanae Chiba, Albert Fischer, Melissa Andersen Garcia, John Gunn, Eduardo Klein, Raphael M. Kudela, Francis Marsac, David Obura, Yunne-Jai Shin, Bernadette Sloyan, Toste Tanhua, and John Wilkin. Linking capacity development to GOOS monitoring networks to achieve sustained ocean observation. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**BinSanChan:2018:CFM**

- [1278] Vera Bin San Chan, Mary Beth Johnstone, A. P. Wheeler, and Andrew S. Mount. Chitin facilitated mineralization in the eastern oyster. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Pupier:2018:SSC**

- [1279] Chloé A. Pupier, Vanessa N. Bednarz, and Christine Ferrier-Pagès. Studies with soft corals — recommendations on sample processing and normalization metrics. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Veilleux:2018:MRE**

- [1280] Heather D. Veilleux, Taewoo Ryu, Jennifer M. Donelson, Timothy Ravasi, and Philip L. Munday. Molecular response to extreme summer temperatures differs between two genetically differentiated populations of a coral reef fish. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Steckbauer:2018:PAE**

- [1281] Alexandra Steckbauer, Carlos Díaz-Gil, Josep Alós, Ignacio A. Catalán, and Carlos M. Duarte. Predator avoidance in the European seabass after recovery from short-term hypoxia and different CO<sub>2</sub> conditions. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Hu:2018:HDN**

- [1282] Sarah K. Hu, Paige E. Connell, Lisa Y. Mesrop, and David A. Caron. A hard day's night: Diel shifts in microbial eukaryotic activity in the North Pacific Subtropical Gyre. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Sanders:2018:HCC**

- [1283] Trystan Sanders, Lara Schmittmann, Jennifer C. Nascimento-Schulze, and Frank Melzner. High calcification costs limit mussel growth at low salinity. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Checa:2018:PBD**

- [1284] Antonio G. Checa. Physical and biological determinants of the fabrication of molluscan shell microstructures. *Frontiers in Marine Science*, 5, September 2018. ISSN 2296-7745.

**Lacour:2018:RSP**

- [1285] Thomas Lacour, Jade Larivière, Joannie Ferland, Flavienne Bruyant, Johann Lavaud, and Marcel Babin. The role of sustained photoprotective

non-photochemical quenching in low temperature and high light acclimation in the bloom-forming Arctic diatom *Thalassiosira gravida*. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Lafferty:2018:DSC**

- [1286] Kevin D. Lafferty, Kasey C. Benesh, Andrew R. Mahon, Christopher L. Jerde, and Christopher G. Lowe. Detecting Southern California's white sharks with environmental DNA. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Fortuna:2018:CEU**

- [1287] Caterina Maria Fortuna, Ana Cañadas, Draško Holcer, Benedetta Breciaroli, Gregory P. Donovan, Bojan Lazar, Giulia Mo, Leonardo Tunesi, and Peter C. Mackelworth. The coherence of the European Union Marine Natura 2000 Network for wide-ranging charismatic species: a Mediterranean case study. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Zbinden:2018:BYN**

- [1288] Magali Zbinden, Alison Gallet, Kamil M. Szafranski, Julia Machon, Juliette Ravaux, Nelly Léger, and Sébastien Duperron. Blow your nose, shrimp! Unexpectedly dense bacterial communities occur on the antennae and antennules of hydrothermal vent shrimp. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Wohlrab:2018:MPI**

- [1289] Sylke Wohlrab, Jan M. Falcke, Senjie Lin, Huan Zhang, Stefan Neuhaus, Stephanie Elferink, Daniela Voss, Oliver Zielinski, and Uwe John. Metatranscriptome profiling indicates size-dependent differentiation in plastic and conserved community traits and functional diversification in dinoflagellate communities. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Townsend:2018:CIM**

- [1290] Michael Townsend, Kate Davies, Nicholas Hanley, Judi E. Hewitt, Carolyn J. Lundquist, and Andrew M. Lohrer. The challenge of implementing the marine ecosystem service concept. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Iriarte:2018:NHI**

- [1291] José L. Iriarte. Natural and human influences on marine processes in Patagonian subantarctic coastal waters. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Lindh:2018:SBE**

- [1292] Markus V. Lindh and Jarone Pinhassi. Sensitivity of bacterioplankton to environmental disturbance: a review of Baltic Sea field studies and experiments. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Mills:2018:NLS**

- [1293] Matthew M. Mills, Zachary W. Brown, Samuel R. Laney, Eva Ortega-Retuerta, Kate E. Lowry, Gert L. van Dijken, and Kevin R. Arrigo. Nitrogen limitation of the summer phytoplankton and heterotrophic prokaryote communities in the Chukchi Sea. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Grzegorzczuk:2018:MMB**

- [1294] Maciej Grzegorzczuk, Stanisław Józef Pogorzelski, Aneta Pospiech, and Katarzyna Boniewicz-Szmyt. Monitoring of marine biofilm formation dynamics at submerged solid surfaces with multitechnique sensors. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Hillman:2018:CAC**

- [1295] Jenny R. Hillman, Carolyn J. Lundquist, and Simon F. Thrush. The challenges associated with connectivity in ecosystem processes. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Borbor-Cordova:2018:RPC**

- [1296] Mercy J. Borbor-Córdova, Mireya Pozo-Cajas, Alexandra Cedeno-Montesdeoca, Gabriel Mantilla Saltos, Chippie Kislik, Maria E. Espinoza-Celi, Rene Lira, Omar Ruiz-Barzola, and Gladys Torres. Risk perception of coastal communities and authorities on harmful algal blooms in Ecuador. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Hernandez-Becerril:2018:ADP**

- [1297] David U. Hernández-Becerril, Winnie L. S. Lau, Kieng S. Hii, Chui P. Leaw, F. Varona-Cordero, and Po T. Lim. Abundance and distribution of the potentially toxic thecate dinoflagellate *Alexandrium tamiyavanichii* (Dinophyceae) in the Central Mexican Pacific, using the quantitative PCR method. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Echevin:2018:FEC**

- [1298] Vincent Echevin, Francois Colas, Dante Espinoza-Morriberon, Luis Vasquez, Tony Anculle, and Dimitri Gutierrez. Forcings and evolution



of the 2017 coastal El Niño off Northern Peru and Ecuador. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Hvas:2018:OUO**

- [1299] Malthe Hvas, Tom Ole Nilsen, and Frode Oppedal. Oxygen uptake and osmotic balance of Atlantic salmon in relation to exercise and salinity acclimation. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Nardone:2018:AIO**

- [1300] Jessica A. Nardone, Shrey Patel, Kyle R. Siegel, Dana Tedesco, Conall G. McNicholl, Jessica O'Malley, Jack Herrick, Rebecca A. Metzler, Beatriz Orihuela, Daniel Rittschof, and Gary H. Dickinson. Assessing the impacts of ocean acidification on adhesion and shell formation in the barnacle *Amphibalanus amphitrite*. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Kuwata:2018:BSP**

- [1301] Akira Kuwata, Kazumasa Yamada, Mutsuo Ichinomiya, Shinya Yoshikawa, Margot Tragin, Daniel Vaultot, and Adriana Lopes dos Santos. Bolidophyceae, a sister picoplanktonic group of diatoms — a review. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Harvey:2018:DAH**

- [1302] Ben P. Harvey, Sylvain Agostini, Shigeki Wada, Kazuo Inaba, and Jason M. Hall-Spencer. Dissolution: The Achilles' Heel of the triton shell in an acidifying ocean. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**vanEmmerik:2018:MCR**

- [1303] Tim van Emmerik, Thuy-Chung Kieu-Le, Michelle Loozen, Kees van Oeveren, Emilie Strady, Xuan-Thanh Bui, Matthias Egger, Johnny Gasperi, Laurent Lebreton, Phuoc-Dan Nguyen, Anna Schwarz, Boyan Slat, and Bruno Tassin. A methodology to characterize riverine macroplastic emission into the ocean. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Kubota:2018:FAM**

- [1304] Kazuki Kubota, Hiroyuki Kintsu, Akihiro Matsuura, Yasushi Tsuchihashi, Takeshi Takeuchi, Noriyuki Satoh, and Michio Suzuki. Functional analyses of MMPs for aragonite crystal formation in the ligament of *Pinctada fucata*. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**doRosarioGomes:2018:ILA**

- [1305] Helga do Rosario Gomes, Kali McKee, Anxhela Mile, Sharanya Thandapu, Khalid Al-Hashmi, Xiaojian Jiang, and Joaquim I. Goes. Influence of light availability and prey type on the growth and photo-physiological rates of the mixotroph *Noctiluca scintillans*. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745. See corrigendum [1808].

**Pouso:2018:FIE**

- [1306] Sarai Pouso, Silvia Ferrini, R. Kerry Turner, María C. Uyarra, and Ángel Borja. Financial inputs for ecosystem service outputs: Beach recreation recovery after investments in ecological restoration. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Himes-Cornell:2018:MES**

- [1307] Amber Himes-Cornell, Susan O. Grose, and Linwood Pendleton. Mangrove ecosystem service values and methodological approaches to valuation: Where do we stand? *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Ceia:2018:SID**

- [1308] Filipe R. Ceia, Yves Cherel, Vitor H. Paiva, and Jaime A. Ramos. Stable isotope dynamics ( $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$ ) in neritic and oceanic waters of the North Atlantic inferred from GPS-tracked Cory's shearwaters. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Weiler:2018:BCT**

- [1309] Bradley A. Weiler, Joost T. P. Verhoeven, and Suzanne C. Dufour. Bacterial communities in tissues and surficial mucus of the cold-water coral *Paragorgia arborea*. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Lischka:2018:RPC**

- [1310] Silke Lischka, Paul Stange, and Ulf Riebesell. Response of pelagic calcifiers (Foraminifera, Thecosomata) to ocean acidification during oligotrophic and simulated up-welling conditions in the subtropical North Atlantic off Gran Canaria. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Diaz:2018:DOP**

- [1311] Julia M. Diaz, Alisia Holland, James G. Sanders, Karrie Bulski, Douglas Mollett, Chau-Wen Chou, Dennis Phillips, Yuanzhi Tang, and

Solange Duhamel. Dissolved organic phosphorus utilization by phytoplankton reveals preferential degradation of polyphosphates over phosphomonoesters. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Cavallo:2018:MAP**

- [1312] Catherine Cavallo, André Chiaradia, Bruce E. Deagle, Julie C. McInnes, Sonia Sánchez, Graeme C. Hays, and Richard D. Reina. Molecular analysis of predator scats reveals role of salps in temperate inshore food webs. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Sharma:2018:TME**

- [1313] Prabin Kumar Sharma, Manalisha Saharia, Richa Srivstava, Sanjeev Kumar, and Lingaraj Sahoo. Tailoring microalgae for efficient biofuel production. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Bergen:2018:IMI**

- [1314] Benjamin Bergen, Michael Naumann, Daniel P. R. Herlemann, Ulf Gräwe, Matthias Labrenz, and Klaus Jürgens. Impact of a major inflow event on the composition and distribution of bacterioplankton communities in the Baltic Sea. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Mohrholz:2018:MBI**

- [1315] Volker Mohrholz. Major Baltic inflow statistics — revised. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Leong:2018:ECA**

- [1316] Rick C. Leong, Ezequiel M. Marzinelli, Jeffrey Low, Andrew G. Bauman, Elton W. X. Lim, Chin Y. Lim, Peter D. Steinberg, and James R. Guest. Effect of coral-algal interactions on early life history processes in *Pocillopora acuta* in a highly disturbed coral reef system. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Nausch:2018:CUD**

- [1317] Monika Nausch, Eric P. Achterberg, Lennart T. Bach, Corinna P. D. Brussaard, Katharine J. Crawford, Jenny Fabian, Ulf Riebesell, Annegret Stuhr, Juliane Unger, and Nicola Wannicke. Concentrations and uptake of dissolved organic phosphorus compounds in the Baltic Sea. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Villar:2018:SCR**

- [1318] Emilie Villar, Vincent Dani, Estelle Bigeard, Tatiana Linhart, Miguel Mendez-Sandin, Charles Bachy, Christophe Six, Fabien Lombard, Cécile Sabourault, and Fabrice Not. Symbiont chloroplasts remain active during bleaching-like response induced by thermal stress in *Collozoum pelagicum* (Collodaria, Retaria). *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Boniewicz-Szmyt:2018:ISC**

- [1319] Katarzyna Boniewicz-Szmyt and Stanisław Józef Pogorzelski. Influence of surfactant concentration and temperature gradients on spreading of crude-oil at sea. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Paris:2018:BGS**

- [1320] Claire B. Paris, Igal Berenshtein, Marcia L. Trillo, Robin Faillettaz, Maria J. Olascoaga, Zachary M. Aman, Micheal Schlüter, and Samantha B. Joye. BP Gulf Science Data reveals ineffectual subsea dispersant injection for the Macondo Blowout. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Bucher:2018:CRP**

- [1321] Daniel J. Bucher and Peter L. Harrison. Changes in radial polyp tissues of *Acropora longicyathus* after long-term exposure to experimentally elevated nutrient concentrations. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Engelen:2018:HDC**

- [1322] Aschwin H. Engelen, Tânia Aires, Mark J. A. Vermeij, Gerhard J. Herndl, Ester A. Serrão, and Pedro R. Frade. Host differentiation and compartmentalization of microbial communities in the azooxanthellate cupcorals *Tubastrea coccinea* and *Rhizopsammia goesi* in the Caribbean. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Rivera-Ortega:2018:CAC**

- [1323] Jacqueline Rivera-Ortega and Patricia E. Thomé. Contrasting antibacterial capabilities of the surface mucus layer from three symbiotic cnidarians. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Sassenhagen:2018:CST**

- [1324] Ingrid Sassenhagen, Yida Gao, Yesid Lozano-Duque, Michael L. Parsons, Tyler B. Smith, and Deana L. Erdner. Comparison of spatial and temporal genetic differentiation in a harmful dinoflagellate species emphasizes

impact of local processes. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Guinder:2018:PMA**

- [1325] Valeria A. Guinder, Urban Tillmann, Bernd Krock, Ana L. Delgado, Torben Krohn, John E. Garzón Cardona, Katja Metfies, Celeste López Abbate, Ricardo Silva, and Rubén Lara. Plankton multiproxy analyses in the Northern Patagonian Shelf, Argentina: Community structure, phyco toxins, and characterization of toxic *Alexandrium* strains. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Cael:2018:PFM**

- [1326] B. B. Cael and Kelsey Bisson. Particle flux parameterizations: Quantitative and mechanistic similarities and differences. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Pinon-Gonzalez:2018:EPM**

- [1327] Victor M. Piñón-González and Anastazia T. Banaszak. Effects of partial mortality on growth, reproduction and total lipid content in the elkhorn coral *Acropora palmata*. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Reidenbach:2018:ISZ**

- [1328] Matthew A. Reidenbach and Emily L. Thomas. Influence of the seagrass, *Zostera marina*, on wave attenuation and bed shear stress within a shallow coastal bay. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Bates:2018:SCC**

- [1329] Nicholas Robert Bates. Seawater carbonate chemistry distributions across the Eastern South Pacific Ocean sampled as part of the GEO-TRACES project and changes in marine carbonate chemistry over the past 20 years. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Udyawer:2018:FDR**

- [1330] Vinay Udyawer, Peter Barnes, Xavier Bonnet, François Brischoux, Jenna M. Crowe-Riddell, Blanche D’Anastasi, Bryan G. Fry, Amber Gillett, Claire Goiran, Michael L. Guinea, Harold Heatwole, Michelle R. Heupel, Mathew Hourston, Mervi Kangas, Alan Kendrick, Inigo Koefoed, Harvey B. Lillywhite, Aaron S. Lobo, Vimoksalehi Lukoschek, Rory McAuley, Charlotte Nitschke, Arne R. Rasmussen, Kate L. Sanders, Coleman Sheehy, Richard Shine, Ruchira Somaweera, Samuel S. Sweet, and Harold K. Voris. Future directions in the research and management

of marine snakes. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Asaad:2018:DSP**

- [1331] Irawan Asaad, Carolyn J. Lundquist, Mark V. Erdmann, Ruben Van Hooidek, and Mark J. Costello. Designating spatial priorities for marine biodiversity conservation in the coral triangle. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Newman:2018:LSC**

- [1332] David J. Newman. “From large-scale collections to the potential use of genomic techniques for supply of drug candidates”. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Virtanen:2018:EGA**

- [1333] Elina A. Virtanen, Markku Viitasalo, Juho Lappalainen, and Atte Moilanen. Evaluation, gap analysis, and potential expansion of the Finnish Marine Protected Area Network. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Battista:2018:BCI**

- [1334] Willow Battista, Rainer Romero-Canyas, Sarah Lindley Smith, Jose Fraire, Micah Efron, Dylan Larson-Konar, and Rod Fujita. Behavior change interventions to reduce illegal fishing. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**vanHaren:2018:GCP**

- [1335] Hans van Haren. Grand challenges in physical oceanography. *Frontiers in Marine Science*, 5, October 2018. ISSN 2296-7745.

**Lundquist:2018:ABR**

- [1336] Carolyn J. Lundquist, David Bowden, Katie Cartner, Fabrice Stephenson, Ian Tuck, and Judi E. Hewitt. Assessing benthic responses to fishing disturbance over broad spatial scales that incorporate high environmental variation. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Davis:2018:HFP**

- [1337] Kathryn Davis, Peter M. Carlson, and Jennifer E. Caselle. Herbivorous fish populations respond positively to a shipwreck removal and associated alteration of benthic habitat. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Wekerle:2018:PST**

- [1338] Claudia Wekerle, Thomas Krumpen, Tilman Dinter, Wilken-Jon von Appen, Morten Hvitfeldt Iversen, and Ian Salter. Properties of sediment trap catchment areas in Fram Strait: Results from Lagrangian modeling and remote sensing. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Karlsson:2018:EEM**

- [1339] Konrad Karlsson and Monika Winder. Ecosystem effects of morphological and life history traits in two divergent zooplankton populations. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Cuellar-Martinez:2018:APH**

- [1340] Tomasa Cuellar-Martinez, Ana Carolina Ruiz-Fernández, Carlos Alonso-Hernández, Oscar Amaya-Monterrosa, Rebeca Quintanilla, Hector Leonel Carrillo-Ovalle, Natalia Arbeláez M., Lisbet Díaz-Asencio, Silvia M. Méndez, Maribelle Vargas, Ninoska Fabiola Chow-Wong, Lorelys Rosario Valerio-Gonzalez, Henrik Enevoldsen, and Marie-Yasmine Dechraoui Bottein. Addressing the problem of harmful algal blooms in Latin America and the Caribbean — a regional network for early warning and response. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Kumala:2018:CDR**

- [1341] Lars Kumala and Donald Eugene Canfield. Contraction dynamics and respiration of small single-osculum explants of the demosponge *Halichondria panicea*. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Amaya:2018:LSS**

- [1342] Oscar Amaya, Rebeca Quintanilla, Brian A. Stacy, Marie-Yasmine Dechraoui Bottein, Leanne Flewelling, Robert Hardy, Celina Dueñas, and Gerardo Ruiz. Large-scale sea turtle mortality events in El Salvador attributed to paralytic shellfish toxin-producing algae blooms. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Andrades:2018:IBS**

- [1343] Ryan Andrades, Fabíola Seabra Machado, José Amorim Reis-Filho, Raphael M. Macieira, and Tommaso Giarrizzo. Intertidal biogeographic subprovinces: Local and regional factors shaping fish assemblages. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Lipka:2018:SRR**

- [1344] Marko Lipka, Jana Woelfel, Mayya Gogina, Jens Kallmeyer, Bo Liu, Claudia Morys, Stefan Forster, and Michael E. Böttcher. Solute reservoirs reflect variability of early diagenetic processes in temperate brackish surface sediments. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Kelly:2018:SLM**

- [1345] Rachel Kelly, Aysha Fleming, and Gretta T. Pecl. Social licence for marine conservation science. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Edman:2018:NRS**

- [1346] Moa Edman, Kari Eilola, Elin Almroth-Rosell, H. E. Markus Meier, Iréne Wählström, and Lars Arneborg. Nutrient retention in the Swedish coastal zone. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Paulsen:2018:AAO**

- [1347] Maria L. Paulsen, Lena Seuthe, Marit Reigstad, Aud Larsen, Mattias R. Cape, and Maria Vernet. Asynchronous accumulation of organic carbon and nitrogen in the Atlantic gateway to the Arctic Ocean. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Fowles:2018:EPA**

- [1348] Amelia E. Fowles, Graham J. Edgar, Rick D. Stuart-Smith, James B. Kirkpatrick, Nicole Hill, Russell J. Thomson, and Elisabeth M. A. Strain. Effects of pollution from anthropogenic point sources on the recruitment of sessile estuarine reef biota. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Fossberg:2018:PUK**

- [1349] Julia Fossberg, Silje Forbord, Ole Jacob Broch, Arne M. Malzahn, Henrice Jansen, Aleksander Handå, Henny Førde, Maria Bergvik, Anne Lise Fleddum, Jorunn Skjermo, and Yngvar Olsen. The potential for up-scaling kelp (*Saccharina latissima*) cultivation in salmon-driven integrated multi-trophic aquaculture (IMTA). *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Fiedler:2018:PLW**

- [1350] Paul C. Fiedler, Jessica V. Redfern, Karin A. Forney, Daniel M. Palacios, Corey Sheredy, Kristin Rasmussen, Ignacio García-Godos, Luis Santillán, Michael J. Tetley, Fernando Félix, and Lisa T. Ballance. Prediction of large whale distributions: a comparison of presence-absence



and presence-only modeling techniques. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Fraschetti:2018:LSM**

- [1351] Simonetta Frascchetti, Carlo Pipitone, Antonios D. Mazaris, Gil Rilov, Fabio Badalamenti, Stanislao Bevilacqua, Joachim Claudet, Hrvoje Carić, Karsten Dahl, Giovanni D'Anna, Darius Daunys, Matthew Frost, Elena Gissi, Cordula Göke, Paul Goriup, Giuseppe Guarnieri, Drasko Holcer, Bojan Lazar, Peter Mackelworth, Sonia Manzo, Georg Martin, Andreas Palialexis, Marina Panayotova, Dimitra Petza, Bob Rumes, Valentina Todorova, and Stelios Katsanevakis. Light and shade in marine conservation across European and contiguous seas. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Menezes:2018:GAD**

- [1352] Mariângela Menezes, Suema Branco, Maria Cecília Miotto, and Catharina Alves de Souza. The genus *Alexandrium* (Dinophyceae, Dinophyta) in Brazilian coastal waters. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Zhang:2018:CBD**

- [1353] Qian Zhang, Peter J. Tango, Rebecca R. Murphy, Melinda K. Forsyth, Richard Tian, Jennifer Keisman, and Emily M. Trentacoste. Chesapeake Bay dissolved oxygen criterion attainment deficit: Three decades of temporal and spatial patterns. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Masotti:2018:IRD**

- [1354] Italo Masotti, Pilar Aparicio-Rizzo, Mariela A. Yevenes, René Garreaud, Lucy Belmar, and Laura Farías. The influence of river discharge on nutrient export and phytoplankton biomass off the Central Chile Coast (33°–37°S): Seasonal cycle and interannual variability. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Weijerman:2018:MLS**

- [1355] Mariska Weijerman, Lindsay Veazey, Susan Yee, Kellie Vaché, Jade M. S. Delevaux, Mary K. Donovan, Kim Falinski, Joey Lecky, and Kirsten L. L. Oleson. Managing local stressors for coral reef condition and ecosystem services delivery under climate scenarios. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Grenier:2018:DLS**

- [1356] Melanie Grenier, Ester Garcia-Solsona, Nolwenn Lemaitre, Thomas W. Trull, Vincent Bouvier, Philippe Nonnotte, Pieter van Beek, Marc

Souhaut, Francois Lacan, and Catherine Jeandel. Differentiating lithogenic supplies, water mass transport, and biological processes on and off the Kerguelen Plateau using rare earth element concentrations and neodymium isotopic compositions. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Lohrer:2018:BSP**

- [1357] Andrew Martin Lohrer, Lisa D. McCartain, Dane Buckthought, Iain MacDonald, and Darren M. Parsons. Benthic structure and pelagic food sources determine post-settlement snapper (*Chrysophrys auratus*) abundance. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Benson:2018:IOI**

- [1358] Abigail Benson, Cassandra M. Brooks, Gabrielle Canonico, Emmett Duffy, Frank Muller-Karger, Heidi M. Sosik, Patricia Miloslavich, and Eduardo Klein. Integrated observations and informatics improve understanding of changing marine ecosystems. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Fadeev:2018:MCE**

- [1359] Eduard Fadeev, Ian Salter, Vibe Schourup-Kristensen, Eva-Maria Nöthig, Katja Metfies, Anja Engel, Judith Piontek, Antje Boetius, and Christina Bienhold. Microbial communities in the East and West Fram Strait during sea ice melting season. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Goetsch:2018:ERM**

- [1360] Chandra Goetsch, Melinda G. Conners, Suzanne M. Budge, Yoko Mitani, William A. Walker, Jeffrey F. Bromaghin, Samantha E. Simmons, Colleen Reichmuth, and Daniel P. Costa. Energy-rich mesopelagic fishes revealed as a critical prey resource for a deep-diving predator using quantitative fatty acid signature analysis. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Meyer:2018:SDN**

- [1361] David Meyer, Ralf D. Prien, Louis Rautmann, Malte Pallentin, Joanna J. Waniek, and Detlef E. Schulz-Bull. In situ determination of nitrate and hydrogen sulfide in the Baltic Sea using an ultraviolet spectrophotometer. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Hays:2018:STS**

- [1362] Graeme C. Hays and Lucy A. Hawkes. Satellite tracking sea turtles: Opportunities and challenges to address key questions. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Camp:2018:EFC**

- [1363] Emma F. Camp, Verena Schoepf, Peter J. Mumby, and David J. Suggett. Editorial: The future of coral reefs subject to rapid climate change: Lessons from natural extreme environments. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Bartoli:2018:DCB**

- [1364] Marco Bartoli, Mindaugas Zilius, Mariano Bresciani, Diana Vaiciute, Irma Vybernaite-Lubiene, Jolita Petkuvienė, Gianmarco Giordani, Darius Daunys, Tomas Ruginis, Sara Benelli, Claudia Giardino, Paul A. Bukaveckas, Petras Zemlys, Evelina Griniene, Zita R. Gasiunaite, Jurate Lesutiene, Renata Pilkaitytė, and Arturas Baziukas-Razinkovas. Drivers of cyanobacterial blooms in a hypertrophic lagoon. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Koedooder:2018:RGS**

- [1365] Coco Koedooder, Audrey Guéneuguès, Rémy Van Geersdaële, Valérie Vergé, François-Yves Bouget, Yannick Labreuche, Ingrid Obernosterer, and Stéphane Blain. The role of the glyoxylate shunt in the acclimation to iron limitation in marine heterotrophic bacteria. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Bulan:2018:MSE**

- [1366] Dewi Embong Bulan, Alisa Wilantho, Sissades Tongshima, Voranop Viyakarn, Suchana Chavanich, and Naraporn Somboonna. Microbial and small eukaryotes associated with reefs in the Upper Gulf of Thailand. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Leymarie:2018:PNA**

- [1367] Edouard Leymarie, Christophe Penkerc'h, Vincenzo Vellucci, Christophe Lerebourg, David Antoine, Emmanuel Boss, Marlon R. Lewis, Fabrizio D'Ortenzio, and Hervé Claustre. ProVal: a new autonomous profiling float for high quality radiometric measurements. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Dawson:2018:CIA**

- [1368] Stephen M. Dawson, M. Hamish Bowman, Eva Leunissen, and Pascal Sirguy. Corrigendum: Inexpensive aerial photogrammetry for studies of whales and large marine animals. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745. See [856].

**tenBrink:2018:PCR**

- [1369] Talya S. ten Brink and Tracey Dalton. Perceptions of commercial and recreational fishers on the potential ecological impacts of the Block Island Wind Farm (US). *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Meier:2018:AEA**

- [1370] H. E. Markus Meier, Moa K. Edman, Kari J. Eilola, Manja Placke, Thomas Neumann, Helén C. Andersson, Sandra-Esther Brunnabend, Christian Dieterich, Claudia Frauen, René Friedland, Matthias Gröger, Bo G. Gustafsson, Erik Gustafsson, Alexey Isaev, Madline Kniebusch, Ivan Kuznetsov, Bärbel Müller-Karulis, Anders Omstedt, Vladimir Ryabchenko, Sofia Saraiva, and Oleg P. Savchuk. Assessment of eutrophication abatement scenarios for the Baltic Sea by multi-model ensemble simulations. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Bulan:2018:SSV**

- [1371] Dewi Embong Bulan, Alisa Wilantho, Patcharaporn Krainara, Voranop Viyakarn, Suchana Chavanich, and Naraporn Somboonna. Spatial and seasonal variability of reef bacterial communities in the Upper Gulf of Thailand. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Gaichas:2018:IEA**

- [1372] Sarah K. Gaichas, Geret S. DePiper, Richard J. Seagraves, Brandon W. Muffley, Mary G. Sabo, Lisa L. Colburn, and Andrew J. Loftus. Implementing ecosystem approaches to fishery management: Risk assessment in the US Mid-Atlantic. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Kripa:2018:OCD**

- [1373] Vasant Kripa, Kolliyil S. Mohamed, K. P. Said Koya, R. Jeyabaskaran, D. Prema, Shelton Padua, Somy Kuriakose, P. S. Anilkumar, Preetha G. Nair, T. V. Ambrose, A. M. Dhanya, K. S. Abhilash, John Bose, N. D. Divya, A. S. Shara, and P. G. Vishnu. Overfishing and climate drives changes in biology and recruitment of the Indian oil sardine *Sardinella longiceps* in Southeastern Arabian Sea. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Tait:2018:ELM**

- [1374] Leigh W. Tait and David R. Schiel. Ecophysiology of layered macroalgal assemblages: Importance of subcanopy species biodiversity in buffering

primary production. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Liberman:2018:OSR**

- [1375] Ronen Liberman, Tom Shlesinger, Yossi Loya, and Yehuda Benayahu. Octocoral sexual reproduction: Temporal disparity between mesophotic and shallow-reef populations. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Zoffoli:2018:RDP**

- [1376] Maria Laura Zoffoli, Zhongping Lee, and John F. Marra. Regionalization and dynamic parameterization of quantum yield of photosynthesis to improve the ocean primary production estimates from remote sensing. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Lenhart:2018:AEW**

- [1377] Hermann-Josef Lenhart and Fabian Große. Assessing the effects of WFD nutrient reductions within an OSPAR frame using trans-boundary nutrient modeling. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Neira:2018:DMB**

- [1378] Carlos Neira, Jeroen Ingels, Guillermo Mendoza, Elvira Hernandez-Lopez, and Lisa A. Levin. Distribution of meiofauna in bathyal sediments influenced by the oxygen minimum zone off Costa Rica. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**vanRooijen:2018:PCI**

- [1379] Arnold van Rooijen, Ryan Lowe, Marco Ghisalberti, Mario Conde-Frias, and Liming Tan. Predicting current-induced drag in emergent and submerged aquatic vegetation canopies. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Swain:2018:RCS**

- [1380] Timothy D. Swain, Simon Lax, Natalie Lake, Hannah Grooms, Vadim Backman, and Luisa A. Marcelino. Relating coral skeletal structures at different length scales to growth, light availability to symbiodinium, and thermal bleaching. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Pitt:2018:CAS**

- [1381] Kylie A. Pitt, Cathy H. Lucas, Robert H. Condon, Carlos M. Duarte, and Ben Stewart-Koster. Claims that anthropogenic stressors facilitate jellyfish blooms have been amplified beyond the available evidence: a

systematic review. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Eguchi:2018:LTC**

- [1382] Tomoharu Eguchi, Sam McClatchie, Cara Wilson, Scott R. Benson, Robin A. LeRoux, and Jeffrey A. Seminoff. Loggerhead turtles (*Caretta caretta*) in the California Current: Abundance, distribution, and anomalous warming of the North Pacific. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Falkenberg:2018:ARL**

- [1383] Laura J. Falkenberg, Sam Dupont, and Richard G. J. Bellerby. Approaches to reconsider literature on physiological effects of environmental change: Examples from ocean acidification research. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**García-Mendoza:2018:MMC**

- [1384] Ernesto García-Mendoza, Jorge Cáceres-Martínez, David Rivas, Michelle Fimbres-Martínez, Yaireb Sánchez-Bravo, Rebeca Vásquez-Yeomans, and Jennifer Medina-Elizalde. Mass mortality of cultivated northern bluefin tuna *Thunnus thynnus orientalis* associated with *Chattonella* species in Baja California, Mexico. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Huveneers:2018:FRD**

- [1385] Charlie Huveneers, Kirin Apps, Edgar E. Becerril-García, Barry Bruce, Paul A. Butcher, Aaron B. Carlisle, Taylor K. Chapple, Heather M. Christiansen, Jeremy Cliff, Tobey H. Curtis, Toby S. Daly-Engel, Heidi Dewar, Matt L. Dicken, Michael L. Domeier, Clinton A. J. Duffy, Richard Ford, Malcolm P. Francis, Georgia C. A. French, Felipe Galván-Magaña, Emiliano García-Rodríguez, Enrico Gennari, Brittany Graham, Barry Hayden, Edgar Mauricio Hoyos-Padilla, Nigel E. Hussey, Oliver J. D. Jewell, Salvador J. Jorgensen, Alison A. Kock, Christopher G. Lowe, Kady Lyons, Lauren Meyer, Gregg Oelofse, Erick C. Oñate-González, Herman Oosthuizen, John B. O'Sullivan, Kristopher Ramm, Gregory Skomal, Sean Sloan, Malcolm J. Smale, Oscar Sosa-Nishizaki, Emilio Sperone, Elena Tamburin, Alison V. Towner, Michelle A. Wcisel, Kevin C. Weng, and Jonathan M. Werry. Future research directions on the “Elusive” white shark. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Drozdowska:2018:SDF**

- [1386] Violetta Drozdowska, Piotr Kowalczyk, Marta Konik, and Lidia Dzierzbicka-Głowacka. Study on different fractions of organic molecules

in the Baltic Sea surface microlayer by spectrophoto- and spectrofluorimetric methods. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Ribas-Ribas:2018:ASC**

- [1387] Mariana Ribas-Ribas, Frank Helleis, Janina Rahlff, and Oliver Wurl. Air-sea CO<sub>2</sub>-exchange in a large annular wind-wave tank and the effects of surfactants. *Frontiers in Marine Science*, 5, November 2018. ISSN 2296-7745.

**Jarrold:2018:ETD**

- [1388] Michael D. Jarrold and Philip L. Munday. Elevated temperature does not substantially modify the interactive effects between elevated CO<sub>2</sub> and diel CO<sub>2</sub> cycles on the survival, growth and behavior of a coral reef fish. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Hermosilla:2018:GPB**

- [1389] Carlos Hermosilla, Jörg Hirtzmann, Liliana M. R. Silva, Sandra Scheufen, Ellen Prenger-Berninghoff, Christa Ewers, Vreni Häussermann, Günter Försterra, Sven Poppert, and Anja Taubert. Gastrointestinal parasites and bacteria in free-living South American sea lions (*Otaria flavescens*) in Chilean Comau Fjord and new host record of a *Diphyllobothrium scoticum*-like cestode. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Morato:2018:MCA**

- [1390] Telmo Morato, Christopher K. Pham, Carlos Pinto, Neil Golding, Jeff A. Ardron, Pablo Durán Muñoz, and Francis Neat. A multi criteria assessment method for identifying vulnerable marine ecosystems in the North-East Atlantic. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**French:2018:CFR**

- [1391] Emily French and Kenneth Moore. Canopy functions of *R. maritima* and *Z. marina* in the Chesapeake Bay. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Bulmer:2018:ETN**

- [1392] Richard Hugh Bulmer, Michael Townsend, Tarn Drylie, and Andrew Martin Lohrer. Elevated turbidity and the nutrient removal capacity of seagrass. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Bif:2018:CFD**

- [1393] Mariana B. Bif, Dennis A. Hansell, and Kimberly J. Pependorf. Controls on the fate of dissolved organic carbon under contrasting upwelling conditions. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Roncon:2018:VBI**

- [1394] Giulia Roncon, Sophie Bestley, Clive R. McMahon, Barbara Wienecke, and Mark A. Hindell. View from below: Inferring behavior and physiology of Southern Ocean marine predators from dive telemetry. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**vanderHoop:2018:SEE**

- [1395] Julie M. van der Hoop, Andreas Fahlman, K. Alex Shorter, Joaquin Gabaldon, Julie Rocho-Levine, Victor Petrov, and Michael J. Moore. Swimming energy economy in bottlenose dolphins under variable drag loading. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Nietzer:2018:CLE**

- [1396] Samuel Nietzer, Mareen Moeller, Makoto Kitamura, and Peter J. Schupp. Coral larvae every day: *Leptastrea purpurea*, a brooding species that could accelerate coral research. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Cuvelier:2018:PMR**

- [1397] Daphne Cuvelier, Sabine Gollner, Daniel O. B. Jones, Stefanie Kaiser, Pedro Martínez Arbizu, Lena Menzel, Nélia C. Mestre, Telmo Morato, Christopher Pham, Florence Pradillon, Autun Purser, Uwe Raschka, Jozée Sarrazin, Erik Simon-Lledó, Ian M. Stewart, Heiko Stuckas, Andrew K. Sweetman, and Ana Colaço. Potential mitigation and restoration actions in ecosystems impacted by seabed mining. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Dorner:2018:CSM**

- [1398] Hendrik Dörner and John Casey. Commentary: The saga of the management of fisheries in the Adriatic Sea: History, flaws, difficulties, and successes toward the application of the Common Fisheries Policy in the Mediterranean. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745. See [913] and response [1762].

**Venkatesan:2018:BPO**

- [1399] Ramasamy Venkatesan, Krishnamoorthy Ramesh, Anand Kishor, Narayanaswamy Vedachalam, and Malayath A. Atmanand. Best prac-



tices for the ocean moored observatories. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Duarte:2018:IOA**

- [1400] Carlos M. Duarte and Dorte Krause-Jensen. Intervention options to accelerate ecosystem recovery from coastal eutrophication. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Ryabinin:2019:DOS**

- [1401] Vladimir Ryabinin, Julian Barbière, Peter Haugan, Gunnar Kullenberg, Neville Smith, Craig McLean, Ariel Troisi, Albert Fischer, Salvatore Aricò, Thorkild Aarup, Peter Pissierssens, Martin Visbeck, Henrik Oksfeldt Enevoldsen, and Julie Rigaud. The UN decade of ocean science for sustainable development. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Thomson:2018:SOM**

- [1402] Paul G. Thomson, Ashley M. Fowler, Andrew R. Davis, Charitha B. Pattiaratchi, and David J. Booth. Some old movies become classics — a case study determining the scientific value of ROV inspection footage on a platform on Australia’s North West Shelf. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Powilleit:2018:CHT**

- [1403] Martin Powilleit and Stefan Forster. Continuous and high transport of particles and solutes by benthos in coastal eutrophic sediments of the Pomeranian Bay. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Farfan:2018:MDS**

- [1404] Gabriela A. Farfan, Erik E. Cordes, Rhian G. Waller, Thomas M. DeCarlo, and Colleen M. Hansel. Mineralogy of deep-sea coral aragonites as a function of aragonite saturation state. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Kindeberg:2018:SSC**

- [1405] Theodor Kindeberg, Sarah B. Ørberg, Maria Emilia Röhr, Marianne Holmer, and Dorte Krause-Jensen. Sediment stocks of carbon, nitrogen, and phosphorus in Danish eelgrass meadows. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Androuin:2018:SMS**

- [1406] Thibault Androuin, Lubos Polerecky, Priscilla Decottignies, Stanislas F. Dubois, Christine Dupuy, Cédric Hubas, Bruno Jesus, Erwan Le Gall,

Martin P. Marzloff, and Antoine Carlier. Subtidal microphytobenthos: a secret garden stimulated by the engineer species *Crepidula fornicata*. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**White:2018:FFV**

- [1407] Rachel White, Amy Rose Coghlan, Angie Coulter, Maria Lourdes D. Palomares, Daniel Pauly, and Dirk Zeller. Future of fishing for a vulnerable atoll: Trends in catch and catch-per-unit-effort in Tokelau's domestic marine fisheries 1950–2016. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Washburn:2018:VNW**

- [1408] Travis W. Washburn, David W. Yoskowitz, and Paul A. Montagna. Valuing nature waste removal in the offshore environment following the *Deep-water Horizon* oil spill. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Jin:2018:EBH**

- [1409] Di Jin, Chris Watson, Hauke Kite-Powell, and Paul Kirshen. Evaluating Boston Harbor cleanup: an ecosystem valuation approach. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Carlson:2018:SOD**

- [1410] Daniel F. Carlson, Tamay Özgökmen, Guillaume Novelli, Cedric Guigand, Henry Chang, Baylor Fox-Kemper, Jean Mensa, Sanchit Mehta, Erick Fredj, Helga Huntley, A. D. Kirwan, Maristella Berta, Mike Rebozo, Milan Curcic, Ed Ryan, Björn Lund, Brian Haus, Jeroen Molemaker, Cameron Hunt, Shuyi Chen, Laura Bracken, and Jochen Horstmann. Surface ocean dispersion observations from the ship-tethered aerostat remote sensing system. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Thompson:2018:SMA**

- [1411] Kirsten F. Thompson, Kathryn A. Miller, Duncan Currie, Paul Johnston, and David Santillo. Seabed mining and approaches to governance of the deep seabed. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Kadiri:2018:ASP**

- [1412] Medina Omo Kadiri and Solomon Isagba. Amnesic shellfish poisoning (ASP) and paralytic shellfish poisoning (PSP) in Nigerian Coast, Gulf of Guinea. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Limburg:2018:EMH**

- [1413] Karin E. Limburg and Michele Casini. Effect of marine hypoxia on Baltic Sea cod *Gadus morhua*: Evidence from otolith chemical proxies. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Andrzejaczek:2018:FIF**

- [1414] Samantha Andrzejaczek, Adrian C. Gleiss, Charitha B. Pattiaratchi, and Mark G. Meekan. First insights into the fine-scale movements of the sandbar shark, *Carcharhinus plumbeus*. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Almahasheer:2018:RHM**

- [1415] Hanan Almahasheer, Oscar Serrano, Carlos M. Duarte, and Xabier Irigoien. Remobilization of heavy metals by mangrove leaves. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Rudd:2018:OEB**

- [1416] Murray A. Rudd, Mark Dickey-Collas, Johanna Ferretti, Ellen Johannesen, Nicol M. Macdonald, Richard McLaughlin, Margaret Rae, Torsten Thiele, and Jason S. Link. Ocean ecosystem-based management mandates and implementation in the North Atlantic. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Bednarsek:2018:NNR**

- [1417] Nina Bednaršek, Richard A. Feely, Marcus W. Beck, Olivier Glippa, Mirella Kanerva, and Jonna Engström-Öst. El Niño-related thermal stress coupled with upwelling-related ocean acidification negatively impacts cellular to population-level responses in pteropods along the California Current System with implications for increased bioenergetic costs. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Irola-Sansores:2018:PDB**

- [1418] Elda Damaris Irola-Sansores, Benjamín Delgado-Pech, Ernesto García-Mendoza, Erick J. Núñez-Vázquez, Aramis Olivos-Ortiz, and Antonio Almazán-Becerril. Population dynamics of benthic-epiphytic dinoflagellates on two macroalgae from coral reef systems of the Northern Mexican Caribbean. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Thompson:2018:DPD**

- [1419] Anne W. Thompson, Ger van den Engh, Nathan A. Ahlgren, Kathleen Kouba, Samantha Ward, Samuel T. Wilson, and David M. Karl. Dynamics of *Prochlorococcus* diversity and photoacclimation during short-term

shifts in water column stratification at Station ALOHA. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Gogina:2018:SFB**

- [1420] Mayya Gogina, Marko Lipka, Jana Woelfel, Bo Liu, Claudia Morys, Michael E. Böttcher, and Michael L. Zettler. In search of a field-based relationship between benthic macrofauna and biogeochemistry in a modern brackish coastal sea. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Johnson:2018:EMP**

- [1421] Matthew D. Johnson and Holly V. Moeller. Editorial: Mixotrophy in protists: From model systems to mathematical models. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Paredes-Banda:2018:ATD**

- [1422] Patricia Paredes-Banda, Ernesto García-Mendoza, Elizabeth Ponce-Rivas, Juan Blanco, Antonio Almazán-Becerril, Clara Galindo-Sánchez, and Allan Cembella. Association of the toxigenic dinoflagellate *Alexandrium ostenfeldii* with spirolide accumulation in cultured mussels (*Mytilus galloprovincialis*) from Northwest Mexico. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Amanajas:2018:GDW**

- [1423] Renan D. Amanajás, Jhonatan M. Silva, and Adalberto L. Val. Growing in the dark warmth: The case of Amazonian fish *Colossoma macropomum*. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Windle:2018:RVE**

- [1424] Anna E. Windle, D. Shane Hooley, and David W. Johnston. Robotic vehicles enable high-resolution light pollution sampling of sea turtle nesting beaches. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Klein:2019:NTT**

- [1425] Shannon G. Klein, Kylie A. Pitt, Cathy H. Lucas, Shiou-Han Hung, Sebastian Schmidt-Roach, Manuel Aranda, and Carlos M. Duarte. Night-time temperature reprieves enhance the thermal tolerance of a symbiotic cnidarian. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745. See corrigendum [2168].

**Smith:2019:LLU**

- [1426] Leslie M. Smith, Kristen Yarincik, Liana Vaccari, Maxwell B. Kaplan, John A. Barth, Geoffrey S. Cram, Jonathan P. Fram, Michael Harring-

ton, Orest E. Kawka, Deborah S. Kelley, Paul Matthias, Kristopher Newhall, Matthew Palanza, Albert J. Plueddemann, Michael F. Vardaro, Sheri N. White, and Robert Andrew Weller. Lessons learned from the United States Ocean Observatories Initiative. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Ordonez:2019:ECL**

- [1427] Alexandra Ordoñez, Daniel Wangpraseurt, Niclas Heidelberg Lyndby, Michael Kühn, and Guillermo Diaz-Pulido. Elevated CO<sub>2</sub> leads to enhanced photosynthesis but decreased growth in early life stages of reef building coralline algae. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Harvey:2019:EOP**

- [1428] E. Therese Harvey, Jakob Walve, Agneta Andersson, Bengt Karlson, and Susanne Kratzer. The effect of optical properties on secchi depth and implications for eutrophication management. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Kroncke:2018:NOM**

- [1429] Ingrid Kröncke, Lydia R. Becker, Thomas H. Badewien, Alexander Bartholomä, Anne-Christin Schulz, and Oliver Zielinski. Near- and offshore macrofauna communities and their physical environment in a South-Eastern North Sea sandy beach system. *Frontiers in Marine Science*, 5, December 2018. ISSN 2296-7745.

**Gonzalez:2019:ZTT**

- [1430] Carolina E. González, Rubén Escribano, Antonio Bode, and Wolfgang Schneider. Zooplankton taxonomic and trophic community structure across biogeochemical regions in the Eastern South Pacific. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Calisto:2019:AAP**

- [1431] Rita Calisto, Eirik Færøy Sæbø, Julia E. Storesund, Lise Øvreås, Lars Herfindal, and Olga M. Lage. Anticancer activity in planctomycetes. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Cisternas-Novoa:2019:EHC**

- [1432] Carolina Cisternas-Novoa, Cindy Lee, Tiantian Tang, Roman de Jesus, and Anja Engel. Effects of higher CO<sub>2</sub> and temperature on exopolymer particle content and physical properties of marine aggregates. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Veldhuis:2019:PST**

- [1433] Erik R. Veldhuis, Maarten Schrama, Marten Staal, and J. Theo M. Elzenga. Plant stress-tolerance traits predict salt marsh vegetation patterning. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Fredericq:2019:CIR**

- [1434] Suzanne Fredericq, Sherry Kravesky-Self, Thomas Sauvage, Joseph Richards, Ronald Kittle, Natalia Arakaki, Emma Hickerson, and William E. Schmidt. The critical importance of rhodoliths in the life cycle completion of both macro- and microalgae, and as Holobionts for the establishment and maintenance of marine biodiversity. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Garcia-Garcia:2019:OMP**

- [1435] Luz María García-García, Dave Sivyer, Michelle Devlin, Suzanne Painting, Kate Collingridge, and Johan van der Molen. Optimizing monitoring programs: a case study based on the OSPAR eutrophication assessment for UK waters. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Kyryliuk:2019:SDT**

- [1436] Dmytro Kyryliuk and Susanne Kratzer. Summer distribution of total suspended matter across the Baltic Sea. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Cochrane:2019:TEV**

- [1437] K. L. Cochrane, H. Rakotondrazafy, S. Aswani, T. Chaigneau, N. Downey-Breedt, A. Lemahieu, A. Paytan, G. Pecl, E. Plagányi, E. Popova, E. I. van Putten, Warwick H. H. Sauer, V. Byfield, Maria A. Gasalla, Simon J. van Gennip, W. Malherbe, Andriantsilavo Rabary, Ando Rabearisoa, N. Ramarosan, V. Randrianarimanana, L. Scott, and P. M. Tsimanaoraty. Tools to enrich vulnerability assessment and adaptation planning for coastal communities in data-poor regions: Application to a case study in Madagascar. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Agusti:2019:PCP**

- [1438] Susana Agusti, Luis M. Lubián, Enrique Moreno-Ostos, Marta Estrada, and Carlos M. Duarte. Projected changes in photosynthetic picoplankton in a warmer subtropical ocean. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Morley:2019:PWS**

- [1439] Simon A. Morley, David K. A. Barnes, and Michael J. Dunn. Predicting which species succeed in climate-forced polar seas. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Pilcher:2019:MEC**

- [1440] Darren J. Pilcher, Danielle M. Naiman, Jessica N. Cross, Albert J. Hermann, Samantha A. Siedlecki, Georgina A. Gibson, and Jeremy T. Mathis. Modeled effect of coastal biogeochemical processes, climate variability, and ocean acidification on aragonite saturation state in the Bering Sea. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Schellenberg:2019:PHS**

- [1441] Johannes Schellenberg, Jessica Reichert, Martin Hardt, Henrike Schmidtberg, Peter Kämpfer, Stefanie P. Glaeser, Patrick Schubert, and Thomas Wilke. The precursor hypothesis of sponge kleptocnidism: Development of nematocysts in *Haliclona cnidata* sp. nov. (Porifera, Demospongiae, Haplosclerida). *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Davis:2019:FDS**

- [1442] Randall W. Davis, James L. Bodkin, Heather A. Coletti, Daniel H. Monson, Shawn E. Larson, Lilian P. Carswell, and Linda M. Nichol. Future directions in sea otter research and management. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Lopez:2019:TCC**

- [1443] Johann S. Lopez, Lillian Lee, and Katherine R. M. Mackey. The toxicity of copper to *Crocospaera watsonii* and other marine phytoplankton: a systematic review. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Garcia-Lopez:2019:MCC**

- [1444] Eva Garcia-Lopez, Irene Rodriguez-Lorente, Paula Alcazar, and Cristina Cid. Microbial communities in coastal glaciers and tidewater tongues of Svalbard Archipelago, Norway. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Bernal-Sotelo:2019:DCP**

- [1445] Katherine Bernal-Sotelo, Alberto Acosta, and Jorge Cortés. Decadal change in the population of *Dendrogyra cylindrus* (Scleractinia: Meandrinidae) in Old Providence and St. Catalina Islands, Colombian

Caribbean. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Hooker:2019:FDR**

- [1446] Sascha K. Hooker, Natacha Aguilar De Soto, Robin W. Baird, Emma L. Carroll, Diane Claridge, Laura Feyrer, Patrick J. O. Miller, Aubrie Onoufriou, Greg Schorr, Eilidh Siegal, and Hal Whitehead. Future directions in research on beaked whales. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Worsfold:2019:EUO**

- [1447] Paul J. Worsfold, Eric P. Achterberg, Antony J. Birchill, Robert Clough, Ivo Leito, Maeve C. Lohan, Angela Milne, and Simon J. Ussher. Estimating uncertainties in oceanographic trace element measurements. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Briones-Fourzan:2019:CRD**

- [1448] Patricia Briones-Fourzán, Lorenzo Álvarez-Filip, Cecilia Barradas-Ortíz, Piedad S. Morillo-Velarde, Fernando Negrete-Soto, Iris Segura-García, Alberto Sánchez-González, and Enrique Lozano-Álvarez. Coral reef degradation differentially alters feeding ecology of co-occurring congeneric spiny lobsters. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Rillo:2019:SSS**

- [1449] Marina C. Rillo, Michal Kucera, Thomas H. G. Ezard, and C. Giles Miller. Surface sediment samples from early age of seafloor exploration can provide a late 19th Century baseline of the marine environment. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Conrad:2019:DRD**

- [1450] Stephen Conrad, Dylan R. Brown, Paula Gomez Alvarez, Bronte Bates, Nizam Ibrahim, Alex Reid, Luciana Silva Monteiro, Daniela A. Silva, Lea T. Mamo, Jacob R. Bowtell, Huang An Lin, Nathaniel L. Tolentino, and Christian Joshua Sanders. Does regional development influence sedimentary blue carbon stocks? A case study from three Australian estuaries. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Cortes:2019:CNC**

- [1451] Jorge Cortés, Hazel A. Oxenford, Brigitta I. van Tussenbroek, Eric Jordán-Dahlgren, Aldo Cróquer, Carolina Bastidas, and John C. Ogden. The CARICOMP network of Caribbean Marine Laboratories (1985–2007): History, key findings, and lessons learned. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.



**Koweek:2019:CIF**

- [1452] David A. Koweek, Atleigh Forden, Rebecca Albright, Yuichiro Takeshita, David A. Mucciarone, Aaron Ninokawa, and Ken Caldeira. Carbon isotopic fractionation in organic matter production consistent with benthic community composition across a coral reef flat. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Friedland:2019:MES**

- [1453] René Friedland, Gerald Schernewski, Ulf Gräwe, Inga Greipsland, Dalila Palazzo, and Marianna Pastuszek. Managing eutrophication in the Szczecin (Oder) lagoon-development, present state and future perspectives. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Wang:2019:TIM**

- [1454] Fuqiang Wang, Ying Wu, Zuozhi Chen, Guosen Zhang, Jun Zhang, Shan Zheng, and Gerhard Kattner. Trophic interactions of mesopelagic fishes in the South China Sea illustrated by stable isotopes and fatty acids. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Posacka:2019:ECA**

- [1455] Anna M. Posacka, David M. Semeniuk, and Maria T. Maldonado. Effects of copper availability on the physiology of marine heterotrophic bacteria. *Frontiers in Marine Science*, 5, February 2019. ISSN 2296-7745.

**Bergvik:2019:IFF**

- [1456] Maria Bergvik, Lene Stensås, Aleksander Handå, Kjell Inge Reitan, Øivind Strand, and Yngvar Olsen. Incorporation of feed and fecal waste from salmon aquaculture in great scallops (*Pecten maximus*) co-fed by different algal concentrations. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Rice:2019:CAI**

- [1457] Mallory M. Rice, Leïla Ezzat, and Deron E. Burkepille. Corallivory in the Anthropocene: Interactive effects of anthropogenic stressors and corallivory on coral reefs. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Espinoza-Morriberon:2019:OVD**

- [1458] Dante Espinoza-Morriberón, Vincent Echevin, Francois Colas, Jorge Tam, Dimitri Gutierrez, Michelle Graco, Jesús Ledesma, and Carlos Quispe-Ccalluari. Oxygen variability during ENSO in the tropical South Eastern Pacific. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Dee:2019:AVF**

- [1459] Laura E. Dee, Kendra Anne Karr, Celia J. Landesberg, and Daniel J. Thornhill. Assessing vulnerability of fish in the U.S. marine aquarium trade. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**vanHaren:2019:IWO**

- [1460] Hans van Haren, Gerard Duineveld, and Furu Mienis. Internal wave observations off Saba Bank. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Broch:2019:KCP**

- [1461] Ole Jacob Broch, Morten Omholt Alver, Trine Bekkby, Hege Gundersen, Silje Forbord, Aleksander Handå, Jorunn Skjermo, and Kasper Hancke. The kelp cultivation potential in coastal and offshore regions of Norway. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Harcourt:2019:FDE**

- [1462] Rob Harcourt, Julie van der Hoop, Scott Kraus, and Emma L. Carroll. Future directions in *Eubalaena* spp.: Comparative research to inform conservation. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**LeBris:2019:HET**

- [1463] Nadine Le Bris, Mustafa Yücel, Anindita Das, Stefan M. Sievert, PonnaPakkam LokaBharathi, and Peter R. Girguis. Hydrothermal energy transfer and organic carbon production at the deep seafloor. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Paredes:2019:PGS**

- [1464] Javier Paredes, Daniel Varela, Camila Martínez, Andrea Zúñiga, Karen Correa, Adrián Villarroel, and Bianca Olivares. Population genetic structure at the northern edge of the distribution of *Alexandrium catenella* in the Patagonian fjords and its expansion along the open Pacific Ocean coast. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Robinson:2019:MRE**

- [1465] Carol Robinson. Microbial respiration, the engine of ocean deoxygenation. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Wollschlager:2019:SDE**

- [1466] Jochen Wollschläger, Rüdiger Röttgers, Wilhelm Petersen, and Oliver Zielinski. Stick or dye: Evaluating a solid standard calibration approach

for point-source integrating cavity absorption meters (PSICAM). *Frontiers in Marine Science*, 5, February 2019. ISSN 2296-7745.

**Fujii:2019:STD**

- [1467] Toyonobu Fujii, Kenji Kaneko, Hiroki Murata, Chinatsu Yonezawa, Ayu Katayama, Megumi Kuraishi, Yuka Nakamura, Daisuke Takahashi, Yasushi Gomi, Hiroya Abe, and Akihiro Kijima. Spatio-temporal dynamics of benthic macrofaunal communities in relation to the recovery of coastal aquaculture operations following the 2011 Great East Japan Earthquake and Tsunami. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Evans:2019:MCP**

- [1468] Wiley Evans, Katie Pocock, Alex Hare, Carrie Weekes, Burke Hales, Jennifer Jackson, Helen Gurney-Smith, Jeremy T. Mathis, Simone R. Alin, and Richard A. Feely. Marine CO<sub>2</sub> patterns in the Northern Salish Sea. *Frontiers in Marine Science*, 5, January 2019. ISSN 2296-7745.

**Morquecho:2019:PBO**

- [1469] Lourdes Morquecho. *Pyrodinium bahamense* one the most significant harmful dinoflagellate in Mexico. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Murray:2019:PPF**

- [1470] Ciarán J. Murray, Bärbel Müller-Karulis, Jacob Carstensen, Daniel J. Conley, Bo G. Gustafsson, and Jesper H. Andersen. Past, present and future eutrophication status of the Baltic Sea. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Zellmer:2019:POS**

- [1471] Amanda J. Zellmer, Jeremy T. Claisse, Chelsea M. Williams, Stuart Schwab, and Daniel J. Pondella. Predicting optimal sites for ecosystem restoration using stacked-species distribution modeling. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Enriquez:2019:ABD**

- [1472] Alejandra R. Enríquez, Marta Marcos, Albert Falqués, and Dano Roelvink. Assessing beach and dune erosion and vulnerability under sea level rise: a case study in the Mediterranean Sea. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Lewis:2019:RET**

- [1473] Cynthia Lewis, Karen Neely, and Mauricio Rodriguez-Lanetty. Recurring episodes of thermal stress shift the balance from a dominant host-

specialist to a background host-generalist zooxanthella in the threatened pillar coral, *Dendrogyra cylindrus*. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Seraphin:2019:BRE**

- [1474] Kanesa Duncan Seraphin, Jennifer L. East, and Lyndell N. Whitley. Book review: *Exemplary Practices in Marine Science Education*. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Morelan:2019:MVI**

- [1475] Ian A. Morelan, Christopher A. Gaulke, Thomas J. Sharpton, Rebecca Vega Thurber, and Dee R. Denver. Microbiome variation in an intertidal sea anemone across latitudes and symbiotic states. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Follett:2019:CMH**

- [1476] Elizabeth Follett, Cynthia G. Hays, and Heidi Nepf. Canopy-mediated hydrodynamics contributes to greater allelic richness in seeds produced higher in meadows of the coastal eelgrass *Zostera marina*. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Maxwell:2019:EAB**

- [1477] Sara M. Maxwell, Annette C. Broderick, Peter H. Dutton, Sabrina Fossette-Halot, Mariana M. P. B. Fuentes, and Richard D. Reina. Editorial: Advances in the biology and conservation of marine turtles. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Barragan-Barrera:2019:ENM**

- [1478] Dalia C. Barragán-Barrera, Karina Bohrer do Amaral, Paula Alejandra Chávez-Carreño, Nohelia Farías-Curtidor, Rocío Lancharos-Neva, Natalia Botero-Acosta, Paula Bueno, Ignacio Benites Moreno, Jaime Bolaños-Jiménez, Laurent Bouveret, Delma Nataly Castelblanco-Martínez, Jolanda A. Luksenburg, Julie Mellinger, Roosevelt Mesa-Gutiérrez, Benjamin de Montgolfier, Eric A. Ramos, Vincent Ridoux, and Daniel M. Palacios. Ecological niche modeling of three species of *Stenella* dolphins in the Caribbean Basin, with application to the Seaflower Biosphere Reserve. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Rahlff:2019:OPA**

- [1479] Janina Rahlff, Christian Stolle, Helge-Ansgar Giebel, Mariana Ribas-Ribas, Lars Riis Damgaard, and Oliver Wurl. Oxygen profiles across

the sea-surface microlayer — effects of diffusion and biological activity. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Heupel:2019:RSS**

- [1480] Michelle R. Heupel, Yannis P. Papastamatiou, Mario Espinoza, Madeline E. Green, and Colin A. Simpfendorfer. Reef shark science — key questions and future directions. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Borbor-Cordova:2019:OHA**

- [1481] Mercy J. Borbor-Cordova, Gladys Torres, Gabriel Mantilla-Saltos, Ashley Casierra-Tomala, J. Rafael Bermúdez, Willington Renteria, and Bonny Bayot. Oceanography of harmful algal blooms on the Ecuadorian Coast (1997–2017): Integrating remote sensing and biological data. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Brodersen:2019:OCS**

- [1482] Kasper Elgetti Brodersen, Stacey M. Trevathan-Tackett, Daniel A. Nielsen, Rod M. Connolly, Catherine E. Lovelock, Trisha B. Atwood, and Peter I. Macreadie. Oxygen consumption and sulfate reduction in vegetated coastal habitats: Effects of physical disturbance. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Lessin:2019:TSB**

- [1483] Gennadi Lessin, Jorn Bruggeman, Caroline Louise McNeill, and Stephen Widdicombe. Time scales of benthic macrofaunal response to pelagic production differ between major feeding groups. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Loke:2019:AIE**

- [1484] Lynette H. L. Loke, Eliza C. Heery, Samantha Lai, Tjeerd J. Bouma, and Peter A. Todd. Area-independent effects of water-retaining features on intertidal biodiversity on eco-engineered seawalls in the tropics. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Fox:2019:EMO**

- [1485] Alan D. Fox, David W. Corne, C. Gabriela Mayorga Adame, Jeff A. Polton, Lea-Anne Henry, and J. Murray Roberts. An efficient multi-objective optimization method for use in the design of Marine Protected Area networks. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Flo:2019:LUS**

- [1486] Eva Flo, Esther Garcés, and Jordi Camp. Land uses simplified index (LUSI): Determining land pressures and their link with coastal eutrophication. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Borja:2019:YWC**

- [1487] Angel Borja, Joxe Mikel Garmendia, Iratxe Menchaca, Ainhize Uriarte, and Yolanda Sagarmínaga. Yes, we can! Large-scale integrative assessment of European regional seas, using open access databases. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Filbee-Dexter:2019:EAE**

- [1488] Karen Filbee-Dexter and Anna Smajdor. Ethics of assisted evolution in marine conservation. *Frontiers in Marine Science*, 6, January 2019. ISSN 2296-7745.

**Townsend:2019:EVE**

- [1489] Michael Townsend and Andrew M. Lohrer. Empirical validation of an ecosystem service map developed from ecological principles and biophysical parameters. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Emerson:2019:PID**

- [1490] David Emerson. Biogenic iron dust: a novel approach to ocean iron fertilization as a means of large scale removal of carbon dioxide from the atmosphere. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Bif:2019:MCC**

- [1491] Mariana Bernardi Bif, Márcio Silva de Souza, Luiza Dy Fonseca Costa, and João Sarkis Yunes. Microplankton community composition associated with toxic *Trichodesmium* aggregations in the Southwest Atlantic Ocean. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Mardones:2019:SGR**

- [1492] Jorge I. Mardones, Gonzalo Fuenzalida, Katherine Zenteno, Catharina Alves de Souza, Allisson Astuya, and Juan José Dorantes-Aranda. Salinity-growth response and ichthyotoxic potency of the Chilean *Pseudochattonella verruculosa*. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Jimenez-Quiroz:2019:IBN**

- [1493] María del Carmen Jiménez-Quiroz, Rafael Cervantes-Duarte, René Funes-Rodríguez, Sofía A. Barón-Campis, Felipe de Jesús García-Romero, Sergio Hernández-Trujillo, David U. Hernández-Becerril, Rogelio González-Armas, Raúl Martell-Dubois, Sergio Cerdeira-Estrada, José I. Fernández-Méndez, Luis V. González-Ania, Mario Vásquez-Ortiz, and Francisco J. Barrón-Barraza. Impact of “The Blob” and “El Niño” in the SW Baja California Peninsula: Plankton and environmental variability of Bahía Magdalena. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Perez-Ruzafa:2019:LTD**

- [1494] Angel Pérez-Ruzafa, Sara Campillo, José María Fernández-Palacios, Antonio García-Lacunza, Miriam García-Oliva, Helena Ibañez, Pedro C. Navarro-Martínez, María Pérez-Marcos, Isabel M. Pérez-Ruzafa, Jhoni Ismael Quispe-Becerra, Antonio Sala-Mirete, Olga Sánchez, and Concepción Marcos. Long-term dynamic in nutrients, chlorophyll a, and water quality parameters in a coastal lagoon during a process of eutrophication for decades, a sudden break and a relatively rapid recovery. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Michiels:2019:RPP**

- [1495] Céline C. Michiels, Julia A. Huggins, Karina E. Giesbrecht, Jenifer S. Spence, Rachel L. Simister, Diana E. Varela, Steven J. Hallam, and Sean A. Crowe. Rates and pathways of N<sub>2</sub> production in a persistently anoxic fjord: Saanich Inlet, British Columbia. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Cade-Menun:2019:EPA**

- [1496] Barbara J. Cade-Menun, Solange Duhamel, Rosalind J. Dodd, Christian Lønborg, Chris T. Parsons, and William D. Taylor. Editorial: Phosphorus along the soil-freshwater-ocean continuum. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Singh:2019:OCC**

- [1497] Jyoti Singh and Dolly Wattal Dhar. Overview of carbon capture technology: Microalgal biorefinery concept and state-of-the-art. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Geraldi:2019:CIW**

- [1498] Nathan Robert Geraldi, G. T. Kellison, and Nathan M. Bachelier. Climate indices, water temperature, and fishing predict broad scale variation

in fishes on temperate reefs. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Smith:2019:TPO**

- [1499] Neville Smith, William S. Kessler, Sophie Cravatte, Janet Sprintall, Susan Wijffels, Meghan F. Cronin, Adrienne Sutton, Yolande L. Serra, Boris Dewitte, Peter G. Strutton, Katherine Hill, Alex Sen Gupta, Xiaopei Lin, Ken Takahashi, Dake Chen, and Shelby Brunner. Tropical Pacific observing system. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Buck:2019:ODP**

- [1500] Justin J. H. Buck, Scott J. Bainbridge, Eugene F. Burger, Alexandra C. Kraberg, Matthew Casari, Kenneth S. Casey, Louise Darroch, Joaquin Del Rio, Katja Metfies, Eric Delory, Philipp F. Fischer, Thomas Gardner, Ryan Heffernan, Simon Jirka, Alexandra Kokkinaki, Martina Loebel, Pier Luigi Buttigieg, Jay S. Pearlman, and Ingo Schewe. Ocean data product integration through innovation — the next level of data interoperability. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Popov:2019:CRR**

- [1501] Sarah Popov and Dirk Zeller. Corrigendum: Reconstructed Russian Fisheries Catches in the Barents Sea: 1950–2014. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745. See [1197].

**Sumaila:2019:CSA**

- [1502] U. Rashid Sumaila. A carding system as an approach to increasing the economic risk of engaging in IUU fishing? *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Grand:2019:DAO**

- [1503] Maxime M. Grand, Agathe Laes-Huon, Susanne Fietz, Joseph A. Resing, Hajime Obata, George W. Luther, Alessandro Tagliabue, Eric P. Achterberg, Rob Middag, Antonio Tovar-Sánchez, and Andrew R. Bowie. Developing autonomous observing systems for micronutrient trace metals. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Goergen:2019:ICT**

- [1504] Elizabeth A. Goergen, Alison L. Moulding, Brian K. Walker, and David S. Gilliam. Identifying causes of temporal changes in *Acropora cervicornis* populations and the potential for recovery. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.



**Holland:2019:PFT**

- [1505] Kim N. Holland, James M. Anderson, Daniel M. Coffey, Bonnie J. Holmes, Carl G. Meyer, and Mark A. Royer. A perspective on future tiger shark research. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Lizcano-Sandoval:2019:CCA**

- [1506] Luis D. Lizcano-Sandoval, Ángela Marulanda-Gómez, Mateo López-Victoria, and Alberto Rodríguez-Ramírez. Climate change and Atlantic multidecadal oscillation as drivers of recent declines in coral growth rates in the Southwestern Caribbean. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Fontoura:2019:HFU**

- [1507] Nelson Ferreira Fontoura, Uwe Horst Schulz, Thaís Paz Alves, Thiago Cesar Lima Silveira, Joana Jordão Pereira, and Débora Alessandra Antonetti. How far upstream: a review of estuary-fresh water fish movements in a large neotropical basin. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Weithoff:2019:MAT**

- [1508] Guntram Weithoff and Beatrix E. Beisner. Measures and approaches in trait-based phytoplankton community ecology — from freshwater to marine ecosystems. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Song:2019:RAS**

- [1509] Xiaorui Song, Zhaoqun Liu, Lingling Wang, and Linsheng Song. Recent advances of shell matrix proteins and cellular orchestration in marine molluscan shell biomineralization. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Band-Schmidt:2019:PTP**

- [1510] Christine J. Band-Schmidt, Lorena M. Durán-Riveroll, José J. Bustillos-Guzmán, Ignacio Leyva-Valencia, David J. López-Cortés, Erick J. Núñez-Vázquez, Francisco E. Hernández-Sandoval, and Dulce V. Ramírez-Rodríguez. Paralytic toxin producing dinoflagellates in Latin America: Ecology and physiology. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Seabrook:2019:FFU**

- [1511] Sarah Seabrook, Fabio C. De Leo, and Andrew R. Thurber. Flipping for food: The use of a methane seep by tanner crabs (*Chionoecetes tanneri*). *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Ferreira:2019:DED**

- [1512] A. Ferreira, P. Garrido-Amador, and Ana C. Brito. Disentangling environmental drivers of phytoplankton biomass off Western Iberia. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Bohorquez:2019:FDG**

- [1513] John J. Bohorquez, Anthony Dvarskas, and Ellen K. Pikitch. Filling the data gap — a pressing need for advancing MPA sustainable finance. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Meier:2019:AUS**

- [1514] H. E. Markus Meier, Moa Edman, Kari Eilola, Manja Placke, Thomas Neumann, Helén C. Andersson, Sandra-Esther Brunnabend, Christian Dieterich, Claudia Frauen, René Friedland, Matthias Gröger, Bo G. Gustafsson, Erik Gustafsson, Alexey Isaev, Madline Kniebusch, Ivan Kuznetsov, Bärbel Müller-Karulis, Michael Naumann, Anders Omstedt, Vladimir Ryabchenko, Sofia Saraiva, and Oleg P. Savchuk. Assessment of uncertainties in scenario simulations of biogeochemical cycles in the Baltic Sea. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Goes:2019:GCB**

- [1515] Enatielly R. Goes, Craig J. Brown, and Tereza C. Araújo. Geomorphological classification of the benthic structures on a tropical continental shelf. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Mugge:2019:DSB**

- [1516] Rachel L. Mugge, Melissa L. Brock, Jennifer L. Salerno, Melanie Damour, Robert A. Church, Jason S. Lee, and Leila J. Hamdan. Deep-sea biofilms, historic shipwreck preservation and the *Deepwater Horizon* spill. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Muller:2019:GFC**

- [1517] Marius N. Müller. On the genesis and function of coccolithophore calcification. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Chauvet:2019:IVP**

- [1518] Pauline Chauvet, Anna Metaxas, and Marjolaine Matabos. Interannual variation in the population dynamics of juveniles of the deep-sea crab

*Chionoecetes tanneri*. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**vanWirdum:2019:MLH**

- [1519] Falkje van Wirdum, Elinor Andrén, Denise Wienholz, Ulrich Kotthoff, Matthias Moros, Anne-Sophie Fanget, Marit-Solveig Seidenkrantz, and Thomas Andrén. Middle to Late Holocene variations in salinity and primary productivity in the Central Baltic Sea: a multiproxy study from the Landsort Deep. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Paulo:2019:OCS**

- [1520] Diogo Paulo, Alexandra H. Cunha, Joana Boavida, Ester A. Serrão, Emanuel J. Gonçalves, and Mark Fonseca. Open coast seagrass restoration. Can we do it? Large scale seagrass transplants. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Skubel:2019:IRV**

- [1521] Rachel A. Skubel, Meryl Shriver-Rice, and Gina M. Maranto. Introducing relational values as a tool for shark conservation, science, and management. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Stoicescu:2019:AES**

- [1522] Stella-Theresa Stoicescu, Urmas Lips, and Taavi Liblik. Assessment of eutrophication status based on sub-surface oxygen conditions in the Gulf of Finland (Baltic Sea). *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745. See corrigendum [1699].

**Heimbach:2019:PIA**

- [1523] Patrick Heimbach, Ichiro Fukumori, Christopher N. Hill, Rui M. Ponte, Detlef Stammer, Carl Wunsch, Jean-Michel Campin, Bruce Cornuelle, Ian Fenty, Gaël Forget, Armin Köhl, Matthew Mazloff, Dimitris Menemenlis, An T. Nguyen, Christopher Piecuch, David Trossman, Ariane Verdy, Ou Wang, and Hong Zhang. Putting it all together: Adding value to the global ocean and climate observing systems with complete self-consistent ocean state and parameter estimates. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Heidemann:2019:MHW**

- [1524] Hanna Heidemann and Joachim Ribbe. Marine heat waves and the influence of El Niño off Southeast Queensland, Australia. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Moriceau:2019:EBG**

- [1525] Brivaëla Moriceau, Marion Gehlen, Paul Tréguer, Stephen Baines, Jacques Livage, and Luc André. Editorial: Biogeochemistry and genomics of silicification and silicifiers. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Meyerjurgens:2019:SAC**

- [1526] Jens Meyerjürgens, Thomas H. Badewien, Shungudzemwoyo P. Garaba, Jörg-Olaf Wolff, and Oliver Zielinski. A state-of-the-art compact surface drifter reveals pathways of floating marine litter in the German Bight. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**vanNiekerk:2019:CMF**

- [1527] Karen van Niekerk and Andrew Ndhlovu. Commentary: Multicellular features of phytoplankton. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745. See [1075].

**Kopke:2019:SIT**

- [1528] Kathrin Kopke, Jeffrey Black, and Amy Dozier. Stepping out of the Ivory Tower for ocean literacy. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Alguero-Muniz:2019:AIE**

- [1529] María Alguero-Muñiz, Henriette G. Horn, Santiago Alvarez-Fernandez, Carsten Spisla, Nicole Aberle, Lennart T. Bach, Wanchun Guan, Eric P. Achterberg, Ulf Riebesell, and Maarten Boersma. Analyzing the impacts of elevated-CO<sub>2</sub> levels on the development of a subtropical zooplankton community during oligotrophic conditions and simulated upwelling. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Hoshijima:2019:VSC**

- [1530] Umihiko Hoshijima and Gretchen E. Hofmann. Variability of seawater chemistry in a kelp forest environment is linked to in situ transgenerational effects in the purple sea urchin, *Strongylocentrotus purpuratus*. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Clark:2019:LEB**

- [1531] Malcolm R. Clark, David A. Bowden, Ashley A. Rowden, and Rob Stewart. Little evidence of benthic community resilience to bottom trawling on seamounts after 15 years. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**McGovern:2019:IIS**

- [1532] Joseph V. McGovern, Stephen Nash, and Michael Hartnett. Interannual improvement in sea lettuce blooms in an agricultural catchment. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Fox-Kemper:2019:CPO**

- [1533] Baylor Fox-Kemper, Alistair Adcroft, Claus W. Böning, Eric P. Chassignet, Enrique Curchitser, Gokhan Danabasoglu, Carsten Eden, Matthew H. England, Rüdiger Gerdes, Richard J. Greatbatch, Stephen M. Griffies, Robert W. Hallberg, Emmanuel Hanert, Patrick Heimbach, Helene T. Hewitt, Christopher N. Hill, Yoshiki Komuro, Sonya Legg, Julien Le Sommer, Simona Masina, Simon J. Marsland, Stephen G. Penny, Fangli Qiao, Todd D. Ringler, Anne Marie Treguier, Hiroyuki Tsujino, Petteri Uotila, and Stephen G. Yeager. Challenges and prospects in ocean circulation models. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Hildebrand:2019:ASD**

- [1534] John A. Hildebrand, Kaitlin E. Frasier, Simone Baumann-Pickering, Sean M. Wiggins, Karlina P. Merkens, Lance P. Garrison, Melissa S. Soldevilla, and Mark A. McDonald. Assessing seasonality and density from passive acoustic monitoring of signals presumed to be from pygmy and dwarf sperm whales in the Gulf of Mexico. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Cerchio:2019:GDO**

- [1535] Salvatore Cerchio, Tadasu K. Yamada, and Robert L. Brownell. Global distribution of Omura's whales (*Balaenoptera omurai*) and assessment of range-wide threats. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Archer:2019:FDB**

- [1536] Stephen D. Archer, Kevin M. Posman, Janice DeStefano, Amelia O. Harrison, Albertha Ladina, Elizabeth A. Cheff, and Daniel P. Witt. Fluorescent detection of bromoperoxidase activity in microalgae and planktonic microbial communities using aminophenyl fluorescein. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Johnson:2019:RHR**

- [1537] David E. Johnson, Christopher Barrio Froján, Francis Neat, Dick Van Oevelen, David Stirling, Matthew J. Gubbins, and J. Murray Roberts.

Rockall and Hatton: Resolving a super wicked marine governance problem in the High Seas of the Northeast Atlantic Ocean. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**MacDonald:2019:TSS**

- [1538] Alan MacDonald, Michael R. Heath, Simon P. R. Greenstreet, and Douglas C. Speirs. Timing of sandeel spawning and hatching off the East Coast of Scotland. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Waltham:2019:LFW**

- [1539] Nathan J. Waltham, Damien Burrows, Carla Wegscheidl, Christina Buelow, Mike Ronan, Niall Connolly, Paul Groves, Donna Marie-Audas, Colin Creighton, and Marcus Sheaves. Lost floodplain wetland environments and efforts to restore connectivity, habitat, and water quality settings on the Great Barrier Reef. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Christie:2019:SBS**

- [1540] Hartvig Christie, Guri S. Andersen, Trine Bekkby, Camilla W. Fagerli, Janne K. Gitmark, Hege Gundersen, and Eli Rinde. Shifts between sugar kelp and turf algae in Norway: Regime shifts or fluctuations between different opportunistic seaweed species? *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Sanchez:2019:SDC**

- [1541] Juan Armando Sánchez, Matías Gómez-Corrales, Lina Gutierrez-Cala, Diana Carolina Vergara, Paula Roa, Fanny L. González-Zapata, Mariana Gnecco, Nicole Puerto, Lorena Neira, and Adriana Sarmiento. Steady decline of corals and other benthic organisms in the SeaFlower Biosphere Reserve (Southwestern Caribbean). *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Trowbridge:2019:OOI**

- [1542] John Trowbridge, Robert Weller, Deborah Kelley, Edward Dever, Albert Plueddemann, John A. Barth, and Orest Kawka. The Ocean Observatories Initiative. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Bach:2019:EEC**

- [1543] Lennart T. Bach, Nauzet Hernández-Hernández, Jan Taucher, Carsten Spisla, Claudia Sforza, Ulf Riebesell, and Javier Arístegui. Effects of elevated CO<sub>2</sub> on a natural diatom community in the subtropical NE Atlantic. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Wawrzyniak-Wydrowska:2019:TNI**

- [1544] Brygida Wawrzyniak-Wydrowska, Teresa Radziejewska, Anna Skrzypacz, and Adam Woźniczka. Two non-indigenous dreissenids (*Dreissena polymorpha* and *D. rostriformis bugensis*) in a Southern Baltic coastal lagoon: Variability in populations of the “Old” and a “New” immigrant. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Idarraga-Garcia:2019:UUM**

- [1545] Javier Idárraga-García and Hermann León. Unraveling the underwater morphological features of Roncador Bank, Archipelago of San Andres, Providencia and Santa Catalina (Colombian Caribbean). *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Frawley:2019:HPS**

- [1546] Timothy H. Frawley, Larry B. Crowder, and Kenneth Broad. Heterogeneous perceptions of social-ecological change among small-scale fishermen in the Central Gulf of California: Implications for adaptive response. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Foo:2019:SCR**

- [1547] Shawna A. Foo and Gregory P. Asner. Scaling up coral reef restoration using remote sensing technology. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**LaBeur:2019:BAM**

- [1548] Laura La Beur, Lea-Anne Henry, Georgios Kazanidis, Sebastian Hennige, Alison McDonald, Michael P. Shaver, and J. Murray Roberts. Baseline assessment of marine litter and microplastic ingestion by cold-water coral reef benthos at the East Mingulay Marine Protected Area (Sea of the Hebrides, Western Scotland). *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Tamega:2019:CGP**

- [1549] Frederico T. S. Tamega and Marcia A. O. Figueiredo. Colonization, growth and productivity of crustose coralline algae in sunlit reefs in the Atlantic southernmost coral reef. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Muller:2019:IDK**

- [1550] Marius N. Müller, Juan José Dorantes-Aranda, Andreas Seger, Marina T. Botana, Frederico P. Brandini, and Gustaaf M. Hallegraeff. Ichthyotoxicity of the dinoflagellate *Karlodinium veneficum* in response to changes

in seawater pH. *Frontiers in Marine Science*, 6, February 2019. ISSN 2296-7745.

**Gasparin:2019:RIS**

- [1551] Florent Gasparin, Stephanie Guinehut, Chongyuan Mao, Isabelle Mirouze, Elisabeth Rémy, Robert R. King, Mathieu Hamon, Rebecca Reid, Andrea Storto, Pierre-Yves Le Traon, Matthew J. Martin, and Simona Masina. Requirements for an integrated in situ Atlantic Ocean observing system from coordinated observing system simulation experiments. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Thomsen:2019:LEB**

- [1552] Mads S. Thomsen, Luca Mondardini, Tommaso Alestra, Shawn Gerrity, Leigh Tait, Paul M. South, Stacie A. Lilley, and David R. Schiel. Local extinction of bull kelp (*Durvillaea* spp.) due to a marine heatwave. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Viana:2019:MBC**

- [1553] Tatiana V. Viana, Giovana O. Fistarol, Michelle Amario, Rafael B. Menezes, Beatriz L. R. Carneiro, Daisyane M. Chaves, Paulo I. Hargreaves, Arthur W. Silva-Lima, Jean L. Valentin, Denise R. Tenenbaum, Edilson F. Arruda, Rodolfo Paranhos, and Paulo S. Salomon. Massive blooms of *Chattonella subsalsa* Biecheler (Raphidophyceae) in a hypereutrophic, tropical estuary — Guanabara Bay, Brazil. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Hoegh-Guldberg:2019:CRF**

- [1554] Ove Hoegh-Guldberg, William J. Skirving, Janice M. Lough, Chunying Liu, Michael E. Mann, Simon Donner, C. Mark Eakin, Neal Cantin, Jessica Carilli, Scott Fraser Heron, Sonya Miller, and Sophie Dove. Commentary: Reconstructing four centuries of temperature-induced coral bleaching on the Great Barrier Reef. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745. See [1214].

**Edwards:2019:ARM**

- [1555] Jena E. Edwards, Elizabeth Hiltz, Franziska Broell, Peter G. Bushnell, Steven E. Campana, Jørgen S. Christiansen, Brynn M. Devine, Jeffrey J. Gallant, Kevin J. Hedges, M. Aaron MacNeil, Bailey C. McMeans, Julius Nielsen, Kim Præbel, Gregory B. Skomal, John F. Steffensen, Ryan P. Walter, Yuuki Y. Watanabe, David L. VanderZwaag, and Nigel E. Hussey. Advancing research for the management of long-lived species: a case study on the Greenland shark. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.



**Barr:2019:FCT**

- [1556] Yotam Barr and Avigdor Abelson. Feeding–cleaning trade-off: Manta ray “Decision-Making” as a conservation tool. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Fennel:2019:AMB**

- [1557] Katja Fennel, Marion Gehlen, Pierre Brasseur, Christopher W. Brown, Stefano Ciavatta, Gianpiero Cossarini, Alessandro Crise, Christopher A. Edwards, David Ford, Marjorie A. M. Friedrichs, Marilaure Gregoire, Emlyn Jones, Hae-Cheol Kim, Julien Lamouroux, Raghu Murtugudde, Coralie Perruche, and the GODAE OceanView Marine Ecosystem Analysis and Prediction Task Team. Advancing marine biogeochemical and ecosystem reanalyses and forecasts as tools for monitoring and managing ecosystem health. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Moore:2019:SOO**

- [1558] Andrew M. Moore, Matthew J. Martin, Santha Akella, Hernan G. Arango, Magdalena Balmaseda, Laurent Bertino, Stefano Ciavatta, Bruce Cornuelle, Jim Cummings, Sergey Frolov, Pierre Lermusiaux, Paolo Oddo, Peter R. Oke, Andrea Storto, Anna Teruzzi, Arthur Vidard, and Anthony T. Weaver. Synthesis of ocean observations using data assimilation for operational, real-time and reanalysis systems: a more complete picture of the state of the ocean. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Turk:2019:TES**

- [1559] Daniela Turk, Hongjie Wang, Xiping Hu, Dwight K. Gledhill, Zhaohui Aleck Wang, Liqing Jiang, and Wei-Jun Cai. Time of emergence of surface ocean carbon dioxide trends in the North American coastal margins in support of ocean acidification observing system design. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**vanSpankeren:2019:SMC**

- [1560] Michel van Spankeren, Nathaniel Sibinga, Øyvind Reinshol, Bente E. Torstensen, Øystein Sæle, and Nina S. Liland. A single meal containing phytosterols does not affect the uptake or tissue distribution of cholesterol in zebrafish (*Danio rerio*). *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Barth:2019:BRO**

- [1561] John A. Barth, Susan E. Allen, Edward P. Dever, Richard K. Dewey, Wiley Evans, Richard A. Feely, Jennifer L. Fisher, Jonathan P. Fram, Burke

Hales, Debby Ianson, Jennifer Jackson, Kim Juniper, Orest Kawka, Deborah Kelley, Jody M. Klymak, John Konovsky, P. Michael Kosro, Alexander Kurapov, Emilio Mayorga, Parker MacCready, Jan Newton, R. Ian Perry, Craig M. Risien, Marie Robert, Tetjana Ross, R. Kipp Shearman, Joe Schumacker, Samantha Siedlecki, Vera L. Trainer, Stephanie Waterman, and Christopher E. Wingard. Better regional ocean observing through cross-national cooperation: a case study from the Northeast Pacific. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Rodriguez:2019:FDC**

- [1562] Airam Rodríguez, José M. Arcos, Vincent Bretagnolle, Maria P. Dias, Nick D. Holmes, Maite Louzao, Jennifer Provencher, André F. Raine, Francisco Ramírez, Beneharo Rodríguez, Robert A. Ronconi, Rebecca S. Taylor, Elsa Bonnaud, Stephanie B. Borrelle, Verónica Cortés, Sébastien Descamps, Vicki L. Friesen, Meritxell Genovart, April Hedd, Peter Hodum, Grant R. W. Humphries, Matthieu Le Corre, Camille Lebarbenchon, Rob Martin, Edward F. Melvin, William A. Montevecchi, Patrick Pinet, Ingrid L. Pollet, Raül Ramos, James C. Russell, Peter G. Ryan, Ana Sanz-Aguilar, Dena R. Spatz, Marc Travers, Stephen C. Votier, Ross M. Wanless, Eric Woehler, and André Chiaradia. Future directions in conservation research on petrels and shearwaters. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Wang:2019:INL**

- [1563] Xinxin Wang, Hilde Karoline Fosse, Keshuai Li, Matilde Skogen Chauton, Olav Vadstein, and Kjell Inge Reitan. Influence of nitrogen limitation on lipid accumulation and EPA and DHA content in four marine microalgae for possible use in aquafeed. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Gerdes:2019:DMH**

- [1564] Klaas Gerdes, Pedro Martínez Arbizu, Ulrich Schwarz-Schampera, Martin Schwentner, and Terue C. Kihara. Detailed mapping of hydrothermal vent fauna: a 3D reconstruction approach based on video imagery. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Abe:2019:SAP**

- [1565] Hiroto Abe, Makoto Sampei, Toru Hirawake, Hisatomo Waga, Shigeto Nishino, and Atsushi Ooki. Sediment-associated phytoplankton release from the seafloor in response to wind-induced barotropic currents in the Bering Strait. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Chung:2019:BCR**

- [1566] Anne E. Chung, Lisa M. Wedding, Alison L. Green, Alan M. Friedlander, Grace Goldberg, Amber Meadows, and Mark A. Hixon. Building coral reef resilience through spatial herbivore management. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Brodeur:2019:CBI**

- [1567] Jean R. Brodeur, Baoshan Chen, Jianzhong Su, Yuan-Yuan Xu, Najid Hussain, K. Michael Scaboo, Yafeng Zhang, Jeremy M. Testa, and Wei-Jun Cai. Chesapeake Bay inorganic carbon: Spatial distribution and seasonal variability. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Payne:2019:ESD**

- [1568] Mark R. Payne, Alistair J. Hobday, Brian R. MacKenzie, and Desiree Tommasi. Editorial: Seasonal-to-decadal prediction of marine ecosystems: Opportunities, approaches, and applications. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Macolino:2019:FSE**

- [1569] Assunta C. Macolino, Katherine A. Dafforn, Luke H. Hedge, Alistair G. B. Poore, and Emma L. Johnston. Fine-scale effects of boat moorings on soft sediment communities masked in large-scale comparisons. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Aanesen:2019:TCP**

- [1570] Margrethe Aanesen and Claire W. Armstrong. Trading off co-produced marine ecosystem services: Natural resource industries versus other use and non-use ecosystem service values. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Gonzalez-Pola:2019:IWG**

- [1571] César González-Pola, Paula Fratantoni, Karin M. H. Larsen, N. Penny Holliday, Stephen Dye, Kjell Arne Mork, Agnieszka Beszczynska-Möller, Hedinn Valdimarsson, Alexander Trofimov, Hjalte Parner, Holger Klein, Boris Cisewski, Almudena Fontán, Kieran Lyons, Nicolas Kolodziejczyk, Rocío Graña, Johanna Linders, Tycjan Wodzinowski, Iłona Goszczko, and Caroline Cusack. The ICES Working Group on Oceanic Hydrography: a bridge from in-situ sampling to the remote autonomous observation era. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Seabra:2019:RNW**

- [1572] Rui Seabra, Rubén Varela, António M. Santos, Moncho Gómez-Gesteira, Claudia Meneghesso, David S. Wethey, and Fernando P. Lima. Reduced nearshore warming associated with eastern boundary upwelling systems. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Weller:2019:CSO**

- [1573] Robert A. Weller, D. James Baker, Mary M. Glackin, Susan J. Roberts, Raymond W. Schmitt, Emily S. Twigg, and Daniel J. Vimont. The challenge of sustaining ocean observations. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Marchini:2019:IMC**

- [1574] Agnese Marchini, Federica Ragazzola, Claudio Vasapollo, Alberto Castelli, Gabriella Cerrati, Federica Gazzola, Chulin Jiang, Joachim Langeneck, Maria Chiara Manauzzi, Luigi Musco, Matteo Nannini, Jurgita Zekonyte, and Chiara Lombardi. Intertidal Mediterranean coralline algae habitat is expecting a shift toward a reduced growth and a simplified associated fauna under climate change. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Campbell:2019:ERA**

- [1575] Iona Campbell, Adrian Macleod, Christian Sahlmann, Luiza Neves, Jon Funderud, Margareth Øverland, Adam D. Hughes, and Michele Stanley. The environmental risks associated with the development of seaweed farming in Europe — prioritizing key knowledge gaps. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Roman:2019:MCS**

- [1576] Sara Román, Rüdiger Ortiz-Álvarez, Chiara Romano, Emilio O. Casamayor, and Daniel Martín. Microbial community structure and functionality in the deep sea floor: Evaluating the causes of spatial heterogeneity in a submarine canyon system (NW Mediterranean, Spain). *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**McQuatters-Gollop:2019:SEH**

- [1577] Abigail McQuatters-Gollop, Ian Mitchell, Cristina Vina-Herbon, Jacob Bedford, Prue F. E. Addison, Christopher P. Lynam, P. N. Geetha, Estee Ann Vermeulan, Kaylee Smit, Daniel T. I. Bayley, Elisabeth Morris-Webb, Holly J. Niner, and Saskia A. Otto. From science to evidence — how biodiversity indicators can be used for effective marine conservation policy and management. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Cyr:2019:GCO**

- [1578] Frédéric Cyr, Marc Tedetti, Florent Besson, Nagib Bhairy, and Madeleine Goutx. A glider-compatible optical sensor for the detection of polycyclic aromatic hydrocarbons in the marine environment. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Ostrander:2019:IAD**

- [1579] Chris E. Ostrander, Melissa M. Iwamoto, and Fiona Langenberger. An innovative approach to design and evaluate a regional coastal ocean observing system. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Weber:2019:HDH**

- [1580] Sarah C. Weber, Ajit Subramaniam, Joseph P. Montoya, Hai Doan-Nhu, Lam Nguyen-Ngoc, Joachim W. Dippner, and Maren Voss. Habitat delineation in highly variable marine environments. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**P:2019:FBT**

- [1581] Arturo Acero P., Jose Julian Tavera, Andrea Polanco F., and Nacor Bolaños-Cubillos. Fish biodiversity in three northern islands of the Seaflower Biosphere Reserve (Colombian Caribbean). *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Gooday:2019:CFS**

- [1582] Andrew J. Gooday and Aurélie Goineau. The contribution of fine sieve fractions (63–150  $\mu$  m) to foraminiferal abundance and diversity in an area of the Eastern Pacific Ocean licensed for polymetallic nodule exploration. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Georgieva:2019:DED**

- [1583] Magdalena N. Georgieva, Charles K. Paull, Crispin T. S. Little, Mary McGann, Diana Sahy, Daniel Condon, Lonny Lundsten, Jack Pewsey, David W. Caress, and Robert C. Vrijenhoek. Discovery of an extensive deep-sea fossil serpulid reef associated with a cold seep, Santa Monica Basin, California. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Greenwood:2019:UEA**

- [1584] Naomi Greenwood, Michelle J. Devlin, Mike Best, Lenka Fronkova, Carolyn A. Graves, Alex Milligan, Jon Barry, and Sonja M. van Leeuwen.

Utilizing eutrophication assessment directives from transitional to marine systems in the Thames Estuary and Liverpool Bay, UK. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Fonseca:2019:SVM**

- [1585] Vanessa F. Fonseca, Susana França, Bernardo Duarte, Isabel Caçador, Henrique N. Cabral, Cláudia L. Mieiro, João P. Coelho, Eduarda Pereira, and Patrick Reis-Santos. Spatial variation in mercury bioaccumulation and magnification in a temperate estuarine food web. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Vortmeyer-Kley:2019:efd**

- [1586] Rahel Vortmeyer-Kley, Benedict Lünsmann, Maximilian Berthold, Ulf Gräwe, and Ulrike Feudel. Eddies: Fluid dynamical niches or transporters? — a case study in the Western Baltic Sea. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Hebbeln:2019:FCW**

- [1587] Dierk Hebbeln, Rodrigo da Costa Portilho-Ramos, Claudia Wienberg, and Jürgen Titschack. The fate of cold-water corals in a changing world: a geological perspective. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Perry:2019:CEA**

- [1588] Chris T. Perry, Michael A. Salter, Kyle M. Morgan, and Alastair R. Harborne. Census estimates of algal and epiphytic carbonate production highlight tropical seagrass meadows as sediment production hotspots. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Poquita-Du:2019:STE**

- [1589] Rosa Celia Poquita-Du, Danwei Huang, Loke Ming Chou, Mrinalini, and Peter A. Todd. Short term exposure to heat and sediment triggers changes in coral gene expression and photo-physiological performance. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Behrenfeld:2019:NAA**

- [1590] Michael J. Behrenfeld, Richard H. Moore, Chris A. Hostetler, Jason Graff, Peter Gaube, Lynn M. Russell, Gao Chen, Scott C. Doney, Stephen Giovannoni, Hongyu Liu, Christopher Proctor, Luis M. Bolaños, Nicholas Baetge, Cleo Davie-Martin, Toby K. Westberry, Timothy S. Bates, Thomas G. Bell, Kay D. Bidle, Emmanuel S. Boss, Sarah D. Brooks, Brian Cairns, Craig Carlson, Kimberly Halsey, Elizabeth L. Harvey, Chuanmin Hu, Lee Karp-Boss, Mary Kleb, Susanne Menden-Deuer,

Françoise Morison, Patricia K. Quinn, Amy Jo Scarino, Bruce Anderson, Jacek Chowdhary, Ewan Crosbie, Richard Ferrare, Johnathan W. Hair, Yongxiang Hu, Scott Janz, Jens Redemann, Eric Saltzman, Michael Shook, David A. Siegel, Armin Wisthaler, Melissa Yang Martin, and Luke Ziemba. The North Atlantic Aerosol and Marine Ecosystem Study (NAAMES): Science motive and mission overview. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Boesch:2019:BBA**

- [1591] Donald F. Boesch. Barriers and bridges in abating coastal eutrophication. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Ardhuin:2019:OSS**

- [1592] Fabrice Ardhuin, Justin E. Stopa, Bertrand Chapron, Fabrice Collard, Romain Husson, Robert E. Jensen, Johnny Johannessen, Alexis Mouche, Marcello Passaro, Graham D. Quartly, Val Swail, and Ian Young. Observing sea states. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Nielsen:2019:GSS**

- [1593] Julius Nielsen, Jørgen Schou Christiansen, Peter Grønkjær, Peter Bushnell, John Fleng Steffensen, Helene Overgaard Kiilerich, Kim Præbel, and Rasmus Hedeholm. Greenland shark (*Somniosus microcephalus*) stomach contents and stable isotope values reveal an ontogenetic dietary shift. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Sanchez-Jimenez:2019:CTM**

- [1594] Astrid Sánchez-Jiménez, Marie Fujitani, Douglas MacMillan, Achim Schlüter, and Matthias Wolff. Connecting a trophic model and local ecological knowledge to improve fisheries management: The case of Gulf of Nicoya, Costa Rica. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Herron:2019:TEB**

- [1595] Pilar Herrón, Gustavo A. Castellanos-Galindo, Moritz Stäbler, Juan Manuel Díaz, and Matthias Wolff. Toward ecosystem-based assessment and management of small-scale and multi-gear fisheries: Insights from the tropical Eastern Pacific. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Pauly:2019:EHR**

- [1596] Daniel Pauly and Maria Lourdes D. Palomares. Editorial: Historical reconstructions of marine fisheries catches: Challenges and opportunities. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Egilsdottir:2019:RDD**

- [1597] Hronn Egilsdottir, Niall McGinty, and Gudmundur Gudmundsson. Relating depth and diversity of Bivalvia and Gastropoda in two contrasting sub-Arctic marine regions. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Berkstrom:2019:FLE**

- [1598] Charlotte Berkström, Myron Papadopoulos, Narriman Saleh Jiddawi, and Lina Mtwana Nordlund. Fishers' local ecological knowledge (LEK) on connectivity and seascape management. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Morales:2019:GSP**

- [1599] Sergio E. Morales, Ambarish Biswas, Gerhard J. Herndl, and Federico Baltar. Global structuring of phylogenetic and functional diversity of pelagic fungi by depth and temperature. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Torres-Beltran:2019:SPM**

- [1600] Mónica Torres-Beltrán, Andreas Mueller, Melanie Scofield, Maria G. Pachiadaki, Craig Taylor, Kateryna Tyshchenko, Céline Michiels, Phyllis Lam, Osvaldo Ulloa, Klaus Jürgens, Jung-Ho Hyun, Virginia P. Edgcomb, Sean A. Crowe, and Steven J. Hallam. Sampling and processing methods impact microbial community structure and potential activity in a seasonally anoxic fjord: Saanich Inlet, British Columbia. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Fay:2019:EEE**

- [1601] Gavin Fay, Geret DePiper, Scott Steinback, Robert J. Gamble, and Jason S. Link. Economic and ecosystem effects of fishing on the northeast US shelf. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Sward:2019:SRR**

- [1602] Darryn Sward, Jacquomo Monk, and Neville Barrett. A systematic review of remotely operated vehicle surveys for visually assessing fish assemblages. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Williamson:2019:SRS**

- [1603] Michael J. Williamson, Emma J. Tebbs, Terence P. Dawson, and David M. P. Jacoby. Satellite remote sensing in shark and ray ecology, conservation and management. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.



**VanDam:2019:DSA**

- [1604] Bryce R. Van Dam and Hongjie Wang. Decadal-scale acidification trends in adjacent North Carolina estuaries: Competing role of anthropogenic CO<sub>2</sub> and riverine alkalinity loads. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Mackenzie:2019:RSC**

- [1605] Bev Mackenzie, Louis Celliers, Luiz Paulo de Freitas Assad, Johanna J. Heymans, Nicholas Rome, Julie Thomas, Clarissa Anderson, James Behrens, Mark Calverley, Kruti Desai, Paul M. DiGiacomo, Samy Djavidnia, Francisco dos Santos, Dina Eparkhina, José Ferrari, Caitrióna Hanly, Bob Houtman, Gus Jeans, Luiz Landau, Kate Larkin, David Legler, Pierre-Yves Le Traon, Eric Lindstrom, David Loosley, Glenn Nolan, George Petihakis, Julio Pellegrini, Zoe Roberts, John R. Siddorn, Emily Smail, Isabel Sousa-Pinto, and Eric Terrill. The role of stakeholders in creating societal value from coastal and ocean observations. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Straneo:2019:CSG**

- [1606] Fiammetta Straneo, David A. Sutherland, Leigh Stearns, Ginny Catania, Patrick Heimbach, Twila Moon, Mattias R. Cape, Kristin L. Laidre, Dave Barber, Søren Rysgaard, Ruth Mottram, Steffen Olsen, Mark J. Hopwood, and Lorenz Meire. The case for a sustained Greenland Ice Sheet-Ocean Observing System (GrIOOS). *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Roman:2019:IEH**

- [1607] Michael R. Roman, Stephen B. Brandt, Edward D. Houde, and James J. Pierson. Interactive effects of hypoxia and temperature on coastal pelagic zooplankton and fish. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Le:2019:IFS**

- [1608] Hoang T. M. D. Le, Xinting Shao, Åshild Krogdahl, Trond M. Kortner, Ingrid Lein, Katerina Kousoulaki, Kai K. Lie, and Øystein Sæle. Intestinal function of the stomachless fish, ballan wrasse (*Labrus bergylta*). *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Devlin:2019:STD**

- [1609] Michelle J. Devlin, Mark Breckels, Carolyn A. Graves, Jon Barry, Elisa Capuzzo, Francisco P. Huerta, Fahad Al Ajmi, Mona M. Al-Hussain, William J. F. LeQuesne, and Brett P. Lyons. Seasonal and temporal

drivers influencing phytoplankton community in Kuwait marine waters: Documenting a changing landscape in the Gulf. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Grossowicz:2019:USC**

- [1610] Michal Grossowicz, Guy Sisma-Ventura, and Gideon Gal. Using stable carbon and nitrogen isotopes to investigate the impact of desalination brine discharge on marine food webs. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**O'Callaghan:2019:DIO**

- [1611] Joanne O'Callaghan, Craig Stevens, Moninya Roughan, Chris Cornelisen, Philip Sutton, Sally Garrett, Giacomo Giorli, Robert O. Smith, Kim I. Currie, Sutara H. Suanda, Michael Williams, Melissa Bowen, Denise Fernandez, Ross Vennell, Benjamin R. Knight, Paul Barter, Peter McComb, Megan Oliver, Mary Livingston, Pierre Tellier, Anna Meissner, Mike Brewer, Mark Gall, Scott D. Nodder, Moira Decima, Joao Souza, Aitana Forcén-Vazquez, Sarah Gardiner, Kura Paul-Burke, Stephen Chiswell, Jim Roberts, Barb Hayden, Barry Biggs, and Helen Macdonald. Developing an Integrated Ocean Observing System for New Zealand. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Cape:2019:CDW**

- [1612] Mattias R. Cape, Maria Vernet, Erin C. Pettit, Julia Wellner, Martin Truffer, Garrett Akie, Eugene Domack, Amy Leventer, Craig R. Smith, and Bruce A. Huber. Circumpolar deep water impacts glacial meltwater export and coastal biogeochemical cycling along the West Antarctic Peninsula. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Torres:2019:STP**

- [1613] Gladys Torres, Olga Carnicer, Antonio Canepa, Patricia De La Fuente, Sonia Recalde, Richard Narea, Edwin Pinto, and Mercy J. Borbor-Córdova. Spatio-temporal pattern of dinoflagellates along the tropical Eastern Pacific coast (Ecuador). *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Lombard:2019:KCA**

- [1614] Amanda T. Lombard, Rosemary A. Dorrington, Jodie Romay Reed, Kelly Ortega-Cisneros, Gwenith Susan Penry, Lorien Pichegru, Kaylee Pam Smit, Estee Ann Vermeulen, Minke Witteveen, Kerry J. Sink, Alistair M. McInnes, and Tayla Ginsburg. Key challenges in advancing an ecosystem-based approach to marine spatial planning under economic growth imperatives. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Teles:2019:TGN**

- [1615] Mariana Teles, Felipe E. Reyes-López, Joan C. Balasch, Asta Tvarionaviciute, Laura Guimarães, Miguel Oliveira, and Lluís Tort. Toxicogenomics of gold nanoparticles in a marine fish: Linkage to classical biomarkers. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Duran-Riveroll:2019:RBB**

- [1616] Lorena María Durán-Riveroll, Allan D. Cembella, and Yuri B. Okolodkov. A review on the biodiversity and biogeography of toxigenic benthic marine dinoflagellates of the coasts of Latin America. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Pardo:2019:LCC**

- [1617] Cristina Pardo, Marie-Laure Guillemain, Viviana Peña, Ignacio Bárbara, Myriam Valero, and Rodolfo Barreiro. Local coastal configuration rather than latitudinal gradient shape clonal diversity and genetic structure of *Phymatolithon calcareum* Maerl beds in North European Atlantic. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Johnson:2019:PVE**

- [1618] Maggie D. Johnson, Lucia M. Rodríguez Bravo, Shevonne E. O'Connor, Nicholas F. Varley, and Andrew H. Altieri. pH variability exacerbates effects of ocean acidification on a Caribbean crustose coralline alga. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Tramoy:2019:API**

- [1619] Romain Tramoy, Johnny Gasperi, Rachid Dris, Laurent Colasse, Cédric Fisson, Sarah Sananes, Vincent Rocher, and Bruno Tassin. Assessment of the plastic inputs from the Seine Basin to the sea using statistical and field approaches. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Fabinyi:2019:CCT**

- [1620] Michael Fabinyi, Kate Barclay, and Hampus Eriksson. Corrigendum: Chinese trader perceptions on sourcing and consumption of endangered seafood. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745. See [673].

**Russo:2019:TEY**

- [1621] Tommaso Russo, Paolo Carpentieri, Lorenzo D'Andrea, Paola De Angelis, Fabio Fiorentino, Simone Franceschini, Germana Garofalo, Lucio Labanchi, Antonio Parisi, Michele Scardi, and Stefano Cataudella. Trends

in effort and yield of trawl fisheries: a case study from the Mediterranean Sea. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Waska:2019:STP**

- [1622] Hannelore Waska, J. Greskowiak, J. Ahrens, M. Beck, S. Ahmerkamp, P. Böning, H. J. Brumsack, J. Degenhardt, C. Ehlert, B. Engelen, N. Grünenbaum, M. Holtappels, K. Pahnke, H. K. Marchant, G. Massmann, D. Meier, B. Schnetger, K. Schwalfenberg, H. Simon, V. Vandieken, O. Zielinski, and T. Dittmar. Spatial and temporal patterns of pore water chemistry in the inter-tidal zone of a high energy beach. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Wildermann:2019:HUB**

- [1623] Natalie E. Wildermann, Christopher R. Sasso, Lesley W. Stokes, Derke Snodgrass, and Mariana M. P. B. Fuentes. Habitat use and behavior of multiple species of marine turtles at a foraging area in the Northeastern Gulf of Mexico. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**de la Torre-Castro:2019:IMT**

- [1624] Maricela de la Torre-Castro. Inclusive management through gender consideration in small-scale fisheries: The why and the how. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745.

**Bange:2019:HNO**

- [1625] Hermann W. Bange, Damian L. Arévalo-Martínez, Mercedes de la Paz, Laura Fariás, Jan Kaiser, Annette Kock, Cliff S. Law, Andrew P. Rees, Gregor Rehder, Philippe D. Tortell, Robert C. Upstill-Goddard, and Samuel T. Wilson. A harmonized nitrous oxide (N<sub>2</sub>O) ocean observation network for the 21st Century. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Armstrong:2019:EAR**

- [1626] Claire W. Armstrong, Godwin K. Vondolia, Naomi S. Foley, Lea-Anne Henry, Katherine Needham, and Adriana Ressurreição. Expert assessment of risks posed by climate change and anthropogenic activities to ecosystem services in the deep North Atlantic. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Metaxas:2019:HCH**

- [1627] Anna Metaxas, Myriam Lacharité, and Sarah N. de Mendonça. Hydrodynamic connectivity of habitats of deep-water corals in Corsair Canyon, Northwest Atlantic: a case for cross-boundary conservation. *Frontiers in Marine Science*, 6, March 2019. ISSN 2296-7745. See corrigendum [2018].

**Enochs:2019:SCC**

- [1628] Ian C. Enochs, Derek P. Manzello, Paul R. Jones, S. Jack Stamates, and Thomas P. Carsey. Seasonal carbonate chemistry dynamics on Southeast Florida coral reefs: Localized acidification hotspots from navigational inlets. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Eriksen:2019:ALT**

- [1629] Ruth S. Eriksen, Claire H. Davies, Pru Bonham, Frank E. Coman, Steven Edgar, Felicity R. McEnulty, David McLeod, Margaret J. Miller, Wayne Rochester, Anita Slotwinski, Mark L. Tonks, Julian Uribe-Palomino, and Anthony J. Richardson. Australia's long-term plankton observations: The Integrated Marine Observing System National Reference Station Network. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Moriarty:2019:ASD**

- [1630] Meadhbh Moriarty, Simon P. R. Greenstreet, Jens Rasmussen, and Ingeborg de Boois. Assessing the state of demersal fish to address formal ecosystem based management needs: Making fisheries independent trawl survey data 'fit for purpose'. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Kazanidis:2019:DDS**

- [1631] Georgios Kazanidis, Johanne Vad, Lea-Anne Henry, Francis Neat, Barbara Berx, Konstantinos Georgoulas, and J. Murray Roberts. Distribution of deep-sea sponge aggregations in an area of multisectoral activities and changing oceanic conditions. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Roarty:2019:GHF**

- [1632] Hugh Roarty, Thomas Cook, Lisa Hazard, Doug George, Jack Harlan, Simone Cosoli, Lucy Wyatt, Enrique Alvarez Fanjul, Eric Terrill, Mark Otero, John Largier, Scott Glenn, Naoto Ebuchi, Brian Whitehouse, Kevin Bartlett, Julien Mader, Anna Rubio, Lorenzo Corgnati, Carlo Mantovani, Annalisa Griffa, Emma Reyes, Pablo Lorente, Xavier Flores-Vidal, Kelly Johanna Saavedra-Matta, Peter Rogowski, Siriluk Prukpitikul, Sang-Ho Lee, Jian-Wu Lai, Charles-Antoine Guerin, Jorge Sanchez, Birgit Hansen, and Stephan Grilli. The global high frequency radar network. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Schupp:2019:TCU**

- [1633] Maximilian Felix Schupp, Martina Bocci, Daniel Depellegrin, Andronikos Kafas, Zacharoula Kyriazi, Ivana Lukic, Angela Schultz-Zehden, Gesche

Krause, Vincent Onyango, and Bela H. Buck. Toward a common understanding of ocean multi-use. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Lombard:2019:PAA**

- [1634] Amanda T. Lombard, Natalie C. Ban, Joanna L. Smith, Sarah E. Lester, Kerry J. Sink, Spencer A. Wood, Aerin L. Jacob, Zacharoula Kyriazi, Richard Tingey, and Helena E. Sims. Practical approaches and advances in spatial tools to achieve multi-objective marine spatial planning. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Trimborn:2019:STS**

- [1635] Scarlett Trimborn, Silke Thoms, Kai Bischof, and Sara Beszteri. Susceptibility of two Southern Ocean phytoplankton key species to iron limitation and high light. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**dOvidio:2019:FFS**

- [1636] Francesco d'Ovidio, Ananda Pascual, Jinbo Wang, Andrea M. Doglioli, Zhao Jing, Sebastien Moreau, Gérald Grégori, Sebastiaan Swart, Sabrina Speich, Frédéric Cyr, Benoit Legresy, Yi Chao, Lee Fu, and Rosemary Anne Morrow. Frontiers in fine-scale in situ studies: Opportunities during the SWOT fast sampling phase. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Beckwith:2019:RCE**

- [1637] Sean T. Beckwith, Robert H. Byrne, and Pamela Hallock. Riverine calcium end-members improve coastal saturation state calculations and reveal regionally variable calcification potential. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Guiles:2019:FWI**

- [1638] Martin Guiles, Assaf Azouri, Volker Roeber, Melissa M. Iwamoto, Fiona Langenberger, and Douglas S. Luther. Forecasts of wave-induced coastal hazards in the United States Pacific Islands: Past, present, and the future. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Cohen:2019:SJS**

- [1639] Philippa J. Cohen, Edward H. Allison, Neil L. Andrew, Joshua Cinner, Louisa S. Evans, Michael Fabinyi, Len R. Garces, Stephen J. Hall, Christina C. Hicks, Terry P. Hughes, Svein Jentoft, David J. Mills, Rosalie Masu, Emmanuel K. Mbaru, and Blake D. Ratner. Securing a just space for small-scale fisheries in the blue economy. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Fountain:2019:IPL**

- [1640] Christopher Tyler Fountain, Rhian G. Waller, and Peter J. Auster. Individual and population level variation in the reproductive potential of deep-sea corals from different regions within the Gulf of Maine. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Trotter:2019:FRE**

- [1641] Julie A. Trotter, Charitha Pattiaratchi, Paolo Montagna, Marco Taviani, James Falter, Ron Thresher, Andrew Hosie, David Haig, Federica Foglini, Quan Hua, and Malcolm T. McCulloch. First ROV exploration of the perth canyon: Canyon setting, faunal observations, and anthropogenic impacts. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Anderson:2019:SVD**

- [1642] Sean R. Anderson and Elizabeth L. Harvey. Seasonal variability and drivers of microzooplankton grazing and phytoplankton growth in a subtropical estuary. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Staehr:2019:HME**

- [1643] Peter A. Staehr, Cordula Göke, Andreas M. Holbach, Dorte Krause-Jensen, Karen Timmermann, Sanjina Upadhyay, and Sarah B. Ørberg. Habitat model of eelgrass in Danish coastal waters: Development, validation and management perspectives. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Janzen:2019:IRT**

- [1644] Carol Janzen, Molly McCammon, Thomas Weingartner, Hank Statscewich, Peter Winsor, Seth Danielson, and Rebecca Heim. Innovative real-time observing capabilities for remote coastal regions. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Przeslawski:2019:SFM**

- [1645] Rachel Przeslawski, Scott Foster, Jacquomo Monk, Neville Barrett, Phil Bouchet, Andrew Carroll, Tim Langlois, Vanessa Lucieer, Joel Williams, and Nicholas Bax. A suite of field manuals for marine sampling to monitor Australian waters. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Liu:2019:SCE**

- [1646] Yajie Liu, Jennifer L. Bailey, and Jan G. Davidsen. Social-cultural ecosystem services of sea trout recreational fishing in Norway. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Steiner:2019:ICO**

- [1647] Nadja S. Steiner, William W. L. Cheung, Andres M. Cisneros-Montemayor, Helen Drost, Hakase Hayashida, Carie Hoover, Jen Lam, Tessa Sou, U. Rashid Sumaila, Paul Suprenand, Travis C. Tai, and David L. VanderZwaag. Impacts of the changing ocean–sea ice system on the key forage fish Arctic cod (*Boreogadus saida*) and subsistence fisheries in the Western Canadian Arctic — evaluating linked Climate, Ecosystem and Economic (CEE) models. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Bailey:2019:CMO**

- [1648] Kathleen Bailey, Craig Steinberg, Claire Davies, Guillaume Galibert, Marton Hidas, Margaret A. McManus, Teresa Murphy, Jan Newton, Moninya Roughan, and Amandine Schaeffer. Coastal mooring observing networks and their data products: Recommendations for the next decade. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Hop:2019:PEC**

- [1649] Haakon Hop, Philipp Assmy, Anette Wold, Arild Sundfjord, Malin Daase, Pedro Duarte, Slawomir Kwasniewski, Marta Gluchowska, Józef M. Wiktor, Agnieszka Tatarek, Józef Wiktor, Svein Kristiansen, Agneta Fransson, Melissa Chierici, and Mikko Vihtakari. Pelagic ecosystem characteristics across the Atlantic water boundary current from Rijpfjorden, Svalbard, to the Arctic Ocean during summer (2010–2014). *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Talmy:2019:CCM**

- [1650] David Talmy, Stephen J. Beckett, Adam B. Zhang, Darcy A. A. Taniguchi, Joshua S. Weitz, and Michael J. Follows. Contrasting controls on microzooplankton grazing and viral infection of microbial prey. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Schernewski:2019:ESA**

- [1651] Gerald Schernewski, Philipp Paysen, Esther Robbe, Miguel Inácio, and Johanna Schumacher. Ecosystem service assessments in water policy implementation: an analysis in urban and rural estuaries. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**DeClippele:2019:DER**

- [1652] Laurence Helene De Clippele, Veerle A. I. Huvenne, Tina N. Molodtsova, and J. Murray Roberts. The diversity and ecological role of non-scleractinian corals (Antipatharia and Alcyonacea) on scleractinian cold-



water coral mounds. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Mari:2019:BIB**

- [1653] Xavier Mari, Benjamin Guinot, Chu Van Thuoc, Justine Brune, Jean-Pierre Lefebvre, Pradeep Ram Angia Sriram, Patrick Raimbault, Thorsten Dittmar, and Jutta Niggemann. Biogeochemical impacts of a black carbon wet deposition event in Halong Bay, Vietnam. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Cornwall:2019:IOW**

- [1654] Christopher E. Cornwall, Guillermo Diaz-Pulido, and Steeve Comeau. Impacts of ocean warming on coralline algal calcification: Meta-analysis, knowledge gaps, and key recommendations for future research. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Engel:2019:IAV**

- [1655] Anja Engel, Astrid Bracher, Tilman Dinter, Sonja Endres, Julia Grosse, Katja Metfies, Ilka Peeken, Judith Piontek, Ian Salter, and Eva-Maria Nöthig. Inter-annual variability of organic carbon concentration in the Eastern Fram Strait during summer (2009–2017). *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Borrero-Perez:2019:ESB**

- [1656] Giomar H. Borrero-Pérez, Milena Benavides-Serrato, Néstor H. Campos, Elizabeth Galeano-Galeano, Brigitte Gavio, Jairo Medina, and Alfredo Abril-Howard. Echinoderms of the Seaflower Biosphere Reserve: State of knowledge and new findings. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Griffing:2019:DSS**

- [1657] Denise Griffing, Jeff Christiansen, Joel Hollander, Tim Carpenter, and Shawn Larson. Decrease in sightings of sixgill sharks, *Hexanchus griseus*, in Elliott Bay, Seattle, WA, United States, a comparison between 2003–2005 and 2008–2015. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Wietz:2019:ESE**

- [1658] Matthias Wietz, Stanley C. Lau, and Tilmann Harder. Editorial: Socioecology of microbes in a changing ocean. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Moll:2019:EIF**

- [1659] Dorothee Moll, Paul Kotterba, Klaus Peter Jochum, Lena von Nordheim, and Patrick Polte. Elemental inventory in fish otoliths reflects natal origin of Atlantic herring (*Clupea harengus*) from Baltic Sea juvenile areas. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Fliessbach:2019:STD**

- [1660] Katharina Leonia Fliessbach, Kai Borkenhagen, Nils Guse, Nele Markones, Philipp Schwemmer, and Stefan Garthe. A ship traffic disturbance vulnerability index for Northwest European seabirds as a tool for marine spatial planning. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Chen:2019:CDG**

- [1661] Ge Chen, Junwu Tang, Chaofang Zhao, Songhua Wu, Fangjie Yu, Chunyong Ma, Yongsheng Xu, Weibiao Chen, Yunhua Zhang, Jie Liu, and Lixin Wu. Concept design of the “Guanlan” Science Mission: China’s novel contribution to space oceanography. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Wijayanti:2019:RSC**

- [1662] Diah P. Wijayanti, Elis Indrayanti, Anindya Wirasatriya, Arfiyan Haryanto, Dwi Haryanti, Andrianus Sembiring, Tyas A. Fajrianzah, and Ranjeet Bhagooli. Reproductive seasonality of coral assemblages in the Karimunjawa Archipelago, Indonesia. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Lombard:2019:GCQ**

- [1663] Fabien Lombard, Emmanuel Boss, Anya M. Waite, Meike Vogt, Julia Uitz, Lars Stemann, Heidi M. Sosik, Jan Schulz, Jean-Baptiste Romagnan, Marc Picheral, Jay Pearlman, Mark D. Ohman, Barbara Niehoff, Klas O. Möller, Patricia Miloslavich, Ana Lara-Lpez, Raphael Kudela, Rubens M. Lopes, Rainer Kiko, Lee Karp-Boss, Jules S. Jaffe, Morten H. Iversen, Jean-Olivier Irisson, Katja Fennel, Helena Hauss, Lionel Guidi, Gaby Gorsky, Sarah L. C. Giering, Peter Gaube, Scott Gallager, George Dubelaar, Robert K. Cowen, François Carlotti, Christian Briseño-Avena, Léo Berline, Kelly Benoit-Bird, Nicholas Bax, Sonia Batten, Sakina Dorothée Ayata, Luis Felipe Artigas, and Ward Appeltans. Globally consistent quantitative observations of planktonic ecosystems. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Igarza:2019:DOM**

- [1664] Maricarmen Igarza, Thorsten Dittmar, Michelle Graco, and Jutta Niggemann. Dissolved organic matter cycling in the coastal upwelling system off Central Peru during an “El Niño” year. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Willaert:2019:MVM**

- [1665] Tom Willaert, Ana García-Alegre, Henrique Queiroga, Maria A. Cunque Sá, and Ana Isabel Lillebø. Measuring vulnerability of marine and coastal habitats’ potential to deliver ecosystem services: Complex Atlantic region as case study. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Rouse:2019:BCF**

- [1666] Sally Rouse, Nichola C. Lacey, Peter Hayes, and Thomas A. Wilding. Benthic conservation features and species associated with subsea pipelines: Considerations for decommissioning. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**MacDonald:2019:TSG**

- [1667] Alan MacDonald, Douglas C. Speirs, Simon P. R. Greenstreet, Philip Boulcott, and Michael R. Heath. Trends in sandeel growth and abundance off the East Coast of Scotland. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Carstensen:2019:SMB**

- [1668] Jacob Carstensen, Anna Olszewska, and Slawomir Kwasniewski. Summer mesozooplankton biomass distribution in the West Spitsbergen Current (2001–2014). *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Pierce:2019:ACW**

- [1669] Melissa L. Pierce, Jonathan S. F. Lee, Emily Dodd, and Rachel S. Poretsky. Algae and clay water additives differentially impact survival and microbial community structure in sablefish (*Anoplopoma fimbria*) rearing tanks. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Gaichas:2019:AIE**

- [1670] Sarah K. Gaichas, Geret S. DePiper, Richard J. Seagraves, Brandon W. Muffley, Mary G. Sabo, Lisa L. Colburn, and Andrew J. Loftus. Addendum: Implementing ecosystem approaches to fishery management: Risk assessment in the US Mid-Atlantic. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Paparella:2019:CBP**

- [1671] Francesco Paparella, Chenhao Xu, Grace O. Vaughan, and John A. Burt. Coral bleaching in the Persian/Arabian Gulf is modulated by summer winds. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Foltz:2019:TAO**

- [1672] G. R. Foltz, P. Brandt, I. Richter, B. Rodríguez-Fonseca, F. Hernandez, M. Dengler, R. R. Rodrigues, J. O. Schmidt, L. Yu, N. Lefevre, L. Cotrim Da Cunha, M. J. McPhaden, M. Araujo, J. Karstensen, J. Hahn, M. Martín-Rey, C. M. Patricola, P. Poli, P. Zuidema, R. Hummels, R. C. Perez, V. Hatje, J. F. Lübbecke, I. Polo, R. Lumpkin, B. Bourlès, F. E. Asuquo, P. Lehodey, A. Conchon, P. Chang, P. Dandin, C. Schmid, A. Sutton, H. Giordani, Y. Xue, S. Illig, T. Losada, S. A. Grodsky, F. Gasparin, T. Lee, E. Mohino, P. Nobre, R. Wanninkhof, N. Keenlyside, V. Garçon, E. Sánchez-Gómez, H. C. Nnamchi, M. Dréville, A. Storto, E. Remy, A. Lazar, S. Speich, M. Goes, T. Dorrington, W. E. Johns, J. N. Moum, C. Robinson, C. Perruche, R. B. de Souza, A. T. Gaye, J. López-Parages, P.-A. Monerie, P. Castellanos, N. U. Benson, M. N. Hounkonnou, J. Trotte Duhá, R. Laxenaire, and N. Reul. The tropical Atlantic observing system. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Singh:2019:DHR**

- [1673] Ashneel Ajay Singh, Anish Maharaaj, Michelle Kumar, Priyatma Singh, Sanjay Singh, Frank E. Muller-Karger, Matthew McCarthy, Lionel Joseph, Herve Damlamian, and Zulfikar Begg. Developing high resolution baseline coast resource maps using World View 2 imagery for a coastal village in Fiji. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Galgani:2019:EIM**

- [1674] Luisa Galgani, Ricardo Beiras, François Galgani, Cristina Panti, and Angel Borja. Editorial: Impacts of marine litter. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Ardhuin:2019:SCS**

- [1675] Fabrice Ardhuin, Peter Brandt, Lucile Gaultier, Craig Donlon, Alessandro Battaglia, François Boy, Tania Casal, Bertrand Chapron, Fabrice Collard, Sophie Cravatte, Jean-Marc Delouis, Erik De Witte, Gerald Dibarboure, Geir Engen, Harald Johnsen, Camille Lique, Paco Lopez-Dekker, Christophe Maes, Adrien Martin, Louis Marié, Dimitris Mennenlis, Frederic Noguier, Charles Peureux, Pierre Rampal, Gerhard Ressler, Marie-Helene Rio, Bjorn Rommen, Jamie D. Shutler, Martin

Suess, Michel Tsamados, Clement Ubelmann, Erik van Sebille, Martin van den Oever, and Detlef Stammer. SKIM, a candidate satellite mission exploring global ocean currents and waves. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Deining:2019:RRO**

- [1676] Anne Deining and Helene Frigstad. Reevaluating the role of organic matter sources for coastal eutrophication, oligotrophication, and ecosystem health. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Vance:2019:OCO**

- [1677] Tiffany C. Vance, Micah Wengren, Eugene Burger, Debra Hernandez, Timothy Kearns, Encarni Medina-Lopez, Nazila Merati, Kevin O'Brien, Jon O'Neil, James T. Potemra, Richard P. Signell, and Kyle Wilcox. From the oceans to the cloud: Opportunities and challenges for data, models, computation and workflows. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Brodeur:2019:MSP**

- [1678] Richard D. Brodeur, Toby D. Auth, and Anthony Jason Phillips. Major shifts in pelagic micronekton and macrozooplankton community structure in an upwelling ecosystem related to an unprecedented marine heat-wave. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Kelly:2019:UPP**

- [1679] Christina Kelly, Geraint Ellis, and Wesley Flannery. Unravelling persistent problems to transformative marine governance. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Benedetti:2019:SIA**

- [1680] Fabio Benedetti, Laëtitia Jalabert, Marc Sourisseau, Beatriz Becker, Caroline Cailliau, Corinne Desnos, Amanda Elineau, Jean-Olivier Irisson, Fabien Lombard, Marc Picheral, Lars Stemann, and Patrick Pouline. The seasonal and inter-annual fluctuations of plankton abundance and community structure in a North Atlantic Marine Protected Area. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Germanov:2019:CHU**

- [1681] Elitza S. Germanov, Lars Bejder, Delphine B. H. Chabanne, Dharmadi Dharmadi, I. Gede Hendrawan, Andrea D. Marshall, Simon J. Pierce, Mike van Keulen, and Neil R. Loneragan. Contrasting habitat use and population dynamics of reef manta rays within the Nusa Penida Marine

Protected Area, Indonesia. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Laruelle:2019:CDA**

- [1682] Goulven G. Laruelle, Audrey Marescaux, Romain Le Gendre, Josette Garnier, Christophe Rabouille, and Vincent Thieu. Carbon dynamics along the Seine River network: Insight from a coupled estuarine/river modeling approach. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Stevens:2019:BSB**

- [1683] Craig Stevens and David Plew. Bridging the separation between studies of the biophysics of natural and built marine canopies. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Chan:2019:FPP**

- [1684] Andrea N. Chan, Cynthia L. Lewis, Karen L. Neely, and Iliana B. Baums. Fallen pillars: The past, present, and future population dynamics of a rare, specialist coral–algal symbiosis. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Gong:2019:EGC**

- [1685] Weida Gong and Adrian Marchetti. Estimation of 18S gene copy number in marine eukaryotic plankton using a next-generation sequencing approach. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Garcia-Martin:2019:VVI**

- [1686] E. Elena García-Martín, María Aranguren-Gassis, David M. Karl, Sandra Martínez-García, Carol Robinson, Pablo Serret, and Eva Teira. Validation of the in vivo iodo-nitro-tetrazolium (INT) salt reduction method as a proxy for plankton respiration. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Soppa:2019:AIW**

- [1687] Mariana A. Soppa, Vasileios Pefanis, Sebastian Hellmann, Svetlana N. Losa, Jens Hölemann, Fedor Martynov, Birgit Heim, Markus A. Janout, Tilman Dinter, Vladimir Rozanov, and Astrid Bracher. Assessing the influence of water constituents on the radiative heating of Laptev Sea Shelf waters. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Williams:2019:LAI**

- [1688] Ivor D. Williams, Courtney S. Couch, Oscar Beijbom, Thomas A. Oliver, Bernardo Vargas-Angel, Brett D. Schumacher, and Russell E. Brainard.

Leveraging automated image analysis tools to transform our capacity to assess status and trends of coral reefs. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745.

**Kumar:2019:CFE**

- [1689] P. Kiran Kumar, Arvind Singh, R. Ramesh, and T. Nallathambi. Corrigendum: N<sub>2</sub> fixation in the Eastern Arabian Sea: Probable role of heterotrophic diazotrophs. *Frontiers in Marine Science*, 6, April 2019. ISSN 2296-7745. See [572].

**Suari:2019:SBC**

- [1690] Yair Suari, Tal Amit, Merav Gilboa, Tal Sade, Michael D. Krom, Sarig Gafny, Tom Topaz, and Gitai Yahel. Sandbar breaches control of the biogeochemistry of a micro-estuary. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Simoniello:2019:CSF**

- [1691] Christina Simoniello, Jennifer Jencks, Federico M. Lauro, Jon Derek Loftis, Jan Marcin Weslawski, Kajetan Deja, David R. Forrest, Sarah Gossett, Thomas C. Jeffries, Rachelle M. Jensen, Shinichi Kobara, Lindsey Nolan, Martin Ostrowski, Dana Pounds, Gabriel Roseman, Olivia Basco, Serge Gosselin, Adam Reed, Peter Wills, and David Wyatt. Citizen-science for the future: Advisory case studies from around the globe. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Terlouw:2019:HCS**

- [1692] Gerianne J. Terlouw, Lucie A. C. M. Knor, Eric Heinen De Carlo, Patrick S. Drupp, Fred T. Mackenzie, Yuan Hui Li, Adrienne J. Sutton, Albert J. Plueddemann, and Christopher L. Sabine. Hawaii coastal seawater CO<sub>2</sub> network: a statistical evaluation of a decade of observations on tropical coral reefs. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Bednarsek:2019:SRM**

- [1693] Nina Bednaršek, Richard Alan Feely, Ella L. Howes, Brian P. V. Hunt, Faycal Kessouri, Pablo León, Silke Lischka, Amy E. Maas, Karen McLaughlin, Nikolay P. Nezlin, Martha Sutula, and Stephen B. Weisberg. Systematic review and meta-analysis toward synthesis of thresholds of ocean acidification impacts on calcifying pteropods and interactions with warming. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Behrens:2019:MOH**

- [1694] Erik Behrens, Denise Fernandez, and Phil Sutton. Meridional oceanic heat transport influences marine heatwaves in the tasman sea on inter-annual to decadal timescales. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Andrzejaczek:2019:BTR**

- [1695] Samantha Andrzejaczek, Adrian C. Gleiss, Karissa O. Lear, Charitha B. Pattiaratchi, Taylor K. Chapple, and Mark G. Meekan. Biologging tags reveal links between fine-scale horizontal and vertical movement behaviors in tiger sharks (*Galeocerdo cuvier*). *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Liszka:2019:MCC**

- [1696] Cecilia M. Liszka, Clara Manno, Gabriele Stowasser, Carol Robinson, and Geraint A. Tarling. Mesozooplankton community composition controls fecal pellet flux and remineralization depth in the Southern Ocean. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Leong:2019:IRH**

- [1697] Kirsten M. Leong, Supin Wongbusarakum, Rebecca J. Ingram, Alexander Mawyer, and Melissa R. Poe. Improving representation of human well-being and cultural importance in conceptualizing the West Hawai'i ecosystem. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Morrow:2019:GOF**

- [1698] Rosemary Morrow, Lee-Lueng Fu, Fabrice Arduin, Mounir Benkiran, Bertrand Chapron, Emmanuel Cosme, Francesco d'Ovidio, J. Thomas Farrar, Sarah T. Gille, Guillaume Lapeyre, Pierre-Yves Le Traon, Ananda Pascual, Aurélien Ponte, Bo Qiu, Nicolas Rascle, Clement Ubelmann, Jinbo Wang, and Edward D. Zaron. Global observations of fine-scale ocean surface topography with the surface water and ocean topography (SWOT) mission. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Stoicescu:2019:CAE**

- [1699] Stella-Theresa Stoicescu, Urmas Lips, and Taavi Liblik. Corrigendum: Assessment of eutrophication status based on sub-surface oxygen conditions in the Gulf of Finland (Baltic Sea). *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745. See [1522].



**LeTraon:2019:OIU**

- [1700] Pierre Yves Le Traon, Antonio Reppucci, Enrique Alvarez Fanjul, Lotfi Aouf, Arno Behrens, Maria Belmonte, Abderrahim Bentamy, Laurent Bertino, Vittorio Ernesto Brando, Matilde Brandt Kreiner, Mounir Benkiran, Thierry Carval, Stefania A. Ciliberti, Hervé Claustré, Emanuela Clementi, Giovanni Coppini, Gianpiero Cossarini, Marta De Alfonso Alonso-Muñoyerro, Anne Delamarche, Gerald Dibarboure, Frode Dinnessen, Marie Drevillon, Yann Drillet, Yannice Faugere, Vicente Fernández, Andrew Fleming, M. Isabel Garcia-Hermosa, Marcos García Sotillo, Gilles Garric, Florent Gasparin, Cedric Giordan, Marion Gehlen, Marilaure L. Gregoire, Stephanie Guinehut, Mathieu Hamon, Chris Harris, Fabrice Hernandez, Jørgen B. Hinkler, Jacob Hoyer, Juha Karvonen, Susan Kay, Robert King, Thomas Lavergne, Benedicte Lemieux-Dudon, Leonardo Lima, Chongyuan Mao, Matthew J. Martin, Simona Masina, Angelique Melet, Bruno Buongiorno Nardelli, Glenn Nolan, Ananda Pascual, Jenny Pistoia, Atanas Palazov, Jean Francois Piolle, Marie Isabelle Pujol, Anne Christine Pequignet, Elisaveta Peneva, Begoña Pérez Gómez, Loic Petit de la Villeon, Nadia Pinardi, Andrea Pisano, Sylvie Pouliquen, Rebecca Reid, Elisabeth Remy, Rosalia Santoleri, John Siddorn, Jun She, Joanna Staneva, Ad Stoffelen, Marina Tonani, Luc Vandembulcke, Karina von Schuckmann, Gianluca Volpe, Cecilie Wettre, and Anna Zacharioudaki. From observation to information and users: The Copernicus Marine Service Perspective. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Carnicer:2019:MDA**

- [1701] Olga Carnicer, Patricia De La Fuente, Antonio Canepa, Inti Keith, Eduardo Rebolledo-Monsalve, Jorge Diogène, and Margarita Fernández-Tejedor. Marine dinoflagellate assemblage in the Galápagos Marine Reserve. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Smith:2019:DSS**

- [1702] Hillary Smith and Xavier Basurto. Defining small-scale fisheries and examining the role of science in shaping perceptions of who and what counts: a systematic review. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Barletta:2019:SRF**

- [1703] Mário Barletta and André R. A. Lima. Systematic review of fish ecology and anthropogenic impacts in South American estuaries: Setting priorities for ecosystem conservation. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Crotty:2019:FBC**

- [1704] Sinead M. Crotty, Andrew H. Altieri, John F. Bruno, Hallie Fischman, and Mark D. Bertness. The foundation for building the conservation capacity of community ecology. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Hermoso:2019:HDD**

- [1705] María I. Hermoso, Victoria Y. Martin, Wolfgang Stotz, Stefan Gelcich, and Martin Thiel. How does the diversity of divers affect the design of citizen science projects? *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Amezcuca:2019:EHC**

- [1706] Felipe Amezcua, Jana Rajnohova, Francisco Flores de Santiago, Francisco Flores-Verdugo, and Felipe Amezcua-Linares. The effect of hydrological connectivity on fish assemblages in a floodplain system from the South-East Gulf of California, Mexico. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Levin:2019:GON**

- [1707] Lisa A. Levin, Brian J. Bett, Andrew R. Gates, Patrick Heimbach, Bruce M. Howe, Felix Janssen, Andrea McCurdy, Henry A. Ruhl, Paul Snelgrove, Karen I. Stocks, David Bailey, Simone Baumann-Pickering, Chris Beaverson, Mark C. Benfield, David J. Booth, Marina Carreiro-Silva, Ana Colaço, Marie C. Eblé, Ashley M. Fowler, Kristina M. Gjerde, Daniel O. B. Jones, K. Katsumata, Deborah Kelley, Nadine Le Bris, Alan P. Leonardi, Franck Lejzerowicz, Peter I. Macreadie, Dianne McLean, Fred Meitz, Telmo Morato, Amanda Netburn, Jan Pawlowski, Craig R. Smith, Song Sun, Hiroshi Uchida, Michael F. Vardaro, R. Venkatesan, and Robert A. Weller. Global observing needs in the deep ocean. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Snowden:2019:UIO**

- [1708] Jessica Snowden, Debra Hernandez, Josie Quintrell, Alexandra Harper, Ru Morrison, Julio Morell, and Lynn Leonard. The U.S. Integrated Ocean Observing System: Governance milestones and lessons from two decades of growth. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Vinogradova:2019:SSO**

- [1709] Nadya Vinogradova, Tong Lee, Jacqueline Boutin, Kyla Drushka, Severine Fournier, Roberto Sabia, Detlef Stammer, Eric Bayler, Nicolas Reul,

Arnold Gordon, Oleg Melnichenko, Laifang Li, Eric Hackert, Matthew Martin, Nicolas Kolodziejczyk, Audrey Hasson, Shannon Brown, Sidharth Misra, and Eric Lindstrom. Satellite salinity observing system: Recent discoveries and the way forward. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Olli:2019:FWF**

- [1710] Kalle Olli, Elisabeth Halvorsen, Maria Vernet, Peter J. Lavrentyev, Gayantonia Franzè, Marina Sanz-Martin, Maria Lund Paulsen, and Marit Reigstad. Food web functions and interactions during spring and summer in the Arctic water inflow region: Investigated through inverse modeling. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Shope:2019:AMC**

- [1711] James B. Shope and Curt D. Storlazzi. Assessing morphologic controls on atoll island alongshore sediment transport gradients due to future sea-level rise. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Rubin:2019:TRF**

- [1712] Ewelina T. Rubin, Shu Cheng, Amanda L. Montalbano, Susanne Menden-Deuer, and Tatiana A. Rynearson. Transcriptomic response to feeding and starvation in a herbivorous dinoflagellate. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Risch:2019:CAM**

- [1713] Denise Risch, Thomas Norris, Matthew Curnock, and Ari Friedlaender. Common and Antarctic minke whales: Conservation status and future research directions. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Ropert-Coudert:2019:HFH**

- [1714] Yan Ropert-Coudert, Andre Chiaradia, David Ainley, Andres Barbosa, P. Dee Boersma, Rebecka Brasso, Meagan Dewar, Ursula Ellenberg, Pablo García-Borboroglu, Louise Emmerson, Rachel Hickcox, Stephanie Jenouvrier, Akiko Kato, Rebecca Ruth McIntosh, Phoebe Lewis, Francisco Ramírez, Valeria Ruoppolo, Peter G. Ryan, Philip J. Seddon, Richard Brain Sherley, Ralph E. T. Vanstreels, Lauren J. Waller, Eric J. Woehler, and Phil N. Trathan. Happy feet in a hostile world? The future of penguins depends on proactive management of current and expected threats. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Kadin:2019:TIM**

- [1715] Martina Kadin, Thorsten Blenckner, Michele Casini, Anna Gårdmark, Maria Angeles Torres, and Saskia A. Otto. Trophic interactions, man-

agement trade-offs and climate change: The need for adaptive thresholds to operationalize ecosystem indicators. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Anderson:2019:SRC**

- [1716] Clarissa R. Anderson, Elisa Berdalet, Raphael M. Kudela, Caroline K. Cusack, Joe Silke, Eleanor O'Rourke, Darcy Dugan, Molly McCammon, Jan A. Newton, Stephanie K. Moore, Kelli Paige, Steve Ruberg, John R. Morrison, Barbara Kirkpatrick, Katherine Hubbard, and Julio Morell. Scaling up from regional case studies to a global harmful algal bloom observing system. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Jamet:2019:GBS**

- [1717] Cédric Jamet, Amir Ibrahim, Ziauddin Ahmad, Federico Angelini, Marcel Babin, Michael J. Behrenfeld, Emmanuel Boss, Brian Cairns, James Churnside, Jacek Chowdhary, Anthony B. Davis, Davide Dionisi, Lucile Duforêt-Gaurier, Bryan Franz, Robert Frouin, Meng Gao, Deric Gray, Otto Hasekamp, Xianqiang He, Chris Hostetler, Olga V. Kalashnikova, Kirk Knobelspiesse, Léo Lacour, Hubert Loisel, Vanderlei Martins, Eric Rehm, Lorraine Remer, Idriss Sanhaj, Knut Stamnes, Snorre Stamnes, Stéphane Victori, Jeremy Werdell, and Peng-Wang Zhai. Going beyond standard ocean color observations: Lidar and polarimetry. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Jovane:2019:MSC**

- [1718] Luigi Jovane, James R. Hein, Isobel A. Yeo, Mariana Benites, Natascha M. Bergo, Paulo V. F. Corrêa, Daniel M. Couto, Ayrton D. Guimarães, Sarah A. Howarth, Henrique R. Miguel, Kira L. Mizell, Denise S. Moura, Francisco L. Vicentini Neto, Mayza Pompeu, Ianco M. M. Rodrigues, Frederico R. Santana, Pedro F. Serrao, Tomas E. Silva, Pedro M. Tura, Carolina L. Viscarra, Mateus G. Chuqui, Vivian H. Pelizari, Camila N. Signori, Ilson C. A. Da Silveira, Paulo Y. G. Sumida, Bramley J. Murton, and Frederico P. Brandini. Multidisciplinary scientific cruise to the Rio Grande Rise. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Sainz:2019:SPM**

- [1719] Jade F. Sainz, Emanuele Di Lorenzo, Tom W. Bell, Steve Gaines, Hunter Lenihan, and Robert J. Miller. Spatial planning of marine aquaculture under climate decadal variability: a case study for mussel farms in Southern California. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Halbach:2019:TGB**

- [1720] Laura Halbach, Mikko Vihtakari, Pedro Duarte, Alistair Everett, Mats A. Granskog, Haakon Hop, Hanna M. Kauko, Svein Kristiansen, Per I. Myhre, Alexey K. Pavlov, Ankit Pramanik, Agnieszka Tatarek, Tomas Torsvik, Józef M. Wiktor, Anette Wold, Angela Wulff, Harald Steen, and Philipp Assmy. Tidewater glaciers and bedrock characteristics control the phytoplankton growth environment in a fjord in the Arctic. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Herrero:2019:NAD**

- [1721] Fuensanta Salas Herrero, Heliana Teixeira, and Sandra Poikane. A novel approach for deriving nutrient criteria to support good ecological status: Application to coastal and transitional waters and indications for use. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Carlisle:2019:ESU**

- [1722] Aaron B. Carlisle, David Tickler, Jonathan J. Dale, Francesco Ferretti, David J. Curnick, Taylor K. Chapple, Robert J. Schallert, Michael Castleton, and Barbara A. Block. Estimating space use of mobile fishes in a large Marine Protected Area with methodological considerations in acoustic array design. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Sprintall:2019:DCI**

- [1723] Janet Sprintall, Arnold L. Gordon, Susan E. Wijffels, Ming Feng, Shijian Hu, Ariane Koch-Larrouy, Helen Phillips, Dwiyoga Nugroho, Asmi Napitu, Kandaga Pujiana, R. Dwi Susanto, Bernadette Sloyan, Beatriz Peña-Molino, Dongliang Yuan, Nelly Florida Riama, Siswanto Siswanto, Anastasia Kuswardani, Zainal Arifin, A'an J. Wahyudi, Hui Zhou, Taira Nagai, Joseph K. Ansong, Romain Bourdalle-Badié, Jerome Chanut, Florent Lyard, Brian K. Arbic, Andri Ramdhani, and Agus Setiawan. Detecting change in the Indonesian Seas. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745. See corrigendum [2013].

**Goodbody-Gringley:2019:EDI**

- [1724] Gretchen Goodbody-Gringley, Corey Eddy, Joanna Maria Pitt, Alex D. Chequer, and Struan Robertson Smith. Ecological drivers of invasive lionfish (*Pterois volitans* and *Pterois miles*) distribution across mesophotic reefs in Bermuda. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Mandal:2019:MSV**

- [1725] Sandip Mandal, S. Lan Smith, Anupam Priyadarshi, and Hidekatsu Yamazaki. Micro-scale variability impacts the outcome of competition between different modeled size classes of phytoplankton. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Frajka-Williams:2019:AMO**

- [1726] Eleanor Frajka-Williams, Isabelle J. Ansorge, Johanna Baehr, Harry L. Bryden, Maria Paz Chidichimo, Stuart A. Cunningham, Gokhan Danabasoglu, Shenfu Dong, Kathleen A. Donohue, Shane Elipot, Patrick Heimbach, N. Penny Holliday, Rebecca Hummels, Laura C. Jackson, Johannes Karstensen, Matthias Lankhorst, Isabela A. Le Bras, M. Susan Lozier, Elaine L. McDonagh, Christopher S. Meinen, Herlé Mercier, Bengamin I. Moat, Renellys C. Perez, Christopher G. Piecuch, Monika Rhein, Meric A. Srokosz, Kevin E. Trenberth, Sheldon Bacon, Gael Forget, Gustavo Goni, Dagmar Kieke, Jannes Koelling, Tarron Lamont, Gerard D. McCarthy, Christian Mertens, Uwe Send, David A. Smeed, Sabrina Speich, Marcel van den Berg, Denis Volkov, and Chris Wilson. Atlantic meridional overturning circulation: Observed transport and variability. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Wenhai:2019:SBE**

- [1727] Lu Wenhai, Caroline Cusack, Maria Baker, Wang Tao, Chen Mingbao, Kelli Paige, Zhang Xiaofan, Lisa Levin, Elva Escobar, Diva Amon, Yin Yue, Anja Reitz, Antonio Augusto Sepp Neves, Eleanor O'Rourke, Gianandrea Mannarini, Jay Pearlman, Jonathan Tinker, Kevin J. Horsburgh, Patrick Lehodey, Sylvie Pouliquen, Trine Dale, Zhao Peng, and Yang Yufeng. Successful blue economy examples with an emphasis on international perspectives. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Tavares:2019:TSM**

- [1728] Davi Castro Tavares, Jailson F. Moura, Esteban Acevedo-Trejos, and Agostino Merico. Traits shared by marine megafauna and their relationships with ecosystem functions and services. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Geraldi:2019:FBC**

- [1729] Nathan R. Geraldi, Alejandra Ortega, Oscar Serrano, Peter I. Macreadie, Catherine E. Lovelock, Dorte Krause-Jensen, Hilary Kennedy, Paul S. Lavery, Michael L. Pace, Joeri Kaal, and Carlos M. Duarte. Fingerprinting blue carbon: Rationale and tools to determine the source of organic

carbon in marine depositional environments. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Lavrentyev:2019:MDD**

- [1730] Peter J. Lavrentyev, Gayantonia Franzè, and Francisco B. Moore. Microzooplankton distribution and dynamics in the Eastern Fram Strait and the Arctic Ocean in May and August 2014. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Steneck:2019:MRR**

- [1731] Robert S. Steneck, Suzanne N. Arnold, Robert Boenish, Ramón de León, Peter J. Mumby, Douglas B. Rasher, and Margaret W. Wilson. Managing recovery resilience in coral reefs against climate-induced bleaching and hurricanes: a 15 year case study from Bonaire, Dutch Caribbean. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745. See commentary [2209].

**Feng:2019:ASH**

- [1732] Xue Feng and Toshiaki Shinoda. Air-sea heat flux variability in the Southeast Indian Ocean and its relation with Ningaloo Niño. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Garcias-Bonet:2019:CNC**

- [1733] Neus Garcias-Bonet, Antonio Delgado-Huertas, Paloma Carrillo de Albornoz, Andrea Anton, Hanan Almahasheer, Núria Marbà, Iris E. Hendriks, Dorte Krause-Jensen, and Carlos M. Duarte. Carbon and nitrogen concentrations, stocks, and isotopic compositions in Red Sea seagrass and mangrove sediments. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Brakel:2019:MEL**

- [1734] Janina Brakel, Stina Jakobsson-Thor, Anna-Christina Bockelmann, and Thorsten B. H. Reusch. Modulation of the eelgrass — *Labyrinthula zosterae* interaction under predicted ocean warming, salinity change and light limitation. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Vieira:2019:LTS**

- [1735] João Vieira, Verónica Román-Robles, Fábio Rodrigues, Lisiane Ramos, and Mauricio Lang dos Santos. Long-term spatiotemporal variation in the juvenile fish assemblage of the Tramandaí River Estuary (29°S) and adjacent coast in Southern Brazil. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Cardich:2019:MCM**

- [1736] Jorge Cardich, Abdelfettah Sifeddine, Renato Salvatteci, Dennis Romero, Francisco Briceño-Zuluaga, Michelle Graco, Tony Anculle, Carine Almeida, and Dimitri Gutiérrez. Multidecadal changes in marine subsurface oxygenation off Central Peru during the last ca. 170 years. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Erb:2019:NSM**

- [1737] Victoria Erb and Jeanette Wyneken. Nest-to-surf mortality of loggerhead sea turtle (*Caretta caretta*) hatchlings on Florida's East Coast. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Spilling:2019:ECP**

- [1738] Kristian Spilling, Letizia Tedesco, Riina Klais, and Kalle Olli. Editorial: Changing plankton communities: Causes, effects and consequences. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Stoll-Kleemann:2019:FOB**

- [1739] Susanne Stoll-Kleemann. Feasible options for behavior change toward more effective ocean literacy: a systematic review. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Olita:2019:MCH**

- [1740] Antonio Olita, Leopoldo Fazioli, Costanza Tedesco, Simone Simeone, Andrea Cucco, Giovanni Quattrocchi, Alberto Ribotti, Angelo Perilli, Federica Pessini, and Roberto Sorgente. Marine and coastal hazard assessment for three coastal oil rigs. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Zhu:2019:PPD**

- [1741] Yuanli Zhu, David J. Suggett, Chenggang Liu, Jianfeng He, Longshan Lin, Fengfeng Le, Joji Ishizaka, Joaquim Goes, and Qiang Hao. Primary productivity dynamics in the summer Arctic Ocean confirms broad regulation of the electron requirement for carbon fixation by light-phytoplankton community interaction. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Marre:2019:MMH**

- [1742] Guilhem Marre, Florian Holon, Sandra Luque, Pierre Boissery, and Julie Deter. Monitoring marine habitats with photogrammetry: a cost-effective, accurate, precise and high-resolution reconstruction method. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.



**Pearlman:2019:ESO**

- [1743] Jay Pearlman, Mark Bushnell, Laurent Coppola, Johannes Karstensen, Pier Luigi Buttigieg, Françoise Pearlman, Pauline Simpson, Michele Barbier, Frank E. Muller-Karger, Cristian Muñoz-Mas, Peter Pissierssens, Cyndy Chandler, Juliet Hermes, Emma Heslop, Reyna Jenkyns, Eric P. Achterberg, Manuel Bensi, Henry C. Bittig, Jerome Blandin, Julie Bosch, Bernard Bourles, Roberto Bozzano, Justin J. H. Buck, Eugene F. Burger, Daniel Cano, Vanessa Cardin, Miguel Charcos Llorens, Andrés Cianca, Hua Chen, Caroline Cusack, Eric Delory, René Garello, Gabriele Giovanetti, Valerie Harscoat, Susan Hartman, Robert Heitsenrether, Simon Jirka, Ana Lara-Lopez, Nadine Lantéri, Adam Leadbetter, Giuseppe Manzella, Joan Maso, Andrea McCurdy, Eric Mousset, Manolis Ntoumas, Sara Pensieri, George Petihakis, Nadia Pinardi, Sylvie Pouliquen, Rachel Przeslawski, Nicholas P. Roden, Joe Silke, Mario N. Tamburri, Hairong Tang, Toste Tanhua, Maciej Telszewski, Pierre Testor, Julie Thomas, Christoph Waldmann, and Fred Whoriskey. Evolving and sustaining ocean best practices and standards for the next decade. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Ramiro-Sanchez:2019:CMD**

- [1744] Berta Ramiro-Sánchez, José Manuel González-Irusta, Lea-Anne Henry, Jason Cleland, Isobel Yeo, Joana R. Xavier, Marina Carreiro-Silva, Íris Sampaio, Jeremy Spearman, Lissette Victorero, Charles G. Messing, Georgios Kazanidis, J. Murray Roberts, and Bramley Murton. Characterization and mapping of a deep-sea sponge ground on the Tropic Seamount (Northeast Tropical Atlantic): Implications for spatial management in the High Seas. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Folkard:2019:BIF**

- [1745] Andrew M. Folkard. Biophysical interactions in fragmented marine canopies: Fundamental processes, consequences, and upscaling. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Lipcius:2019:MQV**

- [1746] Romuald N. Lipcius, David B. Eggleston, F. Joel Fodrie, Jaap van der Meer, Kenneth A. Rose, Rita P. Vasconcelos, and Karen E. van de Wolfshaar. Modeling quantitative value of habitats for marine and estuarine populations. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Albalat:2019:ETP**

- [1747] Amaya Albalat, Laura Johnson, Christopher J. Coates, Gregory C. Dykes, Fiona Hitte, Bernat Morro, James Dick, Keith Todd, and Dou-

glas M. Neil. The effect of temperature on the physiological condition and immune-capacity of European lobsters (*Homarus gammarus*) during long-term starvation. *Frontiers in Marine Science*, 6, May 2019. ISSN 2296-7745.

**Davis:2019:FYS**

- [1748] Kay L. Davis, Ashly McMahon, Brendan Kelaher, Emily Shaw, and Isaac R. Santos. Fifty years of sporadic coral reef calcification estimates at One Tree Island, Great Barrier Reef: Is it enough to imply long term trends? *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Wolf:2019:SMC**

- [1749] Anne-Cathrin Wöfl, Helen Snaith, Sam Amirebrahimi, Colin W. Devey, Boris Dorschel, Vicki Ferrini, Veerle A. I. Huvenne, Martin Jakobsson, Jennifer Jencks, Gordon Johnston, Geoffroy Lamarche, Larry Mayer, David Millar, Terje Haga Pedersen, Kim Picard, Anja Reitz, Thierry Schmitt, Martin Visbeck, Pauline Weatherall, and Rochelle Wigley. Seafloor mapping — the challenge of a truly global ocean bathymetry. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Liu:2019:TTN**

- [1750] Zhenfeng Liu, Lisa Y. Mesrop, Sarah K. Hu, and David A. Caron. Transcriptome of *Thalassicolla nucleata* Holobiont reveals details of a radiolarian symbiotic relationship. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Magill:2019:SHE**

- [1751] Caroline L. Magill, Christine A. Maggs, Mark P. Johnson, and Nessa O'Connor. Sustainable harvesting of the ecosystem engineer *Corallina officinalis* for biomaterials. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Lomas:2019:PCE**

- [1752] Michael W. Lomas, Steven E. Baer, Sydney Acton, and Jeffrey W. Krause. Pumped up by the cold: Elemental quotas and stoichiometry of cold-water diatoms. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**NeumannLeitao:2019:CBC**

- [1753] Sigrid Neumann Leitão, Mauro de Melo Junior, Fernando de Figueiredo Porto Neto, Andréa Pinto Silva, Xiomara Franchesca Garcia Diaz, Tamara de Almeida e Silva, Dilma Aguiar do Nascimento Vieira, Lucas Guedes Pereira Figueiredo, Alejandro Esteweson Santos Faustino da Costa, Jana Ribeiro de Santana, Renata Polyana de Santana Campelo,

Pedro Augusto Mendes de Castro Melo, Valdylene Tavares Pessoa, Simone Maria de Albuquerque Lira, and Ralf Schwamborn. Connectivity between coastal and oceanic zooplankton from rio grande do norte in the tropical Western Atlantic. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Ashley:2019:CMA**

- [1754] Matthew Ashley, Sabine Pahl, Gillian Glegg, and Stephen Fletcher. A change of mind: Applying social and behavioral research methods to the assessment of the effectiveness of ocean literacy initiatives. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Mcleod:2019:LPI**

- [1755] Elizabeth Mcleod, Mae Bruton-Adams, Johannes Förster, Chiara Franco, Graham Gaines, Berna Gorong, Robyn James, Gabriel Posing-Kulwaum, Magdalene Tara, and Elizabeth Terk. Lessons from the Pacific Islands — adapting to climate change by supporting social and ecological resilience. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Iwamoto:2019:MRC**

- [1756] Melissa M. Iwamoto, Jennifer Dorton, Jan Newton, Moirah Yerta, James Gibeaut, Tom Shyka, Barbara Kirkpatrick, and Robert Currier. Meeting regional, coastal and ocean user needs with tailored data products: a stakeholder-driven process. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Moltmann:2019:GOO**

- [1757] Tim Moltmann, Jon Turton, Huai-Min Zhang, Glenn Nolan, Carl Gouldman, Laura Griesbauer, Zdenka Willis, Ángel Muñoz Piniella, Sue Barrrell, Erik Andersson, Champika Gallage, Etienne Charpentier, Mathieu Belbeoch, Paul Poli, Anthony Rea, Eugene F. Burger, David M. Legler, Rick Lumpkin, Christian Meinig, Kevin O'Brien, Korak Saha, Adrienne Sutton, Dongxiao Zhang, and Yongsheng Zhang. A Global Ocean Observing System (GOOS), delivered through enhanced collaboration across regions, communities, and new technologies. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Westerbom:2019:PDR**

- [1758] Mats Westerbom, Olli Mustonen, Kim Jaatinen, Mikael Kilpi, and Alf Norkko. Population dynamics at the range margin: Implications of climate change on sublittoral blue mussels (*Mytilus trossulus*). *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Svensen:2019:ZCA**

- [1759] Camilla Svensen, Elisabeth Halvorsen, Maria Vernet, Gayantonia Franzè, Katarzyna Dmoch, Peter J. Lavrentyev, and Slawomir Kwasniewski. Zooplankton communities associated with new and regenerated primary production in the Atlantic inflow north of Svalbard. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Badhon:2019:IPS**

- [1760] Mahatub Khan Badhon, Md Kutub Uddin, Fahmida Khaliq Nitu, and Enamul Mazid Khan Siddique. Identifying priorities for shark conservation in the Bay of Bengal, Bangladesh. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Viljoen:2019:LBP**

- [1761] Johannes J. Viljoen, Ian Weir, Susanne Fietz, Ryan Cloete, Jean Loock, Raissa Philibert, and Alakendra N. Roychoudhury. Links between the phytoplankton community composition and trace metal distribution in summer surface waters of the Atlantic Southern Ocean. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Cardinale:2019:RCS**

- [1762] Massimiliano Cardinale, Piera Carpi, and Giuseppe Scarcella. Response: Commentary: The Saga of the Management of Fisheries in the Adriatic Sea: History, Flaws, Difficulties, and Successes Toward the Application of the Common Fisheries Policy in the Mediterranean. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745. See [913, 1398].

**Steinert:2019:PDC**

- [1763] Georg Steinert, Bernd Wemheuer, Dorte Janussen, Dirk Erpenbeck, Rolf Daniel, Meinhard Simon, Thorsten Brinkhoff, and Peter J. Schupp. Prokaryotic diversity and community patterns in Antarctic Continental Shelf sponges. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Evans:2019:GIW**

- [1764] Karen Evans, Sanae Chiba, Maria J. Bebianno, Carlos Garcia-Soto, Henn Ojaveer, Chul Park, Renison Ruwa, Alan J. Simcock, C. T. Vu, and Tymon Zielinski. The global integrated world ocean assessment: Linking observations to science and policy across multiple scales. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Guerrini:2019:MPE**

- [1765] Federica Guerrini, Lorenzo Mari, and Renato Casagrandi. Modeling plastics exposure for the marine biota: Risk maps for fin whales in the Pelagos Sanctuary (North-Western Mediterranean). *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Smith:2019:TWT**

- [1766] Emily A. Smith, William Sweet, Molly Mitchell, Ricardo Domingues, Christopher P. Weaver, Molly Baringer, Gustavo Goni, John Haines, J. Derek Loftis, John Boon, and David Malmquist. Treading water: Tools to help US coastal communities plan for sea level rise impacts. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Futch:2019:SRA**

- [1767] Victoria Futch and Arthur Allen. Search and rescue applications: On the need to improve ocean observing data systems in offshore or remote locations. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Leitao:2019:MSL**

- [1768] Francisco Leitão. Mean size of the landed catch: a fishery community index for trend assessment in exploited marine ecosystems. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**daSilva:2019:FTF**

- [1769] Victor E. L. da Silva, Luana P. S. Silva-Firmiano, Fabrício B. Teresa, Vandick S. Batista, Richard J. Ladle, and Nidia N. Fabr e. Functional traits of fish species: Adjusting resolution to accurately express resource partitioning. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Erickson:2019:NCP**

- [1770] Lucy E. Erickson, Sally Snow, Md. Kutub Uddin, and Gianna M. Savoie. The need for a code of professional ethics for marine conservation communicators. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Reimer:2019:EBU**

- [1771] James Davis Reimer, Hiroki Kise, Maria E. A. Santos, Dhugal John Lindsay, Richard L. Pyle, Joshua M. Copus, Brian W. Bowen, Masanori Nonaka, Takuo Higashiji, and Yehuda Benayahu. Exploring the biodiversity of understudied benthic taxa at mesophotic and deeper depths: Examples from the order Zoantharia (Anthozoa: Hexacorallia). *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Sivaguru:2019:CFD**

- [1772] Mayandi Sivaguru, Kyle W. Fouke, Lauren Todorov, Michael J. Kingsford, Kaitlyn E. Fouke, Jeffrey M. Trop, and Bruce W. Fouke. Correction factors for  $\delta^{18}\text{O}$ -derived global sea surface temperature reconstructions from diagenetically altered intervals of coral skeletal density banding. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Stefanoudis:2019:DDS**

- [1773] Paris V. Stefanoudis, Erika Gress, Joanna M. Pitt, Struan Robertson Smith, Todd Kincaid, Molly Rivers, Dominic A. Andradi-Brown, Gwilym Rowlands, Lucy C. Woodall, and Alex D. Rogers. Depth-dependent structuring of reef fish assemblages from the shallows to the rariphotic zone. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Somboonna:2019:MBD**

- [1774] Naraporn Somboonna, Alisa Wilantho, Panan Rerngsamran, and Sissades Tongsimma. Marine bacterial diversity in coastal Sichang Island, the Upper Gulf of Thailand, in 2011 wet season. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Kaiser:2019:ICO**

- [1775] Brooks A. Kaiser, Maia Hoeberechts, Kimberley H. Maxwell, Laura Eerkes-Medrano, Nathalie Hilmi, Alain Safa, Chris Horbel, S. Kim Juniper, Moninya Roughan, Nicholas Theux Lowen, Katherine Short, and Danny Paruru. The importance of connected ocean monitoring knowledge systems and communities. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Ben-Hasan:2019:EMP**

- [1776] Abdulrahman Ben-Hasan, Carl Walters, and U. Rashid Sumaila. Effects of management on the profitability of seasonal fisheries. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Schroter:2019:PAE**

- [1777] Franz Schröter, Charlotte Havermans, Angelina Kraft, Nadine Knüppel, Agnieszka Beszczynska-Möller, Eduard Bauerfeind, and Eva-Maria Nöthig. Pelagic amphipods in the Eastern Fram Strait with continuing presence of *Themisto compressa* based on sediment trap time series. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Longphuirt:2019:DAB**

- [1778] Sorcha Ní Longphuirt, Georgina McDermott, Shane O'Boyle, Robert Wilkes, and Dagmar Brigitte Stengel. Decoupling abundance and

biomass of phytoplankton communities under different environmental controls: a new multi-metric index. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Miguez:2019:EMO**

- [1779] Belén Martín Míguez, Antonio Novellino, Matteo Vinci, Simon Claus, Jan-Bart Calewaert, Henry Vallius, Thierry Schmitt, Alessandro Pititto, Alessandra Giorgetti, Natalie Askew, Sissy Iona, Dick Schaap, Nadia Pinardi, Quillon Harpham, Belinda J. Kater, Jacques Populus, Jun She, Atanas Vasilev Palazov, Oonagh McMeel, Paula Oset, Dan Lear, Giuseppe M. R. Manzella, Patrick Gorringe, Simona Simoncelli, Kate Larkin, Neil Holdsworth, Christos Dimitrios Arvanitidis, Maria Eugenia Molina Jack, Maria del Mar Chaves Montero, Peter M. J. Herman, and Francisco Hernandez. The European Marine Observation and Data Network (EMODnet): Visions and roles of the gateway to marine data in Europe. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**She:2019:IAC**

- [1780] Jun She, Ángel Muñoz Piniella, Lisandro Benedetti-Cecchi, Lars Boehme, Ferdinando Boero, Asbjorn Christensen, Tasman Crowe, Miroslaw Darecki, Enrique Nogueira, Antoine Gremare, Francisco Hernandez, Tarmo Kouts, Jacco Kromkamp, George Petihakis, Isabel Sousa Pinto, Jan Hinrich Reissmann, Laura Tuomi, and Adriana Zingone. An integrated approach to coastal and biological observations. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Palazov:2019:BSO**

- [1781] Atanas Palazov, Stefania Ciliberti, Elisaveta Peneva, Marilaure Gregoire, Joanna Staneva, Benedicte Lemieux-Dudon, Simona Masina, Nadia Pinardi, Luc Vandenbulcke, Arno Behrens, Leonardo Lima, Giovanni Coppini, Veselka Marinova, Violeta Slabakova, Rita Lecci, Sergio Creti, Francesco Palermo, Laura Stefanizzi, Nadezhda Valcheva, and Paola Agostini. Black Sea observing system. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Forlin:2019:MEB**

- [1782] Lars Förlin, Noomi Asker, Mats Töpel, Tobias Österlund, Erik Kristiansson, Jari Parkkonen, Peter Haglund, Suzanne Faxneld, and Joachim Sturve. mRNA expression and biomarker responses in perch at a biomonitoring site in the Baltic Sea — possible influence of natural brominated chemicals. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Duffy:2019:TCG**

- [1783] J. Emmett Duffy, Lisandro Benedetti-Cecchi, Joaquin Trinanes, Frank E. Muller-Karger, Rohani Ambo-Rappe, Christoffer Boström, Alejandro H. Buschmann, Jarrett Byrnes, Robert G. Coles, Joel Creed, Leanne C. Cullen-Unsworth, Guillermo Diaz-Pulido, Carlos M. Duarte, Graham J. Edgar, Miguel Fortes, Gustavo Goni, Chuanmin Hu, Xiaoping Huang, Catriona L. Hurd, Craig Johnson, Brenda Konar, Dorte Krause-Jensen, Kira Krumhansl, Peter Macreadie, Helene Marsh, Len J. McKenzie, Nova Mieszkowska, Patricia Miloslavich, Enrique Montes, Masahiro Nakaoka, Kjell Magnus Norderhaug, Lina M. Norlund, Robert J. Orth, Anchana Prathep, Nathan F. Putman, Jimena Samper-Villarreal, Ester A. Serrao, Frederick Short, Isabel Sousa Pinto, Peter Steinberg, Rick Stuart-Smith, Richard K. F. Unsworth, Mike van Keulen, Brigitta I. van Tussenbroek, Mengqiu Wang, Michelle Waycott, Lauren V. Weatherdon, Thomas Wernberg, and Siti Maryam Yaakub. Toward a coordinated global observing system for seagrasses and marine macroalgae. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Cloyed:2019:LUS**

- [1784] Carl S. Cloyed, Elizabeth E. Hieb, Merri K. Collins, Kayla P. DaCosta, and Ruth H. Carmichael. Linking use of ship channels by West Indian manatees (*Trichechus manatus*) to seasonal migration and habitat use. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Boatman:2019:IAS**

- [1785] Tobias G. Boatman, Richard J. Geider, and Kevin Oxborough. Improving the accuracy of single turnover active fluorometry (STAF) for the estimation of phytoplankton primary productivity (PhytoPP). *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Iuculano:2019:PDU**

- [1786] Francesca Iuculano, Xosé Antón Álvarez-Salgado, Jaime Otero, Teresa S. Catalá, Cristina Sobrino, Carlos M. Duarte, and Susana Agustí. Patterns and drivers of UV absorbing chromophoric dissolved organic matter in the euphotic layer of the open ocean. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Batten:2019:GPD**

- [1787] Sonia D. Batten, Rana Abu-Alhaija, Sanae Chiba, Martin Edwards, George Graham, R. Jyothibabu, John A. Kitchener, Philippe Koubbi, Abigail McQuatters-Gollop, Erik Muxagata, Clare Ostle, Anthony J. Richardson, Karen V. Robinson, Kunio T. Takahashi, Hans M. Verh-



eye, and Willie Wilson. A global plankton diversity monitoring program. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Gao:2019:EOA**

- [1788] Kunshan Gao, John Beardall, Donat-P. Häder, Jason M. Hall-Spencer, Guang Gao, and David A. Hutchins. Effects of ocean acidification on marine photosynthetic organisms under the concurrent influences of warming, UV radiation, and deoxygenation. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Yu:2019:AGS**

- [1789] Lingyun Yu, Xiping Zhu, Jianhui Liang, Jiajia Fan, and Chen Chen. Analysis of genetic structure of wild and cultured giant freshwater prawn (*Macrobrachium rosenbergii*) using newly developed microsatellite. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Cocquempot:2019:CON**

- [1790] Lucie Cocquempot, Christophe Delacourt, Jérôme Paillet, Philippe Riou, Jérôme Aucan, Bruno Castelle, Guillaume Charria, Joachim Claudet, Pascal Conan, Laurent Coppola, Régis Hocdé, Serge Planes, Patrick Raimbault, Nicolas Savoye, Laurent Testut, and Renaud Vuillemin. Coastal ocean and nearshore observation: a French case study. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Marrero:2019:CCF**

- [1791] Meghan E. Marrero, Diana L. Payne, and Harry Bredahl. The case for collaboration to foster global ocean literacy. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Harcourt:2019:ABT**

- [1792] Rob Harcourt, Ana M. M. Sequeira, Xuelei Zhang, Fabien Roquet, Kosei Komatsu, Michelle Heupel, Clive McMahon, Fred Whoriskey, Mark Meekan, Gemma Carroll, Stephanie Brodie, Colin Simpfendorfer, Mark Hindell, Ian Jonsen, Daniel P. Costa, Barbara Block, Mônica Muelbert, Bill Woodward, Mike Weise, Kim Aarestrup, Martin Biuw, Lars Boehme, Steven J. Bograd, Dorian Cazau, Jean-Benoit Charrassin, Steven J. Cooke, Paul Cowley, P. J. Nico de Bruyn, Tiphaine Jeanniard du Dot, Carlos Duarte, Víctor M. Eguíluz, Luciana C. Ferreira, Juan Fernández-Gracia, Kimberly Goetz, Yusuke Goto, Christophe Guinet, Mike Hammill, Graeme C. Hays, Elliott L. Hazen, Luis A. Hüeckstädt, Charlie Huveneers, Sara Iverson, Saifullah Arifin Jaaman, Kongkiat Kit-tiwattanawong, Kit M. Kovacs, Christian Lydersen, Tim Moltmann, Masaru Naruoka, Lachlan Phillips, Baptiste Picard, Nuno Queiroz, Gilles

Reverdin, Katsufumi Sato, David W. Sims, Eva B. Thorstad, Michele Thums, Anne M. Treasure, Andrew W. Trites, Guy D. Williams, Yoshinari Yonehara, and Mike A. Fedak. Animal-borne telemetry: an integral component of the ocean observing toolkit. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Gontikaki:2019:NSE**

- [1793] Evangelia Gontikaki and Ursula Witte. No strong evidence of priming effects on the degradation of terrestrial plant detritus in estuarine sediments. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Luskow:2019:SLC**

- [1794] Florian Luskow, Kirstine Kløve-Mogensen, Jakob Tophøj, Lars Haastrup Pedersen, Hans Ulrik Riisgård, and Niels Thomas Eriksen. Seasonality in lipid content of the demosponges *Halichondria panicea* and *H. bowerbanki* at two study sites in temperate Danish waters. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Lough:2019:DHV**

- [1795] Alastair J. M. Lough, Douglas P. Connelly, William B. Homoky, Jeffrey A. Hawkes, Valerie Chavagnac, Alain Castillo, Majid Kazemian, Ko ichi Nakamura, Tohru Araki, Burkhard Kaulich, and Rachel A. Mills. Diffuse hydrothermal venting: a hidden source of iron to the oceans. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Rayner:2019:OOB**

- [1796] Ralph Rayner, Claire Jolly, and Carl Gouldman. Ocean observing and the blue economy. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Armstrong:2019:VBC**

- [1797] Claire W. Armstrong, Naomi S. Foley, Dag Slagstad, Melissa Chierici, Ingrid Ellingsen, and Marit Reigstad. Valuing blue carbon changes in the Arctic Ocean. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**vanderMerwe:2019:HLF**

- [1798] Pier van der Merwe, Kathrin Wuttig, Thomas Holmes, Thomas W. Trull, Zanna Chase, Ashley T. Townsend, Karsten Goemann, and Andrew R. Bowie. High lability Fe particles sourced from glacial erosion can meet previously unaccounted biological demand: Heard Island, Southern Ocean. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Bograd:2019:DSE**

- [1799] Steven J. Bograd, Sukyung Kang, Emanuele Di Lorenzo, Toyomitsu Horii, Oleg N. Katugin, Jackie R. King, Vyacheslav B. Lobanov, Mitsutaku Makino, Guangshui Na, R. Ian Perry, Fangli Qiao, Ryan R. Rykaczewski, Hiroaki Saito, Thomas W. Therriault, Sinjae Yoo, and Hal Batchelder. Developing a social–ecological–environmental system framework to address climate change impacts in the North Pacific. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Adamczak:2019:UMI**

- [1800] S. K. Adamczak, Ann Pabst, W. A. McLellan, and L. H. Thorne. Using 3D models to improve estimates of marine mammal size and external morphology. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Mascarenhas:2019:HDO**

- [1801] Veloisa J. Mascarenhas and Oliver Zielinski. Hydrography-driven optical domains in the Vaigat–Disko Bay and Godthabsfjord: Effects of glacial meltwater discharge. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Newcomer:2019:EPP**

- [1802] Katherine Newcomer, Brianna M. Tracy, Andrew L. Chang, and Gregory M. Ruiz. Evaluating performance of photographs for marine citizen science applications. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Tilbrook:2019:EOA**

- [1803] Bronte Tilbrook, Elizabeth B. Jewett, Michael D. DeGrandpre, Jose Martin Hernandez-Ayon, Richard A. Feely, Dwight K. Gledhill, Lina Hansson, Kirsten Isensee, Meredith L. Kurz, Janet A. Newton, Samantha A. Siedlecki, Fei Chai, Sam Dupont, Michelle Graco, Eva Calvo, Dana Greeley, Lydia Kapsenberg, Marine Lebrech, Carles Pelejero, Katherina L. Schoo, and Maciej Telszewski. An enhanced ocean acidification observing network: From people to technology to data synthesis and information exchange. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Alvarez-Yela:2019:MDE**

- [1804] Astrid Catalina Alvarez-Yela, Jeanneth Mosquera-Rendón, Alejandra Noreña-P, Marco Cristancho, and Diana López-Alvarez. Microbial diversity exploration of marine hosts at Serrana Bank, a coral atoll of the Seaflower Biosphere Reserve. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Silveira:2019:EST**

- [1805] Savênia B. Silveira and Clarisse Odebrecht. Effects of salinity and temperature on the growth, toxin production, and akinete germination of the cyanobacterium *Nodularia spumigena*. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Fielding:2019:EOO**

- [1806] Sarah Fielding, Jonathan T. Copley, and Rachel A. Mills. Exploring our oceans: Using the global classroom to develop ocean literacy. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Anderson:2019:CKP**

- [1807] Giulia Anderson, Monal Lal, John Hampton, Neville Smith, and Ciro Rico. Close kin proximity in yellowfin tuna (*Thunnus albacares*) as a driver of population genetic structure in the tropical Western and Central Pacific Ocean. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**doRosarioGomes:2019:CIL**

- [1808] Helga do Rosario Gomes, Kali McKee, Anxhela Mile, Sharanya Thandapu, Khalid Al-Hashmi, Xiaojian Jiang, and Joaquim I. Goes. Corrigendum: Influence of light availability and prey type on the growth and photo-physiological rates of the mixotroph *Noctiluca scintillans*. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745. See [1305].

**Essock-Burns:2019:HTP**

- [1809] Tara Essock-Burns, Erik J. Soderblom, Beatriz Orihuela, M. Arthur Moseley, and Daniel Rittschof. Hypothesis testing with proteomics: a case study using wound healing mechanisms in fluids associated with barnacle glue. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Joy:2019:PBV**

- [1810] Ruth Joy, Dominic Tollit, Jason Wood, Alexander MacGillivray, Zizheng Li, Krista Trounce, and Orla Robinson. Potential benefits of vessel slow-downs on endangered southern resident killer whales. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Moullec:2019:EEM**

- [1811] Fabien Moullec, Nicolas Barrier, Sabine Drira, François Guilhaumon, Patrick Marsaleix, Samuel Somot, Caroline Ulses, Laure Velez, and Yunne-Jai Shin. An end-to-end model reveals losers and winners in a

warming Mediterranean Sea. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Rivest:2019:MIS**

- [1812] Emily B. Rivest, Brittany Jellison, Gabriel Ng, Erin V. Satterthwaite, Hannah L. Bradley, Susan L. Williams, and Brian Gaylord. Mechanisms involving sensory pathway steps inform impacts of global climate change on ecological processes. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Heenehan:2019:CSS**

- [1813] Heather Heenehan, Joy E. Stanistreet, Peter J. Corkeron, Laurent Bouveret, Julien Chalifour, Genevieve E. Davis, Angiolina Henriquez, Jeremy J. Kiszka, Logan Kline, Caroline Reed, Omar Shamir-Reynoso, Fabien Védie, Wijnand De Wolf, Paul Hoetjes, and Sofie M. Van Parijs. Caribbean Sea soundscapes: Monitoring humpback whales, biological sounds, geological events, and anthropogenic impacts of vessel noise. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Benveniste:2019:RCH**

- [1814] Jérôme Benveniste, Anny Cazenave, Stefano Vignudelli, Luciana Fenoglio-Marc, Rashmi Shah, Rafael Almar, Ole Andersen, Florence Birol, Pascal Bonnefond, Jérôme Bouffard, Francisco Calafat, Estel Cardellach, Paolo Cipollini, Gonéri Le Cozannet, Claire Dufau, Maria Joana Fernandes, Frédéric Frappart, James Garrison, Christine Gommenginger, Guoqi Han, Jacob L. Høyer, Villy Kourafalou, Eric Leuliette, Zhijin Li, Hubert Loisel, Kristine S. Madsen, Marta Marcos, Angélique Melet, Benoît Meyssignac, Ananda Pascual, Marcello Passaro, Serni Ribó, Remko Scharroo, Y. Tony Song, Sabrina Speich, John Wilkin, Philip Woodworth, and Guy Wöppelmann. Requirements for a coastal hazards observing system. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Pecl:2019:RAC**

- [1815] Greta T. Pecl, Jemina Stuart-Smith, Peter Walsh, Dianne J. Bray, Martha Kusetic, Michael Burgess, Stewart D. Frusher, Daniel C. Gledhill, Oliver George, Gary Jackson, John Keane, Victoria Y. Martin, Melissa Nursey-Bray, Andrew Pender, Lucy M. Robinson, Keith Rowling, Marcus Sheaves, and Natalie Moltschanivskyj. Redmap Australia: Challenges and successes with a large-scale citizen science-based approach to ecological monitoring and community engagement on climate change. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Angove:2019:OOR**

- [1816] Michael Angove, Diego Arcas, Rick Bailey, Patricio Carrasco, David Coetzee, Bill Fry, Ken Gledhill, Satoshi Harada, Christa von Hillebrandt-Andrade, Laura Kong, Charles McCreery, Sarah-Jayne McCurrach, Yue-long Miao, Andi Eka Sakya, and François Schindel . Ocean observations required to minimize uncertainty in global tsunami forecasts, warnings, and emergency response. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Taherzadeh:2019:TBF**

- [1817] Niousha Taherzadeh, Michael Bengfort, and Kai W. Wirtz. A trait-based framework for explaining non-additive effects of multiple stressors on plankton communities. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Schmidt:2019:EST**

- [1818] Sabine Schmidt, Iris I. Diallo, Herv  Derriennic, H l ne Fallou, and Mario Lepage. Exploring the susceptibility of turbid estuaries to hypoxia as a prerequisite to designing a pertinent monitoring strategy of dissolved oxygen. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Dusek:2019:WPD**

- [1819] Gregory Dusek, Debra Hernandez, Mark Willis, Jenna A. Brown, Joseph W. Long, Dwayne E. Porter, and Tiffany C. Vance. WebCAT: Piloting the development of a web camera coastal observing network for diverse applications. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Armstrong:2019:IDA**

- [1820] Edward M. Armstrong, Mark A. Bourassa, Thomas A. Cram, Maya DeBellis, Jocelyn Elya, Frank R. Greguska, Thomas Huang, Joseph C. Jacob, Zaihua Ji, Yongyao Jiang, Yun Li, Nga Quach, Lewis McGibbney, Shawn Smith, Vardis M. Tsontos, Brian Wilson, Steven J. Worley, Chaowei Yang, and Elizabeth Yam. An integrated data analytics platform. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Hermes:2019:SOO**

- [1821] J. C. Hermes, Y. Masumoto, L. M. Beal, M. K. Roxy, J. Vialard, M. Andres, H. Annamalai, S. Behera, N. D'Adamo, T. Doi, M. Feng, W. Han, N. Hardman-Mountford, H. Hendon, R. Hood, S. Kido, C. Lee, T. Lee, M. Lengaigne, J. Li, R. Lumpkin, K. N. Navaneeth, B. Milligan, M. J. McPhaden, M. Ravichandran, T. Shinoda, A. Singh, B. Sloyan, P. G.

Strutton, A. C. Subramanian, S. Thurston, T. Tozuka, C. C. Ummenhofer, A. S. Unnikrishnan, R. Venkatesan, D. Wang, J. Wiggert, L. Yu, and W. Yu. A sustained ocean observing system in the Indian Ocean for climate related scientific knowledge and societal needs. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Cross:2019:BKA**

- [1822] Jessica N. Cross, Jessie A. Turner, Sarah R. Cooley, Jan A. Newton, Kumiko Azetsu-Scott, R. Christopher Chambers, Darcy Dugan, Kaitlin Goldsmith, Helen Gurney-Smith, Alexandra R. Harper, Elizabeth B. Jewett, Denise Joy, Teri King, Terrie Klinger, Meredith Kurz, John Morrison, Jackie Motyka, Erica H. Ombres, Grace Saba, Emily L. Silva, Emily Smits, Jennifer Vreeland-Dawson, and Leslie Wickes. Building the knowledge-to-action pipeline in North America: Connecting ocean acidification research and actionable decision support. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Lamontagne:2019:TAE**

- [1823] Sébastien Lamontagne and Ian T. Webster. Theoretical assessment of the effect of vertical dispersivity on coastal seawater radium distribution. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Szuts:2019:SSU**

- [1824] Zoltan B. Szuts, Amy S. Bower, Kathleen A. Donohue, James B. Girton, Julia M. Hummon, Katsuro Katsumata, Rick Lumpkin, Peter B. Ortner, Helen E. Phillips, H. Thomas Rossby, Lynn Keith Shay, Charles Sun, and Robert E. Todd. The scientific and societal uses of global measurements of subsurface velocity. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Yoon:2019:ASB**

- [1825] Joo-Eun Yoon, Jae-Hyun Lim, SeungHyun Son, Seok-Hyun Yoon, Hyun-Ju Oh, Jae-Dong Hwang, Jae-Il Kwon, Seong-Su Kim, and Il-Nam Kim. Assessment of satellite-based chlorophyll-a algorithms in eutrophic Korean coastal waters: Jinhae Bay case study. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Brennan:2019:SDA**

- [1826] Caroline Brennan, Matthew Ashley, and Owen Molloy. A system dynamics approach to increasing ocean literacy. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Babanin:2019:WSH**

- [1827] Alexander V. Babanin, W. Erick Rogers, Ricardo de Camargo, Martin Doble, Tom Durrant, Kirill Filchuk, Kevin Ewans, Mark Hemer, Tim Janssen, Boris Kelly-Gerreyn, Keith Machutchon, Peter McComb, Fangli Qiao, Eric Schulz, Alex Skvortsov, Jim Thomson, Marcello Vichi, Nelson Violante-Carvalho, David Wang, Takuji Waseda, Greg Williams, and Ian R. Young. Waves and swells in high wind and extreme fetches, measurements in the Southern Ocean. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Smith:2019:OSS**

- [1828] Hillary A. Smith, Aurelie Moya, Neal E. Cantin, Madeleine J. H. van Oopen, and Gergely Torda. Observations of simultaneous sperm release and larval planulation suggest reproductive assurance in the coral *Pocillopora acuta*. *Frontiers in Marine Science*, 6, June 2019. ISSN 2296-7745.

**Liu:2019:GAC**

- [1829] Dawei Liu, Baozhi Lin, Selvaraj Kandasamy, Huawei Wang, Qianqian Liu, Wenbin Zou, Aimei Zhu, Jianjun Zou, Jiann-Yuh Lou, and Xuefa Shi. Geochemical appraisal of chemical weathering and metal contamination in coastal surface sediments, off northwest Hainan Island, the Gulf of Tonkin. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Geoffroy:2019:MSS**

- [1830] Maxime Geoffroy, Malin Daase, Marine Cusa, Gérald Darnis, Martin Graeve, Néstor Santana Hernández, Jørgen Berge, Paul E. Renaud, Finlo Cottier, and Stig Falk-Petersen. Mesopelagic sound scattering layers of the High Arctic: Seasonal variations in biomass, species assemblage, and trophic relationships. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Pulcinella:2019:BLT**

- [1831] Jacopo Pulcinella, Sara Bonanomi, Alessandro Colombelli, Caterina Maria Fortuna, Fabrizio Moro, Alessandro Lucchetti, and Antonello Sala. Bycatch of loggerhead turtle (*Caretta caretta*) in the Italian Adriatic midwater pair trawl fishery. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Johnstone:2019:FCM**

- [1832] Mary Beth Johnstone, A. P. Wheeler, Elizabeth P. Falwell, Meg E. Staton, Christopher A. Sasaki, and Andrew S. Mount. Folian-cv1 is a member of a highly acidic phosphoprotein class derived from the foliated layer of



the eastern oyster (*Crassostrea virginica*) shell and identified in hemocytes and mantle. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Canonico:2019:GON**

- [1833] Gabrielle Canonico, Pier Luigi Buttigieg, Enrique Montes, Frank E. Muller-Karger, Carol Stepien, Dawn Wright, Abigail Benson, Brian Helmut, Mark Costello, Isabel Sousa-Pinto, Hanieh Saeedi, Jan Newton, Ward Appeltans, Nina Bednaršek, Levente Bodrossy, Benjamin D. Best, Angelika Brandt, Kelly D. Goodwin, Katrin Iken, Antonio C. Marques, Patricia Miloslavich, Martin Ostrowski, Woody Turner, Eric P. Achterberg, Tom Barry, Omar Defeo, Gregorio Bigatti, Lea-Anne Henry, Berta Ramiro-Sánchez, Pablo Durán, Telmo Morato, J. Murray Roberts, Ana García-Alegre, Mar Sacau Cuadrado, and Bramley Murton. Global observational needs and resources for marine biodiversity. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Lie:2019:OCO**

- [1834] Kai K. Lie, Sonnich Meier, Elin Sørhus, Rolf B. Edvardsen, Ørjan Karlsen, and Pål A. Olsvik. Offshore crude oil disrupts retinoid signaling and eye development in larval Atlantic haddock. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Weber:2019:IIH**

- [1835] Charlotte Teresa Weber, Melania Borit, and Michaela Aschan. An interdisciplinary insight into the human dimension in fisheries models. A systematic literature review in a European Union context. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**vanBeusekom:2019:WSE**

- [1836] Justus E. E. van Beusekom, Jacob Carstensen, Tobias Dolch, Annika Grage, Richard Hofmeister, Hermann Lenhart, Onur Kerimoglu, Kerstin Kolbe, Johannes Pätsch, Johannes Rick, Lena Rönn, and Hans Ruiters. Wadden Sea eutrophication: Long-term trends and regional differences. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Hestetun:2019:DSC**

- [1837] Jon Thomassen Hestetun, Hans Tore Rapp, and Shirley Pomponi. Deep-sea carnivorous sponges from the Mariana Islands. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Tilstra:2019:RDA**

- [1838] Arjen Tilstra, Claudia Pogoreutz, Nils Rådecker, Maren Ziegler, Christian Wild, and Christian R. Voolstra. Relative diazotroph abundance

in symbiotic Red Sea corals decreases with water depth. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Yamahara:2019:SAA**

- [1839] Kevan M. Yamahara, Christina M. Preston, James Birch, Kristine Walz, Roman Marin, Scott Jensen, Douglas Pargett, Brent Roman, William Ussler, Yanwu Zhang, John Ryan, Brett Hobson, Brian Kieft, Ben Raanan, Kelly D. Goodwin, Francisco P. Chavez, and Christopher Scholin. In situ autonomous acquisition and preservation of marine environmental DNA using an autonomous underwater vehicle. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Baker:2019:SSP**

- [1840] Krista D. Baker, Paul V. R. Snelgrove, David A. Fifield, Evan N. Edinger, Vonda E. Wareham, Richard L. Haedrich, and Kent D. Gilkinson. Small-scale patterns in the distribution and condition of bamboo coral, *Keratoisis grayi*, in submarine canyons on the Grand Banks, Newfoundland. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Krause-Jensen:2019:DPK**

- [1841] Dorte Krause-Jensen, Mikael K. Sejr, Annette Bruhn, Michael B. Rasmussen, Peter Bondo Christensen, Jørgen L. S. Hansen, Carlos M. Duarte, Grethe Bruntse, and Susse Wegeberg. Deep penetration of kelps offshore along the West Coast of Greenland. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Fonseca:2019:ESC**

- [1842] Mark S. Fonseca, James W. Fourqurean, and M. A. R. Koehl. Effect of seagrass on current speed: Importance of flexibility vs. shoot density. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Regoli:2019:AWE**

- [1843] Francesco Regoli, Giuseppe d'Errico, Alessandro Nardi, Marica Mezzelani, Daniele Fattorini, Maura Benedetti, Marta Di Carlo, David Pellegrini, and Stefania Gorbi. Application of a weight of evidence approach for monitoring complex environmental scenarios: the case-study of offshore platforms. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Humphries:2019:CCS**

- [1844] Austin T. Humphries, Kelvin D. Gorospe, Paul G. Carvalho, Irfan Yulianto, Tasrif Kartawijaya, and Stuart J. Campbell. Catch composition

and selectivity of fishing gears in a multi-species Indonesian coral reef fishery. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Arregui:2019:FES**

- [1845] Marina Arregui, Yara Bernaldo de Quirós, Pedro Saavedra, Eva Sierra, Cristian M. Suárez-Santana, Manuel Arbelo, Josué Díaz-Delgado, Raquel Puig-Lozano, Marisa Andrada, and Antonio Fernández. Fat embolism and sperm whale ship strikes. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Lockerbie:2019:TEP**

- [1846] Emma M. Lockerbie and Lynne Shannon. Toward exploring possible future states of the Southern Benguela. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Linse:2019:NVL**

- [1847] Katrin Linse, Christopher Nicolai Roterman, and Chong Chen. A new vent limpet in the genus *Lepetodrilus* (Gastropoda: Lepetodrilidae) from Southern Ocean hydrothermal vent fields showing high phenotypic plasticity. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Baker:2019:LBW**

- [1848] Edward T. Baker, Sharon L. Walker, Gary J. Massoth, and Joseph A. Resing. The NE Lau Basin: Widespread and abundant hydrothermal venting in the back-arc region behind a superfast subduction zone. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Woodworth-Jefcoats:2019:RIS**

- [1849] Phoebe A. Woodworth-Jefcoats, Julia L. Blanchard, and Jeffrey C. Drazen. Relative impacts of simultaneous stressors on a pelagic marine ecosystem. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**DellaPenna:2019:OSM**

- [1850] Alice Della Penna and Peter Gaube. Overview of (sub)mesoscale ocean dynamics for the NAAMES field program. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Queiros:2019:FSS**

- [1851] Quentin Queiros, Jean-Marc Fromentin, Eric Gasset, Gilbert Dutto, Camille Huiban, Luisa Metral, Lina Leclerc, Quentin Schull, David J. McKenzie, and Claire Saraux. Food in the sea: Size also matters for pelagic fish. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Fagan:2019:REC**

- [1852] Adam J. Fagan, Allison R. Moreno, and Adam C. Martiny. Role of ENSO conditions on particulate organic matter concentrations and elemental ratios in the Southern California Bight. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Lucchetti:2019:RST**

- [1853] Alessandro Lucchetti, Giada Bargione, Andrea Petetta, Claudio Vasapollo, and Massimo Virgili. Reducing sea turtle bycatch in the Mediterranean mixed demersal fisheries. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Giddens:2019:PBD**

- [1854] Jonatha Giddens, Whitney Goodell, Alan Friedlander, Pelayo Salinas de León, Charles Shepard, Brad Henning, Eric Berkenpas, Enric Sala, and Alan Turchik. Patterns in bathyal demersal biodiversity and community composition around archipelagos in the tropical Eastern Pacific. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Stefanelli-Silva:2019:UEI**

- [1855] Gabriel Stefanelli-Silva, Juan C. F. Pardo, Paulo Paixão, and Tânia M. Costa. University extension and informal education: Useful tools for bottom-up ocean and coastal literacy of primary school children in Brazil. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Darmanin:2019:FCM**

- [1856] Sandra Agius Darmanin and Adriana Vella. First Central Mediterranean scientific field study on recreational fishing targeting the ecosystem approach to sustainability. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Penny:2019:ONI**

- [1857] Stephen G. Penny, Santha Akella, Magdalena A. Balmaseda, Philip Browne, James A. Carton, Matthieu Chevallier, Francois Counillon, Catia Domingues, Sergey Frolov, Patrick Heimbach, Patrick Hogan, Ibrahim Hoteit, Doroteaciro Iovino, Patrick Laloyaux, Matthew J. Martin, Simona Masina, Andrew M. Moore, Patricia de Rosnay, Dinand Schepers, Bernadette M. Sloyan, Andrea Storto, Aneesh Subramanian, SungHyun Nam, Frederic Vitart, Chunxue Yang, Yosuke Fujii, Hao Zuo, Terry O’Kane, Paul Sandery, Thomas Moore, and Christopher C. Chapman. Observational needs for improving ocean and coupled reanalysis, S2S prediction, and decadal prediction. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Tilley:2019:EFC**

- [1858] Alexander Tilley, Kimberley J. Hunnam, David J. Mills, Dirk J. Steenbergen, Hugh Govan, Enrique Alonso-Poblacion, Matthew Roscher, Mario Pereira, Pedro Rodrigues, Teresa Amador, Agustinha Duarte, Mario Gomes, and Philippa J. Cohen. Evaluating the fit of co-management for small-scale fisheries governance in Timor-Leste. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Benway:2019:OTS**

- [1859] Heather M. Benway, Laura Lorenzoni, Angelicque E. White, Björn Fiedler, Naomi M. Levine, David P. Nicholson, Michael D. DeGrandpre, Heidi M. Sosik, Matthew J. Church, Todd D. O'Brien, Margaret Leinen, Robert A. Weller, David M. Karl, Stephanie A. Henson, and Ricardo M. Letelier. Ocean time series observations of changing marine ecosystems: an era of integration, synthesis, and societal applications. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Hoarfrost:2019:GSR**

- [1860] Adrienne Hoarfrost, John Paul Balmonte, Sherif Ghobrial, Kai Ziervogel, John Bane, Glen Gawarkiewicz, and Carol Arnosti. Gulf Stream ring water intrusion on the Mid-Atlantic Bight Continental Shelf break affects microbially driven carbon cycling. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Bax:2019:RSS**

- [1861] Nicholas J. Bax, Patricia Miloslavich, Frank Edgar Muller-Karger, Valerie Allain, Ward Appeltans, Sonia Dawn Batten, Lisandro Benedetti-Cecchi, Pier Luigi Buttigieg, Sanae Chiba, Daniel Paul Costa, J. Emmett Duffy, Daniel C. Dunn, Craig Richard Johnson, Raphael M. Kudela, David Obura, Lisa-Maria Rebelo, Yunne-Jai Shin, Samantha Elisabeth Simmons, and Peter Lloyd Tyack. A response to scientific and societal needs for marine biological observations. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745. See [2106].

**Mogias:2019:EOL**

- [1862] Athanasios Mogias, Theodora Boubonari, Giulia Realdon, Monica Previati, Melita Mocos, Panayota Koulouri, and Maria Th. Cheimonopoulou. Evaluating ocean literacy of elementary school students: Preliminary results of a cross-cultural study in the Mediterranean region. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Stukel:2019:RSF**

- [1863] Michael R. Stukel, Mark D. Ohman, Thomas B. Kelly, and Tristan Biard. The roles of suspension-feeding and flux-feeding zooplankton as gatekeepers of particle flux into the Mesopelagic Ocean in the Northeast Pacific. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Rooker:2019:WRT**

- [1864] Jay R. Rooker, Igaratza Fraile, Hui Liu, Nouredine Abid, Michael A. Dance, Tomoyuki Itoh, Ai Kimoto, Yohei Tsukahara, Enrique Rodriguez-Marin, and Haritz Arrizabalaga. Wide-ranging temporal variation in transoceanic movement and population mixing of bluefin tuna in the North Atlantic Ocean. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Stauffer:2019:CHA**

- [1865] Beth A. Stauffer, Holly A. Bowers, Earle Buckley, Timothy W. Davis, Thomas H. Johengen, Raphael Kudela, Margaret A. McManus, Heidi Purcell, G. Jason Smith, Andrea Vander Woude, and Mario N. Tamburri. Considerations in harmful algal bloom research and monitoring: Perspectives from a consensus-building workshop and technology testing. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Wanninkhof:2019:SOC**

- [1866] Rik Wanninkhof, Penelope A. Pickers, Abdirahman M. Omar, Adrienne Sutton, Akihiko Murata, Are Olsen, Britton B. Stephens, Bronte Tilbrook, David Munro, Denis Pierrot, Gregor Rehder, J. Magdalena Santana-Casiano, Jens D. Müller, Joaquin Trinanes, Kathy Tedesco, Kevin O'Brien, Kim Currie, Leticia Barbero, Maciej Telszewski, Mario Hoppema, Masao Ishii, Melchor González-Dávila, Nicholas R. Bates, Nicolas Metzl, Parvatha Suntharalingam, Richard A. Feely, Shin ichiro Nakaoka, Siv K. Lauvset, Taro Takahashi, Tobias Steinhoff, and Ute Schuster. A surface ocean CO<sub>2</sub> reference network, SOCONET and associated marine boundary layer CO<sub>2</sub> measurements. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Ashford:2019:IVM**

- [1867] Oliver S. Ashford, Andrew J. Kenny, Christopher R. S. Barrio Froján, Anna-Leena Downie, Tammy Horton, and Alex D. Rogers. On the influence of vulnerable marine ecosystem habitats on peracarid crustacean assemblages in the northwest Atlantic fisheries organisation regulatory area. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Veazey:2019:PDD**

- [1868] Lindsay Veazey, Olivia Williams, Rachael Wade, Robert Toonen, and Heather L. Spalding. Present-day distribution and potential spread of the invasive green alga *Avrainvillea amadelpha* around the main Hawaiian Islands. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Vecchione:2019:ROR**

- [1869] Michael Vecchione. ROV observations on reproduction by deep-sea cephalopods in the Central Pacific Ocean. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Nichols:2019:CSE**

- [1870] C. Reid Nichols, Lynn D. Wright, Scott J. Bainbridge, Arthur Cosby, Alain Hénaff, Jon D. Loftis, Lucie Cocquempot, Sridhar Katragadda, Gina R. Mendez, Pauline Letortu, Nicolas Le Dantec, Donald Resio, and Gary Zarillo. Collaborative science to enhance coastal resilience and adaptation. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Hewson:2019:PSO**

- [1871] Ian Hewson, Brooke Sullivan, Elliot W. Jackson, Qiang Xu, Hao Long, Chenggang Lin, Eva Marie Quijano Cardé, Justin Seymour, Nachshon Siboni, Matthew R. L. Jones, and Mary A. Sewell. Perspective: Something old, something new? Review of wasting and other mortality in *Asteroidea* (Echinodermata). *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Smith:2019:STB**

- [1872] Kimberley A. Smith, Christopher E. Dowling, and Joshua Brown. Simmered then boiled: Multi-decadal poleward shift in distribution by a temperate fish accelerates during marine heatwave. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Mahadik:2019:DCH**

- [1873] Gauri A. Mahadik, Susana Agusti, and Carlos M. Duarte. Distribution and characteristics of *Halobates germanus* population in the Red Sea. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Rullens:2019:EMU**

- [1874] Vera Rullens, Andrew M. Lohrer, Michael Townsend, and Conrad A. Pilditch. Ecological mechanisms underpinning ecosystem service bundles in marine environments — a case study for shellfish. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Pinardi:2019:JIU**

- [1875] Nadia Pinardi, Johan Stander, David M. Legler, Kevin O'Brien, Tim Boyer, Tom Cuff, Pierre Bahurel, Mathieu Belbeoch, Sergey Belov, Shelby Brunner, Eugene Burger, Thierry Carval, Denis Chang-Seng, Etienne Charpentier, S. Ciliberti, Giovanni Coppini, Albert Fischer, Eric Freeman, Champika Gallage, Hernan Garcia, Lydia Gates, Zhiqiang Gong, Juliet Hermes, Emma Heslop, Sarah Grimes, Katherine Hill, Kevin Horsburgh, Athanasia Iona, Sebastien Mancini, Neal Moodie, Mathieu Ouellet, Peter Pissierssens, Paul Poli, Roger Proctor, Neville Smith, Charles Sun, Val Swail, Jonathan Turton, and Yue Xinyang. The joint IOC (of UNESCO) and WMO collaborative effort for met-ocean services. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Babcock:2019:SCS**

- [1876] Russell C. Babcock, Rodrigo H. Bustamante, Elizabeth A. Fulton, Derek J. Fulton, Michael D. E. Haywood, Alistair James Hobday, Robert Kenyon, Richard James Matear, Eva E. Plagányi, Anthony J. Richardson, and Mathew A. Vanderklift. Severe continental-scale impacts of climate change are happening now: Extreme climate events impact marine habitat forming communities along 45 of Australia's coast. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745. See corrigendum [2022].

**Seifert:2019:IGM**

- [1877] Miriam Seifert, Mario Hoppema, Claudia Burau, Cassandra Elmer, Anna Friedrichs, Jana K. Geuer, Uwe John, Torsten Kanzow, Boris P. Koch, Christian Konrad, Helga van der Jagt, Oliver Zielinski, and Morten H. Iversen. Influence of glacial meltwater on summer biogeochemical cycles in Scoresby Sund, East Greenland. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Cavanaugh:2019:SVR**

- [1878] Kyle C. Cavanaugh, Daniel C. Reed, Tom W. Bell, Max C. N. Castorani, and Rodrigo Beas-Luna. Spatial variability in the resistance and resilience of giant kelp in Southern and Baja California to a multiyear heatwave. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Eisemann:2019:EAG**

- [1879] Ángela Randazzo Eisemann, Jorge Luis Montero Muñoz, Melanie McField, Jenny Myton, and Jesús Ernesto Arias-González. The effect of algal-gardening damselfish on the resilience of the Mesoamerican Reef. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.



**Zhang:2019:TSA**

- [1880] Yanwu Zhang, John P. Ryan, Brian Kieft, Brett W. Hobson, Robert S. McEwen, Michael A. Godin, Julio B. Harvey, Benedetto Barone, James G. Bellingham, James M. Birch, Christopher A. Scholin, and Francisco P. Chavez. Targeted sampling by autonomous underwater vehicles. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Palmer:2019:AOO**

- [1881] Matthew D. Palmer, Paul J. Durack, Maria Paz Chidichimo, John A. Church, Sophie Cravatte, Katy Hill, Johnny A. Johannessen, Johannes Karstensen, Tong Lee, David Legler, Matt Mazloff, Eitarou Oka, Sarah Purkey, Ben Rabe, Jean-Baptiste Sallée, Bernadette M. Sloyan, Sabrina Speich, Karina von Schuckmann, Josh Willis, and Susan Wijffels. Adequacy of the ocean observation system for quantifying regional heat and freshwater storage and change. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Fujii:2019:OSE**

- [1882] Yosuke Fujii, Elisabeth Rémy, Hao Zuo, Peter Oke, George Halliwell, Florent Gasparin, Mounir Benkiran, Nora Loose, James Cummings, Jiping Xie, Yan Xue, Shuhei Masuda, Gregory C. Smith, Magdalena Balmaseda, Cyril Germaineaud, Daniel J. Lea, Gilles Larnicol, Laurent Bertino, Antonio Bonaduce, Pierre Brasseur, Craig Donlon, Patrick Heimbach, YoungHo Kim, Villy Kourafalou, Pierre-Yves Le Traon, Matthew Martin, Shastri Paturi, Benoit Tranchant, and Norihisa Usui. Observing system evaluation based on ocean data assimilation and prediction systems: On-going challenges and a future vision for designing and supporting ocean observational networks. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Storto:2019:ORR**

- [1883] Andrea Storto, Aida Alvera-Azcárate, Magdalena A. Balmaseda, Alexander Barth, Matthieu Chevallier, Francois Counillon, Catia M. Domingues, Marie Drevillon, Yann Drillet, Gaël Forget, Gilles Garric, Keith Haines, Fabrice Hernandez, Doroteaciro Iovino, Laura C. Jackson, Jean-Michel Lellouche, Simona Masina, Michael Mayer, Peter R. Oke, Stephen G. Penny, K. Andrew Peterson, Chunxue Yang, and Hao Zuo. Ocean reanalyses: Recent advances and unsolved challenges. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Centurioni:2019:GSO**

- [1884] Luca R. Centurioni, Jon Turton, Rick Lumpkin, Lancelot Braasch, Gary Brassington, Yi Chao, Etienne Charpentier, Zhaohui Chen, Gary

Corlett, Kathleen Dohan, Craig Donlon, Champika Gallage, Verena Hormann, Alexander Ignatov, Bruce Ingleby, Robert Jensen, Boris A. Kelly-Gerreyn, Inga M. Koszalka, Xiaopei Lin, Eric Lindstrom, Nikolai Maximenko, Christopher J. Merchant, Peter Minnett, Anne O'Carroll, Theresa Paluszkiwicz, Paul Poli, Pierre-Marie Poulain, Gilles Reverdin, Xiujun Sun, Val Swail, Sidney Thurston, Lixin Wu, Lisan Yu, Bin Wang, and Dongxiao Zhang. Global in situ observations of essential climate and ocean variables at the air–sea interface. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**O'Carroll:2019:ONS**

- [1885] Anne G. O'Carroll, Edward M. Armstrong, Helen M. Beggs, Marouan Bouali, Kenneth S. Casey, Gary K. Corlett, Prasanjit Dash, Craig J. Donlon, Chelle L. Gentemann, Jacob L. Høyer, Alexander Ignatov, Kamila Kabobah, Misako Kachi, Yukio Kurihara, Ioanna Karagali, Eileen Maturi, Christopher J. Merchant, Salvatore Marullo, Peter J. Minnett, Matthew Pennybacker, Balaji Ramakrishnan, RAAJ Ramsankaran, Rosalia Santoleri, Swathy Sunder, Stéphane Saux Picart, Jorge Vázquez-Cuervo, and Werenfrid Wimmer. Observational needs of sea surface temperature. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Swart:2019:CSO**

- [1886] Sebastiaan Swart, Sarah T. Gille, Bruno Delille, Simon Josey, Matthew Mazloff, Louise Newman, Andrew F. Thompson, Jim Thomson, Brian Ward, Marcel D. du Plessis, Elizabeth C. Kent, James Girton, Luke Gregor, Petra Heil, Patrick Hyder, Luciano Ponzi Pezzi, Ronald Buss de Souza, Veronica Tamsitt, Robert A. Weller, and Christopher J. Zappa. Constraining Southern Ocean air–sea–ice fluxes through enhanced observations. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Testor:2019:OCI**

- [1887] Pierre Testor, Brad de Young, Daniel L. Rudnick, Scott Glenn, Daniel Hayes, Craig M. Lee, Charitha Pattiaratchi, Katherine Hill, Emma Heslop, Victor Turpin, Pekka Alenius, Carlos Barrera, John A. Barth, Nicholas Beaird, Guislain Bécu, Anthony Bosse, François Bourrin, J. Alexander Brearley, Yi Chao, Sue Chen, Jacopo Chiggiato, Laurent Coppola, Richard Crout, James Cummings, Beth Curry, Ruth Curry, Richard Davis, Kruti Desai, Steve DiMarco, Catherine Edwards, Sophie Fielding, Ilker Fer, Eleanor Frajka-Williams, Hezi Gildor, Gustavo Goni, Dimitri Gutierrez, Peter Haugan, David Hebert, Joleen Heiderich, Stephanie Henson, Karen Heywood, Patrick Hogan, Loïc Houpert, Sik Huh, Mark E. Inall, Masso Ishii, Shin ichi Ito, Sachihiko Itoh, Sen

Jan, Jan Kaiser, Johannes Karstensen, Barbara Kirkpatrick, Jody Klymak, Josh Kohut, Gerd Krahnemann, Marjolaine Krug, Sam McClatchie, Frédéric Marin, Elena Mauri, Avichal Mehra, Michael P. Meredith, Thomas Meunier, Travis Miles, Julio M. Morell, Laurent Mortier, Sarah Nicholson, Joanne O’Callaghan, Diarmuid O’Conchubhair, Peter Oke, Enric Pallàs-Sanz, Matthew Palmer, JongJin Park, Leonidas Perivoliotis, Pierre-Marie Poulain, Ruth Perry, Bastien Queste, Luc Rainville, Eric Rehm, Moninya Roughan, Nicholas Rome, Tetjana Ross, Simon Ruiz, Grace Saba, Amandine Schaeffer, Martha Schönau, Katrin Schroeder, Yugo Shimizu, Bernadette M. Sloyan, David Smeed, Derrick Snowden, Yumi Song, Sebastian Swart, Miguel Tenreiro, Andrew Thompson, Joaquin Tintore, Robert E. Todd, Cesar Toro, Hugh Venables, Taku Wagawa, Stephanie Waterman, Roy A. Watlington, and Doug Wilson. OceanGliders: a component of the integrated GOOS. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745. See corrigendum [2215].

**Todd:2019:GPO**

- [1888] Robert E. Todd, Francisco P. Chavez, Sophie Clayton, Sophie Cravatte, Marlos Goes, Michelle Graco, Xiaopei Lin, Janet Sprintall, Nathalie V. Zilberman, Matthew Archer, Javier Arístegui, Magdalena Balmaseda, John M. Bane, Molly O. Baringer, John A. Barth, Lisa M. Beal, Peter Brandt, Paulo H. R. Calil, Edmo Campos, Luca R. Centurioni, Maria Paz Chidichimo, Mauro Cirano, Meghan F. Cronin, Enrique N. Curchitser, Russ E. Davis, Marcus Dengler, Brad deYoung, Shenfu Dong, Ruben Escribano, Andrea J. Fassbender, Sarah E. Fawcett, Ming Feng, Gustavo J. Goni, Alison R. Gray, Dimitri Gutiérrez, Dave Hebert, Rebecca Hummels, Shin ichi Ito, Marjorlaine Krug, François Lacan, Lucas Laurindo, Alban Lazar, Craig M. Lee, Matthieu Lengaigne, Naomi M. Levine, John Middleton, Ivonne Montes, Mike Muglia, Takeyoshi Nagai, Hilary I. Palevsky, Jaime B. Palter, Helen E. Phillips, Alberto Piola, Albert J. Plueddemann, Bo Qiu, Regina R. Rodrigues, Moninya Roughan, Daniel L. Rudnick, Ryan R. Rykaczewski, Martin Saraceno, Harvey Seim, Alex Sen Gupta, Lynne Shannon, Bernadette M. Sloyan, Adrienne J. Sutton, LuAnne Thompson, Anja K. van der Plas, Denis Volkov, John Wilkin, Dongxiao Zhang, and Linlin Zhang. Global perspectives on observing ocean boundary current systems. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Howe:2019:SCO**

- [1889] Bruce M. Howe, Brian K. Arbic, Jérôme Aucan, Christopher R. Barnes, Nigel Bayliff, Nathan Becker, Rhett Butler, Laurie Doyle, Shane Elipot, Gregory C. Johnson, Felix Landerer, Stephen Lentz, Douglas S. Luther, Malte Müller, John Mariano, Kate Panayotou, Charlotte Rowe, Hiroshi

Ota, Y. Tony Song, Maik Thomas, Preston N. Thomas, Philip Thompson, Frederik Tilmann, Tobias Weber, and Stuart Weinstein. SMART cables for observing the global ocean: Science and implementation. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Boas:2019:IOG**

- [1890] Ana B. Villas Bôas, Fabrice Ardhuin, Alex Ayet, Mark A. Bourassa, Peter Brandt, Bertrand Chapron, Bruce D. Cornuelle, J. T. Farrar, Melanie R. Fewings, Baylor Fox-Kemper, Sarah T. Gille, Christine Gommenginger, Patrick Heimbach, Momme C. Hell, Qing Li, Matthew R. Mazloff, Sophia T. Merrifield, Alexis Mouche, Marie H. Rio, Ernesto Rodriguez, Jamie D. Shutler, Aneesh C. Subramanian, Eric J. Terrill, Michel Tsamados, Clement Ubelmann, and Erik van Sebille. Integrated observations of global surface winds, currents, and waves: Requirements and challenges for the next decade. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Howe:2019:OOA**

- [1891] Bruce M. Howe, Jennifer Miksis-Olds, Eric Rehm, Hanne Sagen, Peter F. Worcester, and Georgios Haralabus. Observing the oceans acoustically. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Subramanian:2019:OOI**

- [1892] Aneesh C. Subramanian, Magdalena A. Balmaseda, Luca Centurioni, Rajib Chattopadhyay, Bruce D. Cornuelle, Charlotte DeMott, Maria Flatau, Yosuke Fujii, Donata Giglio, Sarah T. Gille, Thomas M. Hamill, Harry Hendon, Ibrahim Hoteit, Arun Kumar, Jae-Hak Lee, Andrew J. Lucas, Amala Mahadevan, Mio Matsueda, SungHyun Nam, Shastri Paturi, Stephen G. Penny, Adam Rydbeck, Rui Sun, Yuhei Takaya, Amit Tandon, Robert E. Todd, Frederic Vitart, Dongliang Yuan, and Chidong Zhang. Ocean observations to improve our understanding, modeling, and forecasting of subseasonal-to-seasonal variability. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**deYoung:2019:IAA**

- [1893] Brad deYoung, Martin Visbeck, Moacyr Cunha de Araujo Filho, Molly O'Neil Baringer, CarolAnne Black, Erik Buch, Gabrielle Canonico, Paulo Coelho, Janice T. Duha, Martin Edwards, Albert Fischer, Jan-Stefan Fritz, Sandra Ketelhake, Jose-Henrique Muelbert, Pedro Monteiro, Glenn Nolan, Eleanor O'Rourke, Michael Ott, Pierre Y. Le Traon, Sylvie Pouliquen, Isabel Sousa-Pinto, Toste Tanhua, Filomena V. Velho, and Zdenka Willis. An integrated All-Atlantic Ocean Observing System in 2030. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Smith:2019:POO**

- [1894] Gregory C. Smith, Richard Allard, Marcel Babin, Laurent Bertino, Matthieu Chevallier, Gary Corlett, Julia Crout, Fraser Davidson, Bruno Delille, Sarah T. Gille, David Hebert, Patrick Hyder, Janet Intrieri, José Lagunas, Gilles Larnicol, Thomas Kaminski, Belinda Kater, Frank Kauker, Claudie Marec, Matthew Mazloff, E. Joseph Metzger, Calvin Mordy, Anne O'Carroll, Steffen M. Olsen, Michael Phelps, Pamela Posey, Pierre Prandi, Eric Rehm, Phillip Reid, Ignatius Rigor, Stein Sandven, Matthew Shupe, Sebastiaan Swart, Ole Martin Smedstad, Amy Solomon, Andrea Storto, Pierre Thibaut, John Toole, Kevin Wood, Jiping Xie, Qinghua Yang, and the WWRP PPP Steering Group. Polar ocean observations: a critical gap in the observing system and its effect on environmental predictions from hours to a season. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Cronin:2019:ASF**

- [1895] Meghan F. Cronin, Chelle L. Gentemann, James Edson, Iwao Ueki, Mark Bourassa, Shannon Brown, Carol Anne Clayson, Chris W. Fairall, J. Thomas Farrar, Sarah T. Gille, Sergey Gulev, Simon A. Josey, Seiji Kato, Masaki Katsumata, Elizabeth Kent, Marjolaine Krug, Peter J. Minnett, Rhys Parfitt, Rachel T. Pinker, Paul W. Stackhouse, Sebastiaan Swart, Hiroyuki Tomita, Douglas Vandemark, A. Robert Weller, Kunio Yoneyama, Lisan Yu, and Dongxiao Zhang. Air-sea fluxes with a focus on heat and momentum. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Stewart:2019:DCI**

- [1896] Andrew Stewart, Brad deYoung, Mike Smit, Karen Donaldson, Alexa Reedman, Andréane Bastien, Ray Brunsting, Bill Carter, Brad Covey, Richard Kelly, Eric Peterson, Benoît Pirenne, Ariane Plourde, Anne-Sophie Ste-Marie, Cristina Tollefsen, Douglas Wallace, and Fred Whoriskey. The development of a Canadian Integrated Ocean Observing System (CIOOS). *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Meyssignac:2019:MGO**

- [1897] Benoit Meyssignac, Tim Boyer, Zhongxiang Zhao, Maria Z. Hakuba, Felix W. Landerer, Detlef Stammer, Armin Köhl, Seiji Kato, Tristan L'Ecuyer, Michael Ablain, John Patrick Abraham, Alejandro Blazquez, Anny Cazenave, John A. Church, Rebecca Cowley, Lijing Cheng, Cattia M. Domingues, Donata Giglio, Viktor Gouretski, Masayoshi Ishii, Gregory C. Johnson, Rachel E. Killick, David Legler, William Llovel, John Lyman, Matthew Dudley Palmer, Steve Piotrowicz, Sarah G.

Purkey, Dean Roemmich, Rémy Roca, Abhishek Savita, Karina von Schuckmann, Sabrina Speich, Graeme Stephens, Gongjie Wang, Susan Elisabeth Wijffels, and Nathalie Zilberman. Measuring global ocean heat content to estimate the earth energy imbalance. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Newman:2019:DSC**

- [1898] Louise Newman, Petra Heil, Rowan Trebilco, Katsuro Katsumata, Andrew Constable, Esmee van Wijk, Karen Assmann, Joana Beja, Phillippa Bricher, Richard Coleman, Daniel Costa, Steve Diggs, Riccardo Farneti, Sarah Fawcett, Sarah T. Gille, Katharine R. Hendry, Sian Henley, Eileen Hofmann, Ted Maksym, Matthew Mazloff, Andrew Meijers, Michael M. Meredith, Sebastien Moreau, Burcu Ozsoy, Robin Robertson, Irene Schloss, Oscar Schofield, Jiuxin Shi, Elisabeth Sikes, Inga J. Smith, Sebastiaan Swart, Anna Wahlin, Guy Williams, Michael J. M. Williams, Laura Herraiz-Borreguero, Stefan Kern, Jan Lieser, Robert A. Massom, Jessica Melbourne-Thomas, Patricia Miloslavich, and Gunnar Spreen. Delivering sustained, coordinated, and integrated observations of the Southern Ocean for global impact. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Smith:2019:SBC**

- [1899] Shawn R. Smith, Gaël Alory, Axel Andersson, William Asher, Alex Baker, David I. Berry, Kyla Drushka, Darin Figurskey, Eric Freeman, Paul Holthus, Tim Jickells, Henry Kleta, Elizabeth C. Kent, Nicolas Kolodziejczyk, Martin Kramp, Zoe Loh, Paul Poli, Ute Schuster, Emma Steventon, Sebastiaan Swart, Oksana Tarasova, Loic Petit de la Villéon, and Nadya Vinogradova-Shiffer. Ship-based contributions to global ocean, weather, and climate observing systems. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Freeman:2019:ICO**

- [1900] Eric Freeman, Elizabeth C. Kent, Philip Brohan, Thomas Cram, Lydia Gates, Boyin Huang, Chunying Liu, Shawn R. Smith, Steven J. Worley, and Huai-Min Zhang. The international comprehensive ocean-atmosphere data set — meeting users needs and future priorities. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**DeMey-Fremaux:2019:MOS**

- [1901] Pierre De Mey-Frémaux, Nadia Ayoub, Alexander Barth, Robert Brewin, Guillaume Charria, Francisco Campuzano, Stefano Ciavatta, Mauro Cirano, Christopher A. Edwards, Ivan Federico, Shan Gao, Isabel Garcia Hermosa, Marcos Garcia Sotillo, Helene Hewitt, Lars Robert Hole,

Jason Holt, Robert King, Villy Kourafalou, Youyu Lu, Baptiste Murre, Ananda Pascual, Joanna Staneva, Emil V. Stanev, Hui Wang, and Xueming Zhu. Model-observations synergy in the coastal ocean. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Ponte:2019:TCO**

- [1902] Rui M. Ponte, Mark Carson, Mauro Cirano, Catia M. Domingues, Svetlana Jevrejeva, Marta Marcos, Gary Mitchum, R. S. W. van de Wal, Philip L. Woodworth, Michaël Ablain, Fabrice Ardhuin, Valérie Ballu, Mélanie Becker, Jérôme Benveniste, Florence Birol, Elizabeth Bradshaw, Anny Cazenave, P. De Mey-Frémaux, Fabien Durand, Tal Ezer, Lee-Lueng Fu, Ichiro Fukumori, Kathy Gordon, Médéric Gravelle, Stephen M. Griffies, Weiqing Han, Angela Hibbert, Chris W. Hughes, Déborah Idier, Villy H. Kourafalou, Christopher M. Little, Andrew Matthews, Angélique Melet, Mark Merrifield, Benoit Meyssignac, Shoshiro Minobe, Thierry Penduff, Nicolas Picot, Christopher Piecuch, Richard D. Ray, Lesley Rickards, Alvaro Santamaría-Gómez, Detlef Stammer, Joanna Staneva, Laurent Testut, Keith Thompson, Philip Thompson, Stefano Vignudelli, Joanne Williams, Simon D. P. Williams, Guy Wöppelmann, Laure Zanna, and Xuebin Zhang. Towards comprehensive observing and modeling systems for monitoring and predicting regional to coastal sea level. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Rodriguez:2019:WCM**

- [1903] Ernesto Rodríguez, Mark Bourassa, Dudley Chelton, J. Thomas Farrar, David Long, Dragana Perkovic-Martin, and Roger Samelson. The winds and currents mission concept. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Roemmich:2019:FAG**

- [1904] Dean Roemmich, Matthew H. Alford, Hervé Claustre, Kenneth Johnson, Brian King, James Moum, Peter Oke, W. Brechner Owens, Sylvie Pouliquen, Sarah Purkey, Megan Scanderbeg, Toshio Suga, Susan Wijffels, Nathalie Zilberman, Dorothee Bakker, Molly Baringer, Mathieu Belbeoch, Henry C. Bittig, Emmanuel Boss, Paulo Calil, Fiona Carse, Thierry Carval, Fei Chai, Diarmuid Ó. Conchubhair, Fabrizio d'Ortenzio, Giorgio Dall'Olmo, Damien Desbruyeres, Katja Fennel, Ilker Fer, Raffaele Ferrari, Gael Forget, Howard Freeland, Tetsuichi Fujiki, Marion Gehlen, Blair Greenan, Robert Hallberg, Toshiyuki Hibiya, Shigeki Hosoda, Steven Jayne, Markus Jochum, Gregory C. Johnson, KiRyong Kang, Nicolas Kolodziejczyk, Arne Körtzinger, Pierre-Yves Le Traon, Yueng-Djern Lenn, Guillaume Maze, Kjell Arne Mork, Tamaryn Morris, Takeyoshi Nagai, Jonathan Nash, Alberto Naveira

Garabato, Are Olsen, Rama Rao Pattabhi, Satya Prakash, Stephen Riser, Catherine Schmechtig, Claudia Schmid, Emily Shroyer, Andreas Sterl, Philip Sutton, Lynne Talley, Toste Tanhua, Virginie Thierry, Sandy Thomalla, John Toole, Ariel Troisi, Thomas W. Trull, Jon Turton, Pedro Joaquin Velez-Belchi, Waldemar Walczowski, Haili Wang, Rik Wanninkhof, Amy F. Waterhouse, Stephanie Waterman, Andrew Watson, Cara Wilson, Annie P. S. Wong, Jianping Xu, and Ichiro Yasuda. On the future of Argo: a global, full-depth, multi-disciplinary array. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Tanhua:2019:OFD**

- [1905] Toste Tanhua, Sylvie Pouliquen, Jessica Hausman, Kevin O'Brien, Pip Bricher, Taco de Bruin, Justin J. H. Buck, Eugene F. Burger, Thierry Carval, Kenneth S. Casey, Steve Diggs, Alessandra Giorgetti, Helen Graves, Valerie Harscoat, Danie Kinkade, Jose H. Muelbert, Antonio Novellino, Benjamin Pfeil, Peter L. Pulsifer, Anton Van de Putte, Erin Robinson, Dick Schaap, Alexander Smirnov, Neville Smith, Derrick Snowden, Tobias Spears, Shelley Stall, Marten Tacoma, Peter Thijsse, Stein Tronstad, Thomas Vandenbergh, Micah Wengren, Lesley Wyborn, and Zhiming Zhao. Ocean FAIR data services. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Kent:2019:ORL**

- [1906] Elizabeth C. Kent, Nick A. Rayner, David I. Berry, Ryan Eastman, Vika G. Grigorieva, Boyin Huang, John J. Kennedy, Shawn R. Smith, and Kate M. Willett. Observing requirements for long-term climate records at the ocean surface. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Snowden:2019:DIB**

- [1907] Derrick Snowden, Vardis M. Tsontos, Nils Olav Handegard, Marcos Zarate, Kevin O' Brien, Kenneth S. Casey, Neville Smith, Helge Sagen, Kathleen Bailey, Mirtha N. Lewis, and Sean C. Arms. Data interoperability between elements of the global ocean observing system. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Bourassa:2019:RSW**

- [1908] Mark A. Bourassa, Thomas Meissner, Ivana Cerovecki, Paul S. Chang, Xiaolong Dong, Giovanna De Chiara, Craig Donlon, Dmitry S. Dukhovskoy, Jocelyn Elya, Alexander Fore, Melanie R. Fewings, Ralph C. Foster, Sarah T. Gille, Brian K. Haus, Svetla Hristova-Velva, Heather M. Holbach, Zorana Jelenak, John A. Knaff, Sven A. Kranz, Andrew Manaster, Matthew Mazloff, Carl Mears, Alexis Mouche, Marcos Portabella, Nicolas Reul, Lucrezia Ricciardulli, Ernesto Rodriguez,



Charles Sampson, Daniel Solis, Ad Stoffelen, Michael R. Stukel, Bryan Stiles, David Weissman, and Frank Wentz. Remotely sensed winds and wind stresses for marine forecasting and ocean modeling. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Stammer:2019:OCO**

- [1909] Detlef Stammer, Annalisa Bracco, Krishna AchutaRao, Lisa Beal, Nathaniel L. Bindoff, Pascale Braconnot, Wenju Cai, Dake Chen, Matthew Collins, Gokhan Danabasoglu, Boris Dewitte, Riccardo Farneti, Baylor Fox-Kemper, John Fyfe, Stephen M. Griffies, Steven R. Jayne, Alban Lazar, Matthieu Lengaigne, Xiaopei Lin, Simon Marsland, Shoshiro Minobe, Pedro M. S. Monteiro, Walter Robinson, Mathew Koll Roxy, Ryan R. Rykaczewski, Sabrina Speich, Inga J. Smith, Amy Solomon, Andrea Storto, Ken Takahashi, Thomas Toniazzo, and Jerome Vialard. Ocean climate observing requirements in support of climate research and climate information. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Sloyan:2019:GOS**

- [1910] Bernadette M. Sloyan, Rik Wanninkhof, Martin Kramp, Gregory C. Johnson, Lynne D. Talley, Toste Tanhua, Elaine McDonagh, Caroline Cusack, Eleanor O'Rourke, Evin McGovern, Katsuro Katsumata, Steve Diggs, Julia Hummon, Masao Ishii, Kumiko Azetsu-Scott, Emmanuel Boss, Isabelle Ansorge, Fiz F. Perez, Herlé Mercier, Michael J. M. Williams, Leif Anderson, Jae Hak Lee, Akihiko Murata, Shinya Kouketsu, Emil Jeansson, Mario Hoppema, and Edmo Campos. The global ocean ship-based hydrographic investigations program (GO-SHIP): a platform for integrated multidisciplinary ocean science. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Domingues:2019:OOS**

- [1911] Ricardo Domingues, Akira Kuwano-Yoshida, Patricia Chardon-Maldonado, Robert E. Todd, George Halliwell, Hyun-Sook Kim, I.-I. Lin, Katsufumi Sato, Tomoko Narazaki, Lynn K. Shay, Travis Miles, Scott Glenn, Jun A. Zhang, Steven R. Jayne, Luca Centurioni, Matthieu Le Hénaff, Gregory R. Foltz, Francis Bringas, M. M. Ali, Steven F. DiMarco, Shigeki Hosoda, Takuya Fukuoka, Benjamin LaCour, Avichal Mehra, Elizabeth R. Sanabia, John R. Gyakum, Jili Dong, John A. Knaff, and Gustavo Goni. Ocean observations in support of studies and forecasts of tropical and extratropical cyclones. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Maximenko:2019:TIM**

- [1912] Nikolai Maximenko, Paolo Corradi, Kara Lavender Law, Erik Van Sebille, Shungudzemwoyo P. Garaba, Richard Stephen Lampitt, Francois Galgani, Victor Martinez-Vicente, Lonneke Goddijn-Murphy, Joana Mira Veiga, Richard C. Thompson, Christophe Maes, Delwyn Moller, Carolin Regina Löscher, Anna Maria Addamo, Megan R. Lamson, Luca R. Centurioni, Nicole R. Posth, Rick Lumpkin, Matteo Vinci, Ana Maria Martins, Catharina Diogo Pieper, Atsuhiko Isobe, Georg Hanke, Margo Edwards, Irina P. Chubarenko, Ernesto Rodriguez, Stefano Aliani, Manuel Arias, Gregory P. Asner, Alberto Brosich, James T. Carlton, Yi Chao, Anna-Marie Cook, Andrew B. Cundy, Tamara S. Galloway, Alessandra Giorgetti, Gustavo Jorge Goni, Yann Guichoux, Linsey E. Haram, Britta Denise Hardesty, Neil Holdsworth, Laurent Lebreton, Heather A. Leslie, Ilan Macadam-Somer, Thomas Mace, Mark Manuel, Robert Marsh, Elodie Martinez, Daniel J. Mayor, Morgan Le Moigne, Maria Eugenia Molina Jack, Matt Charles Mowlem, Rachel W. Obbard, Katsiaryna Pabortsava, Bill Robberson, Amelia-Elena Rotaru, Gregory M. Ruiz, Maria Teresa Spedicato, Martin Thiel, Alexander Turra, and Chris Wilcox. Toward the integrated marine debris observing system. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Meinig:2019:PPP**

- [1913] Christian Meinig, Eugene F. Burger, Nora Cohen, Edward D. Cokelet, Meghan F. Cronin, Jessica N. Cross, Sebastien de Halleux, Richard Jenkins, Andrew T. Jessup, Calvin W. Mordy, Noah Lawrence-Slavas, Adrienne J. Sutton, Dongxiao Zhang, and Chidong Zhang. Public-private partnerships to advance regional ocean-observing capabilities: a sail-drone and NOAA-PMEL case study and future considerations to expand to global scale observing. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Sloyan:2019:EPG**

- [1914] Bernadette M. Sloyan, John Wilkin, Katherine Louise Hill, Maria Paz Chidichimo, Meghan F. Cronin, Johnny A. Johannessen, Johannes Karstensen, Marjolaine Krug, Tong Lee, Eitarou Oka, Matthew D. Palmer, Benjamin Rabe, Sabrina Speich, Karina von Schuckmann, Robert A. Weller, and Weidong Yu. Evolving the physical global ocean observing system for research and application services through international coordination. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Davidson:2019:SOO**

- [1915] Fraser Davidson, Aida Alvera-Azcárate, Alexander Barth, Gary B.

Brassington, Eric P. Chassignet, Emanuela Clementi, Pierre De Mey-Frémaux, Prasanth Divakaran, Christopher Harris, Fabrice Hernandez, Patrick Hogan, Lars R. Hole, Jason Holt, Guimei Liu, Youyu Lu, Pablo Lorente, Jan Maksymczuk, Matthew Martin, Avichal Mehra, Arne Melsom, Hui Mo, Andrew Moore, Paolo Oddo, Ananda Pascual, Anne-Christine Pequignet, Villy Kourafalou, Andrew Ryan, John Siddorn, Gregory Smith, Deanna Spindler, Todd Spindler, Emil V. Stanev, Joanna Staneva, Andrea Storto, Clemente Tanajura, P. N. Vinayachandran, Liying Wan, Hui Wang, Yu Zhang, Xueming Zhu, and Ziqing Zu. Synergies in operational oceanography: The intrinsic need for sustained ocean observations. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Lee:2019:FDD**

- [1916] Craig M. Lee, Sandy Starkweather, Hajo Eicken, Mary-Louise Timmermans, Jeremy Wilkinson, Stein Sandven, Dmitry Dukhovskoy, Sebastian Gerland, Jacqueline Grebmeier, Janet M. Intrieri, Sung-Ho Kang, Molly McCammon, An T. Nguyen, Igor Polyakov, Benjamin Rabe, Hanne Sagen, Sophie Seeyave, Denis Volkov, Agnieszka Beszczynska-Möller, Léon Chafik, Matthew Dzieciuch, Gustavo Goni, Torill Hamre, Andrew Luke King, Are Olsen, Roshin P. Raj, Thomas Rossby, Øystein Skagseth, Henrik Sjøiland, and Kai Sørensen. A framework for the development, design and implementation of a sustained Arctic Ocean observing system. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Goni:2019:MTY**

- [1917] Gustavo J. Goni, Janet Sprintall, Francis Bringas, Lijing Cheng, Mauro Cirano, Shenfu Dong, Ricardo Domingues, Marlos Goes, Hosmay Lopez, Rosemary Morrow, Ulises Rivero, Thomas Rossby, Robert E. Todd, Joaquin Trinanes, Nathalie Zilberman, Molly Baringer, Tim Boyer, Rebecca Cowley, Catia M. Domingues, Katherine Hutchinson, Martin Kramp, Mauricio M. Mata, Franco Reseghetti, Charles Sun, Udaya Bhaskar TVS, and Denis Volkov. More than 50 years of successful continuous temperature section measurements by the global expendable bathythermograph network, its integrability, societal benefits, and future. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Klein:2019:NTTb**

- [1918] Shannon G. Klein, Kylie A. Pitt, Cathy H. Lucas, Shiou-Han Hung, Sebastian Schmidt-Roach, Manuel Aranda, and Carlos M. Duarte. Night-time temperature reprieves enhance the thermal tolerance of a symbiotic cnidarian. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Paredes:2019:UCB**

- [1919] Estefania Paredes and Juan Bellas. The use of cryopreserved biological material for water quality assessment. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Kendrick:2019:SRH**

- [1920] Gary A. Kendrick, Robert J. Nowicki, Ylva S. Olsen, Simone Strydom, Matthew W. Fraser, Elizabeth A. Sinclair, John Statton, Renae K. Hovey, Jordan A. Thomson, Derek A. Burkholder, Kathryn M. McMahon, Kiernyn Kilminster, Yasha Hetzel, James W. Fourqurean, Michael R. Heithaus, and Robert J. Orth. A systematic review of how multiple stressors from an extreme event drove ecosystem-wide loss of resilience in an iconic seagrass community. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Hall:2019:SCV**

- [1921] Alice E. Hall, Roger J. H. Herbert, J. Robert Britton, Ian M. Boyd, and Nigel C. George. Shelving the coast with vertipools: Retrofitting artificial rock pools on coastal structures as mitigation for coastal squeeze. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Gommenginger:2019:SMS**

- [1922] Christine Gommenginger, Bertrand Chapron, Andy Hogg, Christian Buckingham, Baylor Fox-Kemper, Leif Eriksson, Francois Soulat, Clément Ubelmann, Francisco Ocampo-Torres, Bruno Buongiorno Nardelli, David Griffin, Paco Lopez-Dekker, Per Knudsen, Ole Andersen, Lars Stenseng, Neil Stapleton, William Perrie, Nelson Violante-Carvalho, Johannes Schulz-Stellenfleh, David Woolf, Jordi Isern-Fontanet, Fabrice Arduin, Patrice Klein, Alexis Mouche, Ananda Pascual, Xavier Capet, Daniele Hauser, Ad Stoffelen, Rosemary Morrow, Lotfi Aouf, Øyvind Breivik, Lee-Lueng Fu, Johnny A. Johannessen, Yevgeny Aksenov, Lucy Bricheno, Joel Hirschi, Adrien C. H. Martin, Adrian P. Martin, George Nurser, Jeff Polton, Judith Wolf, Harald Johnsen, Alexander Soloviev, Gregg A. Jacobs, Fabrice Collard, Steve Groom, Vladimir Kudryavtsev, John Wilkin, Victor Navarro, Alex Babanin, Matthew Martin, John Siddorn, Andrew Saulter, Tom Rippeth, Bill Emery, Nikolai Maximenko, Roland Romeiser, Hans Graber, Aida Alvera Azcarate, Chris W. Hughes, Doug Vandemark, Jose da Silva, Peter Jan Van Leeuwen, Alberto Naveira-Garabato, Johannes Gemmrich, Amala Mahadevan, Jose Marquez, Yvonne Munro, Sam Dody, and Geoff Burbidge. SEASTAR: a mission to study ocean submesoscale dynamics and small-scale atmosphere-ocean processes in coastal, shelf and polar seas. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Wassmann:2019:AMN**

- [1923] Paul Wassmann, Dag Slagstad, and Ingrid Ellingsen. Advection of mesozooplankton into the Northern Svalbard Shelf Region. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Trucco-Pignata:2019:VUO**

- [1924] Pablo N. Trucco-Pignata, José Martín Hernández-Ayón, Eduardo Santamaria del Angel, Emilio Beier, Laura Sánchez-Velasco, Victor M. Godínez, and Orión Norzagaray. Ventilation of the upper oxygen minimum zone in the coastal region off Mexico: Implications of El Niño 2015–2016. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Gwiazda:2019:EFA**

- [1925] Roberto H. Gwiazda, Charles K. Paull, David W. Caress, Christina Marie Preston, Shannon B. Johnson, Eve M. Lundsten, and Krystle Anderson. The extent of fault-associated modern authigenic barite deposits offshore Northern Baja California revealed by high-resolution mapping. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**VanDover:2019:ISE**

- [1926] Cindy Lee Van Dover. Inactive sulfide ecosystems in the deep sea: a review. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Gillard:2019:HMR**

- [1927] Benjamin Gillard, Damianos Chatzievangelou, Laurenz Thomsen, and Matthias S. Ullrich. Heavy-metal-resistant microorganisms in deep-sea sediments disturbed by mining activity: an application toward the development of experimental in vitro systems. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Lopez-Cortes:2019:SKH**

- [1928] David J. López-Cortés, Erick J. Núñez Vázquez, Juan J. Dorantes-Aranda, Christine J. Band-Schmidt, Francisco E. Hernández-Sandoval, José J. Bustillos-Guzmán, Ignacio Leyva-Valencia, and Leyberth J. Fernández-Herrera. The state of knowledge of harmful algal blooms of *Margalefidinium polykrikoides* (a.k.a. *Cochlodinium polykrikoides*) in Latin America. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Rousi:2019:BWB**

- [1929] Heta Rousi, Samuli Korpinen, and Erik Bonsdorff. Brackish-water benthic fauna under fluctuating environmental conditions: The role of eu-

trophication, hypoxia, and global change. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Lee:2019:EPS**

- [1930] Szu-Hsuan Lee, Mao-Ying Lee, Mizuki Matsunuma, and Wei-Jen Chen. Exploring the phylogeny and species diversity of *Chelidoperca* (Teleostei: Serranidae) from the Western Pacific Ocean by an integrated approach in systematics, with descriptions of three new species and a redescription of *C. lecromi* Fourmanoir, 1982. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Horton:2019:DDN**

- [1931] Travis W. Horton, Nan Hauser, Shannon Cassel, K. Frederika Klaus, Tiziana Fettermann, and Nicholas Key. Doctor Drone: Non-invasive measurement of humpback whale vital signs using unoccupied aerial system infrared thermography. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Scianni:2019:VWC**

- [1932] Chris Scianni and Eugene Georgiades. Vessel in-water cleaning or treatment: Identification of environmental risks and science needs for evidence-based decision making. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Sanz-Martin:2019:RBC**

- [1933] Marina Sanz-Martín, María Vernet, Mattias R. Cape, Elena Mesa, Antonio Delgado-Huertas, Marit Reigstad, Paul Wassmann, and Carlos M. Duarte. Relationship between carbon- and oxygen-based primary productivity in the Arctic Ocean, Svalbard Archipelago. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Rosa:2019:GPS**

- [1934] Rui Rosa, Vasco Pissarra, Francisco O. Borges, José Xavier, Ian G. Gleadall, Alexey Golikov, Giambattista Bello, Liliane Morais, Fedor Lishchenko, Álvaro Roura, Heather Judkins, Christian M. Ibáñez, Uwe Piatkowski, Michael Vecchione, and Roger Villanueva. Global patterns of species richness in coastal cephalopods. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Tanhua:2019:WWL**

- [1935] Toste Tanhua, Andrea McCurdy, Albert Fischer, Ward Appeltans, Nicholas Bax, Kim Currie, Brad DeYoung, Daniel Dunn, Emma Heslop, Linda K. Glover, John Gunn, Katherine Hill, Masao Ishii, David Legler,

Eric Lindstrom, Patricia Miloslavich, Tim Moltmann, Glenn Nolan, Artur Palacz, Samantha Simmons, Bernadette Sloyan, Leslie M. Smith, Neville Smith, Maciej Telszewski, Martin Visbeck, and John Wilkin. What we have learned from the framework for ocean observing: Evolution of the global ocean observing system. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Jacques:2019:OPL**

- [1936] Steven L. Jacques, Daniel Wangpraseurt, and Michael Kühl. Optical properties of living corals determined with diffuse reflectance spectroscopy. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Dammer:2019:LIM**

- [1937] Linda K. Dämmer, Lennart J. de Nooijer, and Gert-Jan Reichart. Light impacts Mg incorporation in the benthic foraminifer *Amphistegina lessonii*. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Stevens:2019:PRM**

- [1938] Tim Stevens, Laurence Mee, Jana Friedrich, Dmitry Aleynik, and Galina Minicheva. Partial recovery of macro-epibenthic assemblages on the North-West Shelf of the Black Sea. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Bekkby:2019:AKM**

- [1939] Trine Bekkby, Cecilie Smit, Hege Gundersen, Eli Rinde, Henning Steen, Lise Tveiten, Janne K. Gitmark, Stein Fredriksen, Jon Albrechtsen, and Hartvig Christie. The abundance of kelp is modified by the combined impact of depth, waves and currents. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Powers:2019:LPO**

- [1940] Molly Powers, Zulfikar Begg, Grant Smith, and Elaine Miles. Lessons from the Pacific Ocean Portal: Building Pacific Island capacity to interpret, apply, and communicate ocean information. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Andruszkiewicz:2019:MED**

- [1941] Elizabeth A. Andruszkiewicz, Jeffrey R. Koseff, Oliver B. Fringer, Nicholas T. Ouellette, Anna B. Lowe, Christopher A. Edwards, and Alexandria B. Boehm. Modeling environmental DNA transport in the coastal ocean using Lagrangian particle tracking. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Shimabukuro:2019:DDP**

- [1942] Mauricio Shimabukuro, Orlemir Carrerette, Joan Manel Alfaro-Lucas, Alexandra Elaine Rizzo, Kenneth M. Halanych, and Paulo Yukio Gomes Sumida. Diversity, distribution and phylogeny of *Hesionidae* (Annelida) colonizing whale falls: New species of *Sirsoe* and connections between ocean basins. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745. See corrigendum [2214].

**Kalenitchenko:2019:BSC**

- [1943] Dimitri Kalenitchenko, Nathalie Joli, Marianne Potvin, Jean-Éric Tremblay, and Connie Lovejoy. Biodiversity and species change in the Arctic Ocean: a view through the lens of Nares Strait. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Kennedy:2019:UUI**

- [1944] Brian R. C. Kennedy, Kasey Cantwell, Mashkooor Malik, Christopher Kelley, Jeremy Potter, Kelley Elliott, Elizabeth Lobecker, Lindsay McKenna Gray, Derek Sowers, Michael P. White, Scott C. France, Steven Auscavitch, Christopher Mah, Virginia Moriwake, Sarah R. D. Bingo, Meagan Putts, and Randi D. Rotjan. The unknown and the unexplored: Insights into the Pacific deep-sea following NOAA CAPSTONE Expeditions. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745. See corrigendum [2208].

**Mori:2019:NCB**

- [1945] Corinna Mori, Isaac R. Santos, Hans-Jürgen Brumsack, Bernhard Schnetger, Thorsten Dittmar, and Michael Seidel. Non-conservative behavior of dissolved organic matter and trace metals (Mn, Fe, Ba) driven by porewater exchange in a subtropical mangrove-estuary. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Hjerne:2019:CDC**

- [1946] Olle Hjerne, Susanna Hajdu, Ulf Larsson, Andrea S. Downing, and Monika Winder. Climate driven changes in timing, composition and magnitude of the Baltic Sea phytoplankton spring bloom. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745. See corrigendum [2212].

**Poitevin:2019:GRA**

- [1947] Pierre Poitevin, Julien Thébault, Valentin Siebert, Sébastien Donnet, Philippe Archambault, Justine Doré, Laurent Chauvaud, and Pascal



Lazure. Growth response of *Arctica islandica* to North Atlantic Oceanographic conditions since 1850. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Caputi:2019:FAR**

- [1948] Nick Caputi, Mervi Kangas, Arani Chandrapavan, Anthony Hart, Ming Feng, Maxime Marin, and Simon de Lestang. Factors affecting the recovery of invertebrate stocks from the 2011 Western Australian extreme marine heatwave. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Groom:2019:SOC**

- [1949] Steve Groom, Shubha Sathyendranath, Yai Ban, Stewart Bernard, Robert Brewin, Vanda Brotas, Carsten Brockmann, Prakash Chauhan, Jong kuk Choi, Andrei Chuprin, Stefano Ciavatta, Paolo Cipollini, Craig Donlon, Bryan Franz, Xianqiang He, Takafumi Hirata, Tom Jackson, Milton Kampel, Hajo Krasemann, Samantha Lavender, Silvia Pardo-Martinez, Frédéric Mélin, Trevor Platt, Rosalia Santoleri, Jozef Skakala, Blake Schaeffer, Marie Smith, Francois Steinmetz, Andre Valente, and Menghua Wang. Satellite ocean colour: Current status and future perspective. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Peltier:2019:MMM**

- [1950] Hélène Peltier, Alain Beaufils, Catherine Cesarini, Willy Dabin, Cécile Dars, Fabien Demaret, Frank Dhermain, Ghislain Doremus, Hélène Labach, Olivier Van Canneyt, and Jérôme Spitz. Monitoring of marine mammal strandings along French coasts reveals the importance of ship strikes on large cetaceans: a challenge for the European Marine Strategy Framework Directive. *Frontiers in Marine Science*, 6, July 2019. ISSN 2296-7745.

**Tilley:2019:NFA**

- [1951] Alexander Tilley, Shaun P. Wilkinson, Jeppe Kolding, Juliana López-Angarita, Mario Pereira, and David J. Mills. Nearshore fish aggregating devices show positive outcomes for sustainable fisheries development in Timor-Leste. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Tato:2019:UMM**

- [1952] Tania Tato and Ricardo Beiras. The use of the marine microalga *Tisochrysis lutea* (T-iso) in standard toxicity tests; comparative sensitivity with other test species. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Hayes:2019:AMM**

- [1953] Keith R. Hayes, Graeme J. Inglis, and Simon C. Barry. The assessment and management of marine pest risks posed by shipping: The Australian and New Zealand experience. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Ershova:2019:DDM**

- [1954] E. A. Ershova, R. Descoteaux, O. S. Wangensteen, K. Iken, R. R. Hopcroft, C. Smoot, J. M. Grebmeier, and B. A. Bluhm. Diversity and distribution of meroplanktonic larvae in the Pacific Arctic and connectivity with adult benthic invertebrate communities. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**O'Neill:2019:EAE**

- [1955] Elizabeth Drury O'Neill, Therese Lindahl, Tim Daw, Beatrice Crona, Alice Joan G. Ferrer, and Robert Pomeroy. An experimental approach to exploring market responses in small-scale fishing communities. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Ehrnsten:2019:CEE**

- [1956] Eva Ehrnsten, Barbara Bauer, and Bo G. Gustafsson. Combined effects of environmental drivers on marine trophic groups — a systematic model comparison. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Humborg:2019:HEC**

- [1957] Christoph Humborg, Marc. C. Geibel, Xiaole Sun, Michelle McCrackin, Carl-Magnus Mörth, Christian Stranne, Martin Jakobsson, Bo Gustafsson, Alexander Sokolov, Alf Norkko, and Joanna Norkko. High emissions of carbon dioxide and methane from the coastal Baltic Sea at the end of a summer heat wave. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Shan:2019:AGC**

- [1958] Tifeng Shan, Qianxi Li, Xuemei Wang, Li Su, and Shaojun Pang. Assessment of the genetic connectivity between farmed populations on a typical kelp farm and adjacent spontaneous populations of *Saccharina japonica* (Phaeophyceae, Laminariales) in China. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Chadwick:2019:REB**

- [1959] William W. Chadwick, Kenneth H. Rubin, Susan G. Merle, Andra M. Bobbitt, Tom Kwasnitschka, and Robert W. Embley. Recent eruptions

between 2012 and 2018 discovered at West Mata Submarine Volcano (NE Lau Basin, SW Pacific) and characterized by new ship, AUV, and ROV data. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Solis:2019:ELH**

- [1960] Marco A. Solís, Manuel Ballesteros, and José M. Riascos. The early life history transitions of the bivalve *Aulacomya atra* from the Humboldt Current System off Peru are affected by human exploitation and modulated by El Niño–La Niña cycle. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Jacox:2019:PEC**

- [1961] Michael G. Jacox, Desiree Tommasi, Michael A. Alexander, Gaelle Hervieux, and Charles A. Stock. Predicting the evolution of the 2014–2016 California Current System marine heatwave from an ensemble of coupled global climate forecasts. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Fordyce:2019:MHH**

- [1962] Alexander J. Fordyce, Tracy D. Ainsworth, Scott F. Heron, and William Leggat. Marine heatwave hotspots in coral reef environments: Physical drivers, ecophysiological outcomes, and impact upon structural complexity. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Arafeh-Dalmau:2019:EMH**

- [1963] Nur Arafeh-Dalmau, Gabriela Montaña-Moctezuma, José A. Martínez, Rodrigo Beas-Luna, David S. Schoeman, and Guillermo Torres-Moye. Extreme marine heatwaves alter kelp forest community near its equatorward distribution limit. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Haver:2019:CUS**

- [1964] Samara M. Haver, Michelle E. H. Fournet, Robert P. Dziak, Christine Gabriele, Jason Gedamke, Leila T. Hatch, Joseph Haxel, Scott A. Huppell, Megan F. McKenna, David K. Mellinger, and Sofie M. Van Parijs. Comparing the underwater soundscapes of four U.S. national parks and marine sanctuaries. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Flynn:2019:LPO**

- [1965] Kiirsten Regina Flynn and John Calambokidis. Lessons from placing an observer on commercial cargo ships off the U.S. West Coast: Utility as an observation platform and insight into ship strike vulnerability. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Bittig:2019:BAG**

- [1966] Henry C. Bittig, Tanya L. Maurer, Joshua N. Plant, Catherine Schmechtig, Annie P. S. Wong, Hervé Claustre, Thomas W. Trull, T. V. S. Udaya Bhaskar, Emmanuel Boss, Giorgio Dall'Olmo, Emanuele Organelli, Antoine Poteau, Kenneth S. Johnson, Craig Hanstein, Edouard Leymarie, Serge Le Reste, Stephen C. Riser, A. Rick Rupan, Vincent Taillandier, Virginie Thierry, and Xiaogang Xing. A BGC-Argo guide: Planning, deployment, data handling and usage. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Cole:2019:OCM**

- [1967] Rick Cole, Jeff Kinder, Weidong Yu, Chun Lin Ning, Fujun Wang, and Yang Chao. Ocean climate monitoring. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Abbott:2019:CMP**

- [1968] April N. Abbott, Stefan Löhr, and Megan Trethewy. Are clay minerals the primary control on the oceanic rare earth element budget? *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Leaper:2019:RSV**

- [1969] Russell Leaper. The role of slower vessel speeds in reducing greenhouse gas emissions, underwater noise and collision risk to whales. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Thaler:2019:BMW**

- [1970] Andrew Thaler, E. C. M. Parsons, Asha de Vos, Naomi A. Rose, Courtney Smith, and Dominik Fretz. Bot meets whale: Best practices for mitigating negative interactions between marine mammals and Micro-ROVs. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Escobar-Flores:2019:AAM**

- [1971] Pablo Christian Escobar-Flores, Yoann Ladrout, and Richard Lyell O'Driscoll. Acoustic assessment of the micronekton community on the Chatham Rise, New Zealand, using a semi-automated approach. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Kelly:2019:IMD**

- [1972] Thomas B. Kelly, Peter C. Davison, Ralf Goericke, Michael R. Landry, Mark D. Ohman, and Michael R. Stukel. The importance of mesozooplankton diel vertical migration for sustaining a mesopelagic food web. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Galbraith:2019:GLM**

- [1973] Eric D. Galbraith, Priscilla Le Mézo, Gerard Solanes Hernandez, Daniele Bianchi, and David Kroodsma. Growth limitation of marine fish by low iron availability in the open ocean. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Chandrapavan:2019:DRC**

- [1974] Arani Chandrapavan, Nick Caputi, and Mervi I. Kangas. The decline and recovery of a crab population from an extreme marine heatwave and a changing climate. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Gittman:2019:VRM**

- [1975] Rachel K. Gittman, Christopher J. Baillie, Katie K. Arkema, Richard O. Bennett, Jeff Benoit, Seth Blitch, Julien Brun, Anthony Chatwin, Allison Colden, Alyssa Dausman, Bryan DeAngelis, Nathaniel Herold, Jessica Henkel, Rachel Houge, Ronald Howard, A. Randall Hughes, Steven B. Scyphers, Tisa Shostik, Ariana Sutton-Grier, and Jonathan H. Grabowski. Voluntary restoration: Mitigation's silent partner in the quest to reverse coastal wetland loss in the USA. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Sheehan:2019:EDO**

- [1976] Emma V. Sheehan, Phil Hosegood, Chloe A. Game, Martin J. Attrill, David Tickler, Marianne Wootton, David G. Johns, and Jessica J. Meeuwig. The effect of deep oceanic flushing on water properties and ecosystem functioning within atolls in the British Indian Ocean Territory. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Spencer:2019:FBR**

- [1977] Erin T. Spencer and John F. Bruno. Fishy business: Red snapper mislabeling along the coastline of the Southeastern United States. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Koch:2019:LFZ**

- [1978] Florian Koch and Scarlett Trimborn. Limitation by Fe, Zn, Co, and B<sub>12</sub> results in similar physiological responses in two Antarctic phytoplankton species. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Zhang:2019:SFA**

- [1979] Hui Zhang, Susumu Yoshizawa, Wataru Iwasaki, and Weiwei Xian. Seasonal fish assemblage structure using environmental DNA in the Yangtze

Estuary and its adjacent waters. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Burdett:2019:PRC**

- [1980] Heidi L. Burdett, Honor Wright, and Dan A. Smale. Photophysiological responses of canopy-forming kelp species to short-term acute warming. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Fulton:2019:UPC**

- [1981] Stuart Fulton, Catalina López-Sagástegui, Amy Hudson Weaver, Fernanda Fitzmaurice-Cahluni, Carlos Galindo, Francisco Fernández-Rivera Melo, Silvia Yee, María Belén Ojeda-Villegas, David Antonio Fuentes, and Elizabeth Torres-Bahena. Untapped potential of citizen science in Mexican small-scale fisheries. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Vikebo:2019:WIK**

- [1982] Frode B. Vikebø, Kjersti Opstad Strand, and Svein Sundby. Wind intensity is key to phytoplankton spring bloom under climate change. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Wang:2019:AOO**

- [1983] Zhaohui Aleck Wang, Hassan Moustahfid, Amy V. Mueller, Anna P. M. Michel, Matthew Mowlem, Brian T. Glazer, T. Aran Mooney, William Michaels, Jonathan S. McQuillan, Julie C. Robidart, James Churchill, Marc Sourisseau, Anne Daniel, Allison Schaap, Sam Monk, Kim Friedman, and Patrice Brehmer. Advancing observation of ocean biogeochemistry, biology, and ecosystems with cost-effective in situ sensing technologies. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Rabone:2019:AMG**

- [1984] Muriel Rabone, Harriet Harden-Davies, Jane Eva Collins, Sabine Zajderman, Ward Appeltans, Gabi Droege, Angelika Brandt, Liliana Pardo-Lopez, Thomas G. Dahlgren, Adrian G. Glover, and Tammy Horton. Access to Marine Genetic Resources (MGR): Raising awareness of best-practice through a new agreement for Biodiversity Beyond National Jurisdiction (BBNJ). *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Chirayath:2019:NGO**

- [1985] Ved Chirayath and Alan Li. Next-generation optical sensing technologies for exploring ocean worlds — NASA FluidCam, MiDAR, and NeMO-net. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Prada:2019:KMI**

- [1986] Fiorella Prada, Ruth Yam, Oren Levy, Erik Caroselli, Giuseppe Falini, Zvy Dubinsky, Stefano Goffredo, and Aldo Shemesh. Kinetic and metabolic isotope effects in zooxanthellate and non-zooxanthellate Mediterranean corals along a wide latitudinal gradient. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**DSa:2019:BRA**

- [1987] Eurico J. D'Sa, Ishan D. Joshi, Bingqing Liu, Dong S. Ko, Christopher L. Osburn, and Thomas S. Bianchi. Biogeochemical response of Apalachicola Bay and the shelf waters to Hurricane Michael using ocean color semi-analytic/inversion and hydrodynamic models. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Barton:2019:LCA**

- [1988] Jonathan A. Barton, Kate S. Hutson, David G. Bourne, Craig Humphrey, Cat Dybala, and Kate A. Rawlinson. The life cycle of the *Acropora* coral-eating flatworm (AEFW), *Prothiostomum acroporae*; the influence of temperature and management guidelines. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Trull:2019:AMT**

- [1989] Thomas W. Trull, Peter Jansen, Eric Schulz, Ben Weeding, Diana M. Davies, and Stephen G. Bray. Autonomous multi-trophic observations of productivity and export at the Australian Southern Ocean Time Series (SOTS) reveal sequential mechanisms of physical–biological coupling. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Pagniello:2019:MFC**

- [1990] Camille M. L. S. Pagniello, Megan A. Cimino, and Eric Terrill. Mapping fish chorus distributions in Southern California using an autonomous wave glider. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Muelbert:2019:IIL**

- [1991] José H. Muelbert, Nicholas J. Nidzieko, Alicia T. R. Acosta, Stace E. Beaulieu, Angelo F. Bernardino, Elmira Boikova, Thomas G. Bornman, Bruno Cataletto, Klaas Deneudt, Erika Eliason, Alexandra Kraberg, Masahiro Nakaoka, Alessandra Puggnetti, Olivier Ragueneau, Mirco Scharfe, Thomas Soltwedel, Heidi M. Sosik, Angela Stanisci, Kremena Stefanova, Pierre Stéphan, Adrian Stier, Johan Wikner, and Adriana Zingone.ILTER — the international long-term ecological research network as a platform for global coastal and ocean observation. *Frontiers*

in *Marine Science*, 6, August 2019. ISSN 2296-7745. See corrigendum [2207].

**Chierici:2019:NCP**

- [1992] Melissa Chierici, Maria Vernet, Agneta Fransson, and Knut Yngve Børsheim. Net community production and carbon exchange from winter to summer in the Atlantic water inflow to the Arctic Ocean. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Farcy:2019:TEC**

- [1993] Patrick Farcy, Dominique Durand, Guillaume Charria, Suzanne J. Painting, Timo Tamminen, Kate Collingridge, Antoine J. Grémare, Laurent Delauney, and Ingrid Puillat. Toward a European Coastal Observing Network to provide better answers to science and to societal challenges; the JERICO Research Infrastructure. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Saunders:2019:MFF**

- [1994] Ryan A. Saunders, Simeon L. Hill, Geraint A. Tarling, and Eugene J. Murphy. Myctophid fish (family Myctophidae) are central consumers in the food web of the Scotia Sea (Southern Ocean). *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Wojtasiewicz:2019:FCL**

- [1995] Bożena Wojtasiewicz, Thomas W. Trull, Lesley Clementson, Diana M. Davies, Nicole L. Patten, Christina Schallenberg, and Nick J. Hardman-Mountford. Factors controlling the lack of phytoplankton biomass in naturally iron fertilized waters near Heard and McDonald Islands in the Southern Ocean. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Romero-Freire:2019:LST**

- [1996] Ana Romero-Freire, Juan Santos-Echeandía, Patricia Neira, and Antonio Cobelo-García. Less-studied technology-critical elements (Nb, Ta, Ga, In, Ge, Te) in the marine environment: Review on their concentrations in water and organisms. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Gutierrez-Villagomez:2019:TAR**

- [1997] Juan Manuel Gutierrez-Villagomez, Christopher J. Martyniuk, Lei Xing, Valerie S. Langlois, Bruce D. Pauli, Jules M. Blais, and Vance L. Trudeau. Transcriptome analysis reveals that naphthenic acids perturb gene networks related to metabolic processes, membrane integrity, and



gut function in *Silurana (Xenopus) tropicalis* embryos. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Sala:2019:TME**

- [1998] Antonello Sala, Emilio Notti, Sara Bonanomi, Jacopo Pulcinella, and Alessandro Colombelli. Trawling in the Mediterranean: an exploration of empirical relations connecting fishing gears, otterboards and propulsive characteristics of fishing vessels. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Hernandez-Leon:2019:ZMA**

- [1999] Santiago Hernández-León, María Pilar Olivar, María Luz Fernández de Puelles, Antonio Bode, Arturo Castellón, Cristina López-Pérez, Víctor M. Tuset, and José Ignacio González-Gordillo. Zooplankton and micronekton active flux across the tropical and subtropical Atlantic Ocean. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Sanchez:2019:CMZ**

- [2000] Juan Armando Sánchez, Fanny L. González-Zapata, Luisa F. Dueñas, Julio Andrade, Ana Lucía Pico-Vargas, Diana Carolina Vergara, Adriana Sarmiento, and Nacor Bolaños. Corals in the mesophotic zone (40–115 m) at the barrier reef complex from San Andrés Island (Southwestern Caribbean). *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Wright:2019:MOA**

- [2001] Darren Wright, Carol Janzen, Robert Bochenek, Jessica Austin, and Edward Page. Marine observing applications using AIS: Automatic identification system. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Renaud:2019:ASS**

- [2002] Paul E. Renaud, Phil Wallhead, Jonne Kotta, Maria Włodarska-Kowalczyk, Richard G. J. Bellerby, Merli Rätsep, Dag Slagstad, and Piotr Kukliński. Arctic sensitivity? Suitable habitat for benthic taxa is surprisingly robust to climate change. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Lau:2019:TCR**

- [2003] Chai Ming Lau, Abdul Adzis Kee-Alfian, Yang Amri Affendi, Julian Hyde, Alvin Chelliah, Yun Sing Leong, Yin Lee Low, Putri Asma Megat Yusop, Ven Thye Leong, A. Mohd Halimi, Yaman Mohd Shahir, R. Mohd Ramdhan, Ai Gaik Lim, and Noor Ikhwanie Zainal. Tracing coral reefs:

a citizen science approach in mapping coral reefs to enhance marine park management strategies. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Boch:2019:CTM**

- [2004] Charles A. Boch, Andrew DeVogelaere, Erica Burton, Chad King, Joshua Lord, Christopher Lovera, Steven Y. Litvin, Linda Kuhnz, and James P. Barry. Coral translocation as a method to restore impacted deep-sea coral communities. *Frontiers in Marine Science*, 6, August 2019. ISSN 2296-7745.

**Kaikkonen:2019:ECM**

- [2005] Laura Kaikkonen, Elina A. Virtanen, Kirsi Kostamo, Juho Lappalainen, and Aarno T. Kotilainen. Extensive coverage of marine mineral concretions revealed in shallow shelf sea areas. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Russo:2019:SEA**

- [2006] Tommaso Russo, Lorenzo D'Andrea, Simone Franceschini, Paolo Accadia, Andrea Cucco, Germana Garofalo, Michele Gristina, Antonio Parisi, Giovanni Quattrocchi, Rosaria Felicita Sabatella, Matteo Sinerchia, Donata M. Canu, Stefano Cataudella, and Fabio Fiorentino. Simulating the effects of alternative management measures of trawl fisheries in the Central Mediterranean Sea: Application of a multi-species bio-economic modeling approach. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Calambokidis:2019:DVS**

- [2007] John Calambokidis, James A. Fahlbusch, Angela R. Szesciorka, Brandon L. Southall, Dave E. Cade, Ari S. Friedlaender, and Jeremy A. Goldbogen. Differential vulnerability to ship strikes between day and night for blue, fin, and humpback whales based on dive and movement data from medium duration archival tags. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Steinhoff:2019:COU**

- [2008] Tobias Steinhoff, Thanos Gkritzalis, Siv K. Lauvset, Steve Jones, Ute Schuster, Are Olsen, Meike Becker, Roberto Bozzano, Fabio Brunetti, Carolina Cantoni, Vanessa Cardin, Denis Diverrès, Björn Fiedler, Agneta Fransson, Michele Gianni, Sue Hartman, Mario Hoppema, Emil Jeansson, Truls Johannessen, Vassilis Kitidis, Arne Körtzinger, Camilla Landa, Nathalie Lefèvre, Anna Luchetta, Lieven Naudts, Philip D. Nightingale, Abdirahman M. Omar, Sara Pensieri, Benjamin Pfeil, Rocío Castaño-Primo, Gregor Rehder, Anna Rutgersson, Richard Sanders, Ingo Schewe,

Giuseppe Siena, Ingunn Skjelvan, Thomas Soltwedel, Steven van Heuven, and Andrew Watson. Constraining the oceanic uptake and fluxes of greenhouse gases by building an ocean network of certified stations: The ocean component of the Integrated Carbon Observation System, ICOS-Oceans. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**deSouza:2019:PHD**

- [2009] Allyson Santos de Souza, Eurico Azevedo Dias Júnior, Manolo Fernandez Perez, Marcelo de Bello Cioffi, Luiz Antonio Carlos Bertollo, Erik Garcia-Machado, Marcelo Nazareno Souza Vallinoto, Galetti Pedro Manoel, and Wagner Franco Molina. Phylogeography and historical demography of two sympatric Atlantic snappers: *Lutjanus analis* and *L. jocu*. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Marcus:2019:SIA**

- [2010] Lara Marcus, Patti Virtue, Peter D. Nichols, Luciana C. Ferreira, Heidi Pethybridge, and Mark G. Meekan. Stable isotope analysis of dermis and the foraging behavior of whale sharks at Ningaloo Reef, Western Australia. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Gu:2019:TAO**

- [2011] Bingning Gu, Tiezhu Yang, Xin Liu, and Heding Shen. Transcriptomic analysis of the *Onchidium reevesii* central nervous system in response to cadmium. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**vanElden:2019:OOG**

- [2012] Sean van Elden, Jessica J. Meeuwig, Richard J. Hobbs, and Jan M. Hemmi. Offshore oil and gas platforms as novel ecosystems: a global perspective. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Sprintall:2019:CDC**

- [2013] Janet Sprintall, Arnold L. Gordon, Susan E. Wijffels, Ming Feng, Shijian Hu, Ariane Koch-Larrouy, Helen Phillips, Dwiyoga Nugroho, Asmi Napitu, Kandaga Pujiana, R. Dwi Susanto, Bernadette Sloyan, Beatriz Peña-Molino, Dongliang Yuan, Nelly Florida Riama, Siswanto Siswanto, Anastasia Kuswardani, Zainal Arifin, A'an J. Wahyudi, Hui Zhou, Taira Nagai, Joseph K. Ansong, Romain Bourdalle-Badié, Jerome Chanut, Florent Lyard, Brian K. Arbic, Andri Ramdhani, and Agus Setiawan. Corrigendum: Detecting change in the Indonesian Seas. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745. See [1723].

**Schmidt:2019:FOO**

- [2014] Jörn O. Schmidt, Steven J. Bograd, Haritz Arrizabalaga, José L. Azevedo, Steven J. Barbeaux, John A. Barth, Tim Boyer, Stephanie Brodie, Juan José Cárdenas, Scott Cross, Jean-Noël Druon, Agneta Fransson, Jason Hartog, Elliott L. Hazen, Alistair Hobday, Michael Jaccox, Johannes Karstensen, Sven Kupschus, Jon Lopez, Lauro A. S.-P. Madureira, José E. Martinelli Filho, Patricia Miloslavich, Catarina P. Santos, Kylie Scales, Sabrina Speich, Matthew B. Sullivan, Amber Szoboszlai, Desiree Tommasi, Douglas Wallace, Stephani Zador, and Paulo Antônio Zawislak. Future ocean observations to connect climate, fisheries and marine ecosystems. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Otaño-Cruz:2019:CNS**

- [2015] Abimarie Otaño-Cruz, Alfredo A. Montañez-Acuña, Noelia M. García-Rodríguez, Dakeishla M. Díaz-Morales, Elizabeth Benson, Elvira Cuevas, Jorge Ortiz-Zayas, and Edwin A. Hernández-Delgado. Caribbean near-shore coral reef benthic community response to changes on sedimentation dynamics and environmental conditions. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Oberle:2019:PCZ**

- [2016] Ferdinand K. J. Oberle, Curt D. Storlazzi, Olivia M. Cheriton, Renee K. Takesue, Daniel J. Hoover, Joshua B. Logan, Christina Runyon, Christina A. Kellogg, Cordell D. Johnson, and Peter W. Swarzenski. Physicochemical controls on zones of higher coral stress where black band disease occurs at Mākua Reef, Kauaʻi, Hawaiʻi. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Flikkema:2019:SFS**

- [2017] Maarten Flikkema and Olaf Waals. Space@Sea the floating solution. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Metaxas:2019:CHC**

- [2018] Anna Metaxas, Myriam Lacharité, and Sarah N. de Mendonça. Corrigendum: Hydrodynamic connectivity of habitats of deep-water corals in Corsair Canyon, Northwest Atlantic: a case for cross-boundary conservation. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745. See [1627].

**Seyler:2019:BAS**

- [2019] Lauren M. Seyler, Steve Tuorto, Lora R. McGuinness, Donglai Gong, and Lee J. Kerkhof. Bacterial and archaeal specific-predation in the North

Atlantic Basin. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Silver:2019:ACR**

- [2020] Jessica M. Silver, Katie K. Arkema, Robert M. Griffin, Brett Lashley, Michele Lemay, Sergio Maldonado, Stacey H. Moultrie, Mary Ruckelshaus, Steven Schill, Adelle Thomas, Katherine Wyatt, and Gregory Verutes. Advancing coastal risk reduction science and implementation by accounting for climate, ecosystems, and people. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Williams:2019:CHM**

- [2021] Ivor D. Williams, Tye L. Kindinger, Courtney S. Couch, William J. Walsh, Dwayne Minton, and Thomas A. Oliver. Can herbivore management increase the persistence of Indo-Pacific coral reefs? *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Babcock:2019:CSC**

- [2022] Russell C. Babcock, Rodrigo H. Bustamante, Elizabeth A. Fulton, Derek J. Fulton, Michael D. E. Haywood, Alistair James Hobday, Robert Kenyon, Richard James Matear, Eva E. Plagányi, Anthony J. Richardson, and Mathew A. Vanderklift. Corrigendum: Severe continental-scale impacts of climate change are happening now: Extreme climate events impact marine habitat forming communities along 45% of Australia's coast. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745. See [1876].

**Jacobsen:2019:EDE**

- [2023] Sólva Jacobsen, Eilif Gaard, Hjálmar Hátún, Petur Steingrund, Karin Margretha Húsgard Larsen, Jákup Reinert, Sólveig Rósa Ólafsdóttir, Meinhard Poulsen, and Helga Bára Mohr Vang. Environmentally driven ecological fluctuations on the Faroe Shelf revealed by fish juvenile surveys. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Tam:2019:BTU**

- [2024] Jamie C. Tam, Gavin Fay, and Jason S. Link. Better together: The uses of ecological and socio-economic indicators with end-to-end models in marine ecosystem based management. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Beal:2019:BDE**

- [2025] Andria P. Beal, Jeremy J. Kiszka, Randall S. Wells, and Jose M. Eirin-Lopez. The bottlenose dolphin epigenetic aging tool (BEAT): a molecular

age estimation tool for small cetaceans. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Carlson:2019:LUI**

- [2026] Rachel R. Carlson, Shawna A. Foo, and Gregory P. Asner. Land use impacts on coral reef health: a ridge-to-reef perspective. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Oehler:2019:DTS**

- [2027] Till Oehler, Joseph Tamborski, Shaily Rahman, Nils Moosdorf, Janis Ahrens, Corinna Mori, René Neuholz, Bernhard Schnetger, and Melanie Beck. DSi as a tracer for submarine groundwater discharge. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Fewings:2019:RSM**

- [2028] Melanie R. Fewings and Kevin S. Brown. Regional structure in the marine heat wave of summer 2015 off the Western United States. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Liang:2019:BBA**

- [2029] Chao Liang, Jack Strickland, Zonghuang Ye, Wenjian Wu, Biru Hu, and Dan Rittschof. Biochemistry of barnacle adhesion: an updated review. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Paterno:2019:GWA**

- [2030] Marta Paterno, Levent Bat, Jamila Ben Souissi, Elisa Boscari, Aurore Chassanite, Leonardo Congiu, Giuseppe Guarnieri, Claudia Kruschel, Vesna Mačić, Ilaria Anna Maria Marino, Dragos Micu, Nataliya Milchakova, Marina Panayotova, Chiara Papetti, Serge Planes, Stefan Strungaru, Valentina Ruseva Todorova, Emanuela Voutsinas, and Lorenzo Zane. A genome-wide approach to the phylogeography of the mussel *Mytilus galloprovincialis* in the Adriatic and the Black Seas. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Nowlin:2019:AUA**

- [2031] Michelle B. Nowlin, Stephen E. Roady, Everette Newton, and David W. Johnston. Applying unoccupied aircraft systems to study human behavior in marine science and conservation programs. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Tintore:2019:CSO**

- [2032] Joaquín Tintoré, Nadia Pinaridi, Enrique Álvarez-Fanjul, Eva Aguiar, Diego Álvarez-Berastegui, Marco Bajo, Rosa Balbin, Roberto Bozzano,

Bruno Buongiorno Nardelli, Vanessa Cardin, Benjamin Casas, Miguel Charcos-Llorens, Jacopo Chiggiato, Emanuela Clementi, Giovanni Coppini, Laurent Coppola, Gianpiero Cossarini, Alan Deidun, Salud Deudero, Fabrizio D’Ortenzio, Aldo Drago, Massimiliano Drudi, Ghada El Serafy, Romain Escudier, Patrick Farcy, Ivan Federico, Juan Gabriel Fernández, Christian Ferrarin, Cristina Fossi, Constantin Frangoulis, Francois Galgani, Slim Gana, Jesús García Lafuente, Marcos García Sotillo, Pierre Garreau, Isaac Gertman, Lluís Gómez-Pujol, Alessandro Grandi, Daniel Hayes, Jaime Hernández-Lasheras, Barak Herut, Emma Heslop, Karim Hilmi, Melanie Juza, George Kallos, Gerassimos Korres, Rita Lecci, Paolo Lazzari, Pablo Lorente, Svitlana Liubartseva, Ferial Louanchi, Vlado Malacic, Gianandrea Mannarini, David March, Salvatore Marullo, Elena Mauri, Lorinc Meszaros, Baptiste Murre, Laurent Mortier, Cristian Muñoz-Mas, Antonio Novelino, Dominique Obaton, Alejandro Orfila, Ananda Pascual, Sara Pensieri, Begoña Pérez Gómez, Susana Pérez Rubio, Leonidas Perivoliotis, George Petihakis, Loïc Petit de la Villéon, Jenny Pistoia, Pierre-Marie Poulain, Sylvie Pouliquen, Laura Prieto, Patrick Raimbault, Patricia Reglero, Emma Reyes, Paz Rotllan, Simón Ruiz, Javier Ruiz, Inmaculada Ruiz, Luis Francisco Ruiz-Orejón, Baris Salihoglu, Stefano Salon, Simone Sammartino, Agustín Sánchez Arcilla, Antonio Sánchez-Román, Gianmaria Sannino, Rosalia Santoleri, Rafael Sardá, Katrin Schroeder, Simona Simoncelli, Sarantis Sofianos, Georgios Sylaios, Toste Tanhua, Anna Teruzzi, Pierre Testor, Devrim Tezcan, Marc Torner, Francesco Trotta, Georg Umgiesser, Karina von Schuckmann, Giorgia Verri, Ivica Vilibic, Mustafa Yucel, Marco Zavatarelli, and George Zodiatis. Challenges for sustained observing and forecasting systems in the Mediterranean Sea. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Konh:2019:DFI**

- [2033] Bardia Konh and Matthew Parry. Design, fabrication, installation, and population of a novel fiberglass reinforced plastic coral nursery structure off the south shore of O’ahu, Hawaii. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Speich:2019:EOO**

- [2034] Sabrina Speich, Tong Lee, Frank Muller-Karger, Laura Lorenzoni, Ananda Pascual, Di Jin, Eric Delory, Gilles Reverdin, John Siddorn, Marlon R. Lewis, Nuria Marba, Pier Luigi Buttigieg, Sanae Chiba, Justin Manley, Amos Tierayangn Kabo-Bah, Kruti Desai, and Abby Ackerman. Editorial: OceanObs’19: an ocean of opportunity. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Stori:2019:TEK**

- [2035] Fernanda Terra Stori, Caiuá Mani Peres, Alexander Turra, and Robert L. Pressey. Traditional ecological knowledge supports ecosystem-based management in disturbed coastal marine social-ecological systems. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Muriel-Millan:2019:FGC**

- [2036] Luis Felipe Muriel-Millán, José Luis Rodríguez-Mejía, Elizabeth Ernestina Godoy-Lozano, Nancy Rivera-Gómez, Rosa-María Gutierrez-Rios, Daniel Morales-Guzmán, María R. Trejo-Hernández, Alejandro Estradas-Romero, and Liliana Pardo-López. Functional and genomic characterization of a *Pseudomonas aeruginosa* strain isolated from the Southwestern Gulf of Mexico reveals an enhanced adaptation for long-chain alkane degradation. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Silber:2019:VOA**

- [2037] Gregory K. Silber and Jeffrey D. Adams. Vessel operations in the Arctic, 2015–2017. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Ross:2019:CDD**

- [2038] Rebecca E. Ross, Edward J. G. Wort, and Kerry L. Howell. Combining distribution and dispersal models to identify a particularly vulnerable marine ecosystem. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Pisapia:2019:MDC**

- [2039] Chiara Pisapia, Eric Jeremy Hochberg, and Robert Carpenter. Multi-decadal change in reef-scale production and calcification associated with recent disturbances on a Lizard Island reef flat. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Salazar:2019:BNO**

- [2040] Janire Salazar, Carlos Dominguez-Carrió, Josep-Maria Gili, Stefano Ambroso, Jordi Grinyó, and Begoña Vendrell-Simón. Building a new ocean literacy approach based on a simulated dive in a submarine: a multi-sensory workshop to bring the deep sea closer to people. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Alonso:2019:GHD**

- [2041] Ana Alonso, Pilar Suárez, Yolanda Ruiz, Vladimir Dobal, and Fuencisla San Juan. Gonadal histopathological disorders in *Mytilus galloprovin-*



*cialis* male exposed to tars used in mussel farms. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**LeMenn:2019:DSD**

- [2042] Marc Le Menn, Paul Poli, Arnaud David, Jérôme Sagot, Marc Lucas, Anne O'Carroll, Mathieu Belbeoch, and Kai Herklotz. Development of surface drifting buoys for fiducial reference measurements of sea-surface temperature. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Greenan:2019:CCV**

- [2043] Blair J. W. Greenan, Nancy L. Shackell, Kiyomi Ferguson, Philip Greyson, Andrew Cogswell, David Brickman, Zeliang Wang, Adam Cook, Catherine E. Brennan, and Vincent S. Saba. Climate change vulnerability of American lobster fishing communities in Atlantic Canada. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Obura:2019:CRM**

- [2044] David O. Obura, Greta Aeby, Natchanon Amornthammarong, Ward Appeltans, Nicholas Bax, Joe Bishop, Russell E. Brainard, Samuel Chan, Pamela Fletcher, Timothy A. C. Gordon, Lew Gramer, Mishal Gudka, John Halas, James Hendee, Gregor Hodgson, Danwei Huang, Mike Jankulak, Albert Jones, Tadashi Kimura, Joshua Levy, Patricia Miloslavich, Loke Ming Chou, Frank Muller-Karger, Kennedy Osuka, Melita Samoily, Stephen D. Simpson, Karenne Tun, and Supin Wongbusarakum. Coral reef monitoring, reef assessment technologies, and ecosystem-based management. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Piontek:2019:RNL**

- [2045] Judith Piontek, Sonja Endres, Frédéric A. C. Le Moigne, Markus Schartau, and Anja Engel. Relevance of nutrient-limited phytoplankton production and its bacterial remineralization for carbon and oxygen fluxes in the Baltic Sea. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Cazenave:2019:ORL**

- [2046] Anny Cazenave, Ben Hamlington, Martin Horwath, Valentina R. Barletta, Jérôme Benveniste, Don Chambers, Petra Döll, Anna E. Hogg, Jean François Legeais, Mark Merrifield, Benoit Meyssignac, Garry Mitchum, Steve Nerem, Roland Pail, Hindumathi Palanisamy, Frank Paul, Karina von Schuckmann, and Philip Thompson. Observational requirements for long-term monitoring of the global mean sea level and

its components over the altimetry era. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Vernet:2019:IPA**

- [2047] Maria Vernet, Ingrid H. Ellingsen, Lena Seuthe, Dag Slagstad, Mattias R. Cape, and Patricia A. Matrai. Influence of phytoplankton advection on the productivity along the Atlantic water inflow to the Arctic Ocean. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Brandini:2019:CFP**

- [2048] Frederico Brandini, Luan Sayeg Michelazzo, Gabriel Ruske Freitas, Giulia Campos, Mateus Chuqui, and Luigi Jovane. Carbon flow for plankton metabolism of Saco do Mamanguá Ria, Bay of Ilha Grande, a subtropical coastal environment in the South Brazil Bight. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Fiorentino:2019:WMR**

- [2049] Laura A. Fiorentino, Robert Heitsenrether, and Warren Krug. Wave measurements from radar tide gauges. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Beckler:2019:CHA**

- [2050] Jordon S. Beckler, Ethan Arutunian, Tim Moore, Bob Currier, Eric Milbrandt, and Scott Duncan. Coastal harmful algae bloom monitoring via a sustainable, sail-powered mobile platform. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Klein:2019:OIL**

- [2051] Eduardo Klein, Ward Appeltans, Pieter Provoost, Hanieh Saeedi, Abigail Benson, Lenore Bajona, Ana Carolina Peralta, and R. Sky Bristol. OBIS infrastructure, lessons learned, and vision for the future. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Piracha:2019:SDE**

- [2052] Aqeel Piracha, Roberto Sabia, Marlene Klockmann, Luigi Castaldo, and Diego Fernández. Satellite-driven estimates of water mass formation and their spatio-temporal evolution. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Vitali:2019:BPC**

- [2053] Francesco Vitali, Manolis Mandalakis, Eva Chatzinikolaou, Thanos Dailianis, Giuliana Senatore, Enrico Casalone, Giorgio Mastromei, Simona

Sergi, Raffaella Lussu, Christos Arvanitidis, and Elena Tamburini. Benthic prokaryotic community response to polycyclic aromatic hydrocarbon chronic exposure: Importance of emission sources in Mediterranean ports. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Morton:2019:SIL**

- [2054] Peter L. Morton, William M. Landing, Alan M. Shiller, Amy Moody, Thomas D. Kelly, Michael Bizimis, John R. Donat, Eric H. De Carlo, and Joseph Shacat. Shelf inputs and lateral transport of Mn, Co, and Ce in the Western North Pacific Ocean. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Gende:2019:AWA**

- [2055] Scott M. Gende, Lawrence Vose, Jeff Baken, Christine M. Gabriele, Rich Preston, and A. Noble Hendrix. Active whale avoidance by large ships: Components and constraints of a complementary approach to reducing ship strike risk. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Walker:2019:PFA**

- [2056] Sharon L. Walker, Edward T. Baker, John E. Lupton, and Joseph A. Resing. Patterns of fine ash dispersal related to volcanic activity at West Mata Volcano, NE Lau Basin. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Christou:2019:MES**

- [2057] Maria Christou, Silvia de Juan, Vassiliki Vassilopoulou, Konstantinos I. Stergiou, and Francesc Maynou. Monitoring the environmental, social and economic dimensions of the landing obligation policy. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Schallenberg:2019:MYO**

- [2058] Christina Schallenberg, James W. Harley, Peter Jansen, Diana M. Davies, and Thomas W. Trull. Multi-year observations of fluorescence and backscatter at the Southern Ocean time series (SOTS) shed light on two distinct seasonal bio-optical regimes. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Bell:2019:DFA**

- [2059] James B. Bell, Elena Guijarro-Garcia, and Andrew Kenny. Demersal fishing in areas beyond national jurisdiction: a comparative analysis of regional fisheries management organisations. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Lahaye:2019:DCR**

- [2060] Noé Lahaye, Jonathan Gula, Andreas M. Thurnherr, Gilles Reverdin, Pascale Bouruet-Aubertot, and Guillaume Rouillet. Deep currents in the Rift Valley of the North Mid-Atlantic Ridge. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Poddar:2019:ECN**

- [2061] Shukla Poddar, Neethu Chacko, and Debadatta Swain. Estimation of chlorophyll-a in Northern Coastal Bay of Bengal using Landsat-8 OLI and Sentinel-2 MSI sensors. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Sini:2019:SSC**

- [2062] Maria Sini, Konstantinos Vatikiotis, Zoi Thanopoulou, Christos Katsoupis, Irida Maina, Stefanos Kavadas, Paraskevi K. Karachle, and Stelios Katsanevakis. Small-scale coastal fishing shapes the structure of shallow rocky reef fish in the Aegean Sea. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Holland:2019:BQR**

- [2063] Daniel S. Holland and Chris Martin. Bycatch quotas, risk pools, and cooperation in the Pacific whiting fishery. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Kim:2019:YSM**

- [2064] Yong Sun Kim, Chan Joo Jang, Jae Hoon Noh, Kyung-Tae Kim, Jae-Il Kwon, Yongchim Min, Jongmin Jeong, Jaeik Lee, In-Ki Min, Jae-Seol Shim, Do-Seong Byun, Jinkwon Kim, and Jin-Yong Jeong. A Yellow Sea monitoring platform and its scientific applications. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Yang:2019:LSP**

- [2065] Xiaolong Yang, Lili Wang, Anguo Zhang, Xing Liu, Gorka Bidegain, Humin Zong, Chunjiang Guan, Mingshan Song, Liang Qu, Wei Huang, and Xiutang Yuan. Levels, sources and potential risks of polychlorinated biphenyls and organochlorine pesticides in sediments of Qingduizi Bay, China: Does developing mariculture matter? *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Fender:2019:IPS**

- [2066] Christian K. Fender, Thomas B. Kelly, Lionel Guidi, Mark D. Ohman, Matthew C. Smith, and Michael R. Stukel. Investigating particle size-flux

relationships and the biological pump across a range of plankton ecosystem states from coastal to oligotrophic. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Ardron:2019:DED**

- [2067] Jeff A. Ardron, Erik Simon-Lledó, Daniel O. B. Jones, and Henry A. Ruhl. Detecting the effects of deep-seabed nodule mining: Simulations using megafaunal data from the Clarion-Clipperton zone. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Simon-Lledo:2019:POA**

- [2068] Erik Simon-Lledó, Samuel Thompson, Andrew Yool, Adrian Flynn, Christina Pomee, John Parianos, and Daniel O. B. Jones. Preliminary observations of the abyssal megafauna of Kiribati. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Erbe:2019:ESN**

- [2069] Christine Erbe, Sarah A. Marley, Renée P. Schoeman, Joshua N. Smith, Leah E. Trigg, and Clare Beth Embling. The effects of ship noise on marine mammals — a review. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Stephenson:2019:EBP**

- [2070] Fabrice Stephenson, Richard H. Bulmer, Michael Meredyth-Young, Lukas Meysick, Judi E. Hewitt, and Carolyn J. Lundquist. Effects of benthic protection extent on recovery dynamics of a conceptual seafloor community. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Morison:2019:SIP**

- [2071] Françoise Morison, Elizabeth Harvey, Gayantonia Franzè, and Susanne Menden-Deuer. Storm-induced predator-prey decoupling promotes springtime accumulation of North Atlantic phytoplankton. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Hodgson:2019:IRA**

- [2072] Emma E. Hodgson, Timothy E. Essington, Jameal F. Samhouri, Edward H. Allison, Nathan J. Bennett, Ann Bostrom, Alison C. Cullen, Stephen Kasperski, Phillip S. Levin, and Melissa R. Poe. Integrated risk assessment for the blue economy. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**Roberts:2019:MHH**

- [2073] Shane D. Roberts, Paul D. Van Ruth, Clinton Wilkinson, Stella S. Bastianello, and Matthew S. Bansemer. Marine heatwave, harmful algae blooms and an extensive fish kill event during 2013 in South Australia. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Tzafriri-Milo:2019:PUI**

- [2074] Roni Tzafriri-Milo, Tal Benaltabet, Adi Torfstein, and Noa Shenkar. The potential use of invasive ascidians for biomonitoring heavy metal pollution. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Fawkes:2019:BSF**

- [2075] Kyle William Fawkes and Valerie Cummins. Beneath the surface of the First World Ocean Assessment: an investigation into the global process' support for sustainable development. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Lilkendey:2019:FSG**

- [2076] Julian Lilkendey, Timo Pisternick, Sarah I. Neumann, Danishta Dumur Neelayya, Stefanie Bröhl, Yashvin Neehaul, and Nils Moosdorf. Fresh submarine groundwater discharge augments growth in a reef fish. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Orejarena-Rondon:2019:CID**

- [2077] Andrés F. Orejarena-Rondón, Juan M. Sayol, Marta Marcos, Luis Otero, Juan C. Restrepo, Ismael Hernández-Carrasco, and Alejandro Orfila. Coastal impacts driven by sea-level rise in Cartagena de Indias. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Viard:2019:CDD**

- [2078] Frédérique Viard, Charlotte Roby, Xavier Turon, Sarah Bouchemousse, and John Bishop. Cryptic diversity and database errors challenge non-indigenous species surveys: an illustration with *Botrylloides* spp. in the English Channel and Mediterranean Sea. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Esposito:2019:ASC**

- [2079] Mario Esposito, Eric P. Achterberg, Lennart T. Bach, Douglas P. Connelly, Ulf Riebesell, and Jan Taucher. Application of stable carbon isotopes in a subtropical North Atlantic MesocosmStudy: a new approach to assess CO<sub>2</sub> effects on the marine carbon cycle. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Hernandez-Ayon:2019:DCS**

- [2080] Jose M. Hernandez-Ayon, Aurélien Paulmier, Veronique Garcon, Joel Sudre, Ivonne Montes, Cecilia Chapa-Balcorta, Giovanni Durante, Boris Dewitte, Christophe Maes, and Marine Bretagnon. Dynamics of the carbonate system across the Peruvian Oxygen Minimum Zone. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Xiao:2019:RLN**

- [2081] Xi Xiao, Susana Agusti, Fang Lin, Caicai Xu, Yan Yu, Yaoru Pan, Ke Li, Jiaping Wu, and Carlos M. Duarte. Resource (light and nitrogen) and density-dependence of seaweed growth. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Chambers:2019:MCT**

- [2082] Rosanna Chambers, Natalie Hart, Sue Ranger, Anna Birney, Corina Angheloiu, Jessica Loring, Sian Williams, and Louisa Hooper. The marine CoLAB: Taking a CoLABorative, values based approach to connect people to the ocean. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Merino:2019:ANA**

- [2083] Gorka Merino, Haritz Arrizabalaga, Igor Arregui, Josu Santiago, Hilario Murua, Agurtzane Urtizbera, Eider Andonegi, Paul De Bruyn, and Laurence T. Kell. Adaptation of North Atlantic albacore fishery to climate change: Yet another potential benefit of harvest control rules. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**vonAmmon:2019:LED**

- [2084] Ulla von Ammon, Susanna A. Wood, Olivier Laroche, Anastasija Zaiko, Shane D. Lavery, Graeme J. Inglis, and Xavier Pochon. Linking environmental DNA and RNA for improved detection of the marine invasive fanworm *sabella spallanzanii*. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Tunca:2019:CFO**

- [2085] Sezgin Tunca, Martin Lindegren, Lars Ravn-Jonsen, and Marko Lindroos. Cooperative fisheries outperform non-cooperative ones in the Baltic Sea under different climate scenarios. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Capotondi:2019:ONS**

- [2086] Antonietta Capotondi, Michael Jacox, Chris Bowler, Maria Kavanaugh, Patrick Lehodey, Daniel Barrie, Stephanie Brodie, Samuel Chaffron,

Wei Cheng, Daniela F. Dias, Damien Eveillard, Lionel Guidi, Daniele Iudicone, Nicole S. Lovenduski, Janet A. Nye, Ivonne Ortiz, Douglas Pirhalla, Mercedes Pozo Buil, Vincent Saba, Scott Sheridan, Samantha Siedlecki, Aneesh Subramanian, Colomban de Vargas, Emanuele Di Lorenzo, Scott C. Doney, Albert J. Hermann, Terrence Joyce, Mark Merrifield, Arthur J. Miller, Fabrice Not, and Stephane Pesant. Observational needs supporting marine ecosystems modeling and forecasting: From the global ocean to regional and coastal systems. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Sheth:2019:BFF**

- [2087] Maya U. Sheth, Sarah K. Kwartler, Emma R. Schmaltz, Sarah M. Hoskinson, E. J. Martz, Meagan M. Dunphy-Daly, Thomas F. Schultz, Andrew J. Read, William C. Eward, and Jason A. Somarelli. Bioengineering a future free of marine plastic waste. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Surma:2019:HRT**

- [2088] Szymon Surma, Villy Christensen, Rajeev Kumar, Cameron H. Ainsworth, and Tony J. Pitcher. High-resolution trophic models reveal structure and function of a Northeast Pacific ecosystem. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Barracosa:2019:OLM**

- [2089] Helena Barracosa, Carmen B. de los Santos, Márcio Martins, Cátia Freitas, and Rui Santos. Ocean literacy to mainstream ecosystem services concept in formal and informal education: The example of coastal ecosystems of Southern Portugal. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Forrest:2019:EPP**

- [2090] Andrew Forrest, Luca Giacobazzi, Sarah Dunlop, Julia Reisser, David Tickler, Alan Jamieson, and Jessica J. Meeuwig. Eliminating plastic pollution: How a voluntary contribution from industry will drive the circular plastics economy. *Frontiers in Marine Science*, 6, September 2019. ISSN 2296-7745.

**CoutinhodaMotta-Neto:2019:OKS**

- [2091] Clóvis Coutinho da Motta-Neto, Marcelo de Bello Cioffi, Gideão Wagner Werneck Félix da Costa, Karlla Danielle Jorge Amorim, Luiz Antonio Carlos Bertollo, Roberto Ferreira Artoni, and Wagner Franco Molina. Overview on karyotype stasis in Atlantic grunts (Eupercaria, Haemulidae) and the evolutionary extensions for other marine fish groups. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.



**Arnosti:2019:EQW**

- [2092] Carol Arnosti, Kai-Uwe Hinrichs, Sarah Coffinet, Heinz Wilkes, and Silvio Pantoja. The enduring questions: What's for dinner? Where's my knife? ... and can I use my fingers? (Unanswered) questions related to organic matter and microbes in marine sediments. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Avendano:2019:DAS**

- [2093] Miguel Avendaño, Marcela Cantillán, and José M. Riascos. The decreasing availability of settlement surfaces affects the transition from larvae to early recruitment of the scallop *Argopecten purpuratus* through El Niño and La Niña episodes. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Brooks:2019:MMP**

- [2094] Cassandra M. Brooks, Graham Epstein, and Natalie C. Ban. Managing Marine Protected Areas in remote areas: The case of the Subantarctic Heard and McDonald Islands. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Bojko:2019:ASS**

- [2095] Barbara Bojko, Bora Onat, Ezel Boyaci, Eleftheria Psillakis, Thanos Dailianis, and Janusz Pawliszyn. Application of in situ solid-phase microextraction on Mediterranean sponges for untargeted exometabolome screening and environmental monitoring. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Parmentier:2019:TBR**

- [2096] Koen F. V. Parmentier, Yves Verhaegen, Bavo P. De Witte, Stefan Hoffman, Daan H. R. Delbare, Patrick M. Roose, Ketil D. E. Hylland, Thierry Burgeot, Guy J. Smagghe, and Kris Cooreman. Tributyltin: a bottom-up regulator of the *Crangon crangon* population? *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**LeMoigne:2019:POC**

- [2097] Frédéric A. C. Le Moigne. Pathways of organic carbon downward transport by the oceanic biological carbon pump. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Jaspers:2019:MDC**

- [2098] Cornelia Jaspers, Nancy Weiland-Bräuer, Martin A. Fischer, Sven Künzel, Ruth A. Schmitz, and Thorsten B. H. Reusch. Microbiota

differences of the comb jelly *Mnemiopsis leidyi* in native and invasive sub-populations. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Schulz:2019:UAO**

- [2099] Kai G. Schulz, Simon Hartley, and Bradley Eyre. Upwelling amplifies ocean acidification on the East Australian Shelf: Implications for marine ecosystems. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Wu:2019:AIG**

- [2100] Zhihao Wu, Lijuan Wang, Yunliang Lu, Xiangping Zhu, Xinlu Yue, and Feng You. Artificial induction and genetic structure analysis of tetraploid turbot *Scophthalmus maximus*. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**TeixeiradeLima:2019:ACD**

- [2101] Domênica Teixeira de Lima, Gleyci Aparecida Oliveira Moser, Fernanda Reinhardt Piedras, Leticia Cotrim da Cunha, Denise Rivera Tenenbaum, Márcio Murilo Barboza Tenório, Marcos Vinícius Pereira Borges de Campos, Thais de Oliveira Cornejo, and José Juan Barrera-Alba. Abiotic changes driving microphytoplankton functional diversity in Admiralty Bay, King George Island (Antarctica). *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Sequeira:2019:OOS**

- [2102] Ana Micaela Martins Sequeira, Graeme Clive Hays, David W. Sims, Víctor M. Eguíluz, Jorge P. Rodríguez, Michelle R. Heupel, Rob Harcourt, Hannah Calich, Nuno Queiroz, Daniel Paul Costa, Juan Fernández-Gracia, Luciana C. Ferreira, Simon David Goldsworthy, Mark A. Hindell, Mary-Anne Lea, Mark G. Meekan, Anthony M. Pagano, Scott A. Shaffer, Julia Reisser, Michele Thums, Michael Weise, and Carlos M. Duarte. Overhauling ocean spatial planning to improve marine megafauna conservation. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Hampel:2019:STE**

- [2103] Justyna J. Hampel, Mark J. McCarthy, Megan H. Reed, and Silvia E. Newell. Short term effects of Hurricane Irma and cyanobacterial blooms on ammonium cycling along a freshwater–estuarine continuum in South Florida. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Townsend:2019:PIE**

- [2104] Howard Townsend, Chris J. Harvey, Yvonne deReynier, Dawn Davis, Stephani G. Zador, Sarah Gaichas, Mariska Weijerman, Elliott L. Hazen, and Isaac C. Kaplan. Progress on implementing ecosystem-based fisheries management in the United States through the use of ecosystem models and analysis. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**vanEmmerik:2019:SPD**

- [2105] Tim van Emmerik, Romain Tramoy, Caroline van Calcar, Soline Alligant, Robin Treilles, Bruno Tassin, and Johnny Gasperi. Seine plastic debris transport tenfolded during increased river discharge. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Bax:2019:CRS**

- [2106] Nicholas J. Bax, Patricia Miloslavich, Frank Edgar Muller-Karger, Valerie Allain, Ward Appeltans, Sonia Dawn Batten, Lisandro Benedetti-Cecchi, Pier Luigi Buttigieg, Sanae Chiba, Daniel Paul Costa, J. Emmett Duffy, Daniel C. Dunn, Craig Richard Johnson, Raphael M. Kudela, David Obura, Lisa-Maria Rebelo, Yunne-Jai Shin, Samantha Elisabeth Simmons, and Peter Lloyd Tyack. Corrigendum: A response to scientific and societal needs for marine biological observations. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745. See response [1861].

**Walcutt:2019:VRO**

- [2107] Noah L. Walcutt, Benjamin Knörlein, Tom Sgouros, Ivona Cetinić, and Melissa M. Omand. Virtual reality and oceanography: Overview, applications, and perspective. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Barkley:2019:WCS**

- [2108] Yvonne Barkley, Erin M. Oleson, Julie N. Oswald, and Erik C. Franklin. Whistle classification of sympatric false killer whale populations in Hawaiian waters yields low accuracy rates. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Otero:2019:OLK**

- [2109] Rosa M. Fernández Otero, Georgia A. Bayliss-Brown, and Martha Papanastasiou. Ocean literacy and knowledge transfer synergies in support of a sustainable blue economy. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Erbe:2019:MEN**

- [2110] Christine Erbe, Michael Dähne, Jonathan Gordon, Heike Herata, Dorian S. Houser, Sven Koschinski, Russell Leaper, Robert McCauley, Brian Miller, Mirjam Müller, Anita Murray, Julie N. Oswald, Amy R. Scholik-Schlomer, Max Schuster, Ilse C. Van Opzeeland, and Vincent M. Janik. Managing the effects of noise from ship traffic, seismic surveying and construction on marine mammals in Antarctica. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Dimarchopoulou:2019:EME**

- [2111] Donna Dimarchopoulou, Ioannis Keramidas, Konstantinos Tsagarakis, and Athanassios C. Tsikliras. Ecosystem models and effort simulations of an untrawled gulf in the Central Aegean Sea. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Katlein:2019:MRS**

- [2112] Christian Katlein, Matthieu Labaste, and Mario Hoppmann. Manual recovery of a sea ice based ocean profiler. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Gownaris:2019:GPI**

- [2113] Natasha J. Gownaris, Christine M. Santora, John B. Davis, and Ellen K. Pikitch. Gaps in protection of important ocean areas: a spatial meta-analysis of ten global mapping initiatives. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**He:2019:SDS**

- [2114] Cheng He, Baolu Zhang, Lei Wei, Wenchao Yu, Qiuyun Jiang, Xiaona Wang, Wen Guo, and Xiaotong Wang. Silicon dioxide (SiO<sub>2</sub>) is the most important component of spots on the inner surface of *Mactra veneriformis* shells. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Venera-Ponton:2019:PSR**

- [2115] Dagoberto E. Venera-Pontón, William E. Schmidt, and Suzanne Fredericq. Population structure of the red macroalga *Botryocladia occidentalis* (Børgesen) Kylin (Rhodymeniaceae, Rhodymeniales) in the Gulf of Mexico before the *Deepwater Horizon* oil spill. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Sastri:2019:PSS**

- [2116] Akash R. Sastri, James R. Christian, Eric P. Achterberg, Dariia Atamanchuk, Justin J. H. Buck, Philip Bresnahan, Patrick J. Duke, Wiley

Evans, Stephen F. Gonski, Bruce Johnson, S. Kim Juniper, Steve Mihaly, Lisa A. Miller, Mike Morley, Dave Murphy, Shin ichiro Nakaoka, Tsuneo Ono, George Parker, Kyle Simpson, and Tomohiko Tsunoda. Perspectives on in situ sensors for ocean acidification research. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Amorim:2019:SSD**

- [2117] Patrícia Amorim, Pedro Sousa, Ernesto Jardim, and Gui M. Menezes. Sustainability status of data-limited fisheries: Global challenges for snapper and grouper. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Hoffmann:2019:IGM**

- [2118] Ralf Hoffmann, Adil Yousif Al-Handal, Angela Wulff, Dolores Deregibus, Katharina Zacher, María Liliana Quartino, Frank Wenzhöfer, and Ulrike Braeckman. Implications of glacial melt-related processes on the potential primary production of a microphytobenthic community in Potter Cove (Antarctica). *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Dang:2019:APE**

- [2119] Kieu Van Dang, Mattia Pierangelini, Stéphane Roberty, and Pierre Cardol. Alternative photosynthetic electron transfers and bleaching phenotypes upon acute heat stress in *Symbiodinium* and *Breviolum* spp. (Symbiodiniaceae) in culture. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Murillo:2019:EMM**

- [2120] Alejandro A. Murillo, Verónica Molina, Julio Salcedo-Castro, and Chris Harrod. Editorial: Marine microbiome and biogeochemical cycles in marine productive areas. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Doropoulos:2019:TIS**

- [2121] Christopher Doropoulos, Focco Vons, Jesper Elzinga, Remment ter Hofstede, Kinam Salee, Mark van Koningsveld, and Russell C. Babcock. Testing industrial-scale coral restoration techniques: Harvesting and culturing wild coral-spawn slicks. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Rossel:2019:CRB**

- [2122] Sven Rossel, Sahar Khodami, and Pedro Martínez Arbizu. Comparison of rapid biodiversity assessment of meiobenthos using MALDI-TOF MS

and metabarcoding. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Stanev:2019:FML**

- [2123] Emil V. Stanev and Marcel Ricker. The fate of marine litter in semi-enclosed seas: a case study of the Black Sea. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Tsikliras:2019:BRV**

- [2124] Athanassios C. Tsikliras. Book review: *Vanishing Fish: Shifting Baselines and the Future of Global Fisheries*. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Zaquin:2019:SBL**

- [2125] Tal Zaquin, Paul Zaslansky, Iddo Pinkas, and Tali Mass. Simulating bleaching: Long-term adaptation to the dark reveals phenotypic plasticity of the Mediterranean Sea coral *oculina patagonica*. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Barnes:2019:EBE**

- [2126] David K. A. Barnes, Chester J. Sands, Andrew Richardson, and Ness Smith. Extremes in benthic ecosystem services; blue carbon natural capital shallower than 1000 m in isolated, small, and young Ascension Island's EEZ. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Saba:2019:DVP**

- [2127] Grace K. Saba, Elizabeth Wright-Fairbanks, Baoshan Chen, Wei-Jun Cai, Andrew H. Barnard, Clayton P. Jones, Charles W. Branham, Kui Wang, and Travis Miles. The development and validation of a profiling glider deep ISFET-based pH sensor for high resolution observations of coastal and ocean acidification. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**deFroe:2019:BON**

- [2128] Evert de Froe, Lorenzo Rovelli, Ronnie N. Glud, Sandra R. Maier, Gerard Duineveld, Furu Mienis, Marc Lavaleye, and Dick van Oevelen. Benthic oxygen and nitrogen exchange on a cold-water coral reef in the North-East Atlantic Ocean. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**LaPeyre:2019:ORN**

- [2129] Megan K. La Peyre, Danielle Aguilar Marshall, Lindsay S. Miller, and Austin T. Humphries. Oyster reefs in Northern Gulf of Mexico estu-

aries harbor diverse fish and decapod crustacean assemblages: a meta-synthesis. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Wisshak:2019:EDE**

- [2130] Max Wisshak, Hermann Neumann, Andres Rüggeberg, Janina V. Büscher, Peter Linke, and Jacek Raddatz. Epibenthos dynamics and environmental fluctuations in two contrasting polar carbonate factories (Mosselbukta and Bjørnøy-Banken, Svalbard). *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Hansen:2019:MSU**

- [2131] Cecilie Hansen, Richard D. M. Nash, Kenneth F. Drinkwater, and Solfrid Sætre Hjøllo. Management scenarios under climate change — a study of the Nordic and Barents Seas. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Olsen:2019:EEE**

- [2132] Erik Olsen, Cecilie Hansen, Ina Nilsen, Holly Perryman, and Frode Vikebø. Ecological effects and ecosystem shifts caused by mass mortality events on early life stages of fish. *Frontiers in Marine Science*, 6, October 2019. ISSN 2296-7745.

**Russo:2019:PFF**

- [2133] Tommaso Russo, Simone Franceschini, Lorenzo D'Andrea, Michele Scardi, Antonio Parisi, and Stefano Cataudella. Predicting fishing footprint of trawlers from environmental and fleet data: an application of artificial neural networks. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Adame:2019:TCW**

- [2134] Maria Fernanda Adame, Melanie E. Roberts, David P. Hamilton, Christopher E. Ndehedehe, Vanessa Reis, Jing Lu, Matthew Griffiths, Graeme Curwen, and Mike Ronan. Tropical coastal wetlands ameliorate nitrogen export during floods. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Wright:2019:GEE**

- [2135] Rachel M. Wright, Adrienne M. S. Correa, Lucinda A. Quigley, Lory Z. Santiago-Vázquez, Kathryn E. F. Shamberger, and Sarah W. Davies. Gene expression of endangered coral (*Orbicella* spp.) in flower Garden Banks National Marine Sanctuary after Hurricane Harvey. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Lu:2019:MLA**

- [2136] Kaijun Lu and Zhanfei Liu. Molecular level analysis reveals changes in chemical composition of dissolved organic matter from South Texas rivers after high flow events. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Liu:2019:AED**

- [2137] Yuan Liu, Gary H. Wikfors, Julie M. Rose, Richard S. McBride, Lisa M. Milke, and Renee Mercaldo-Allen. Application of environmental DNA metabarcoding to spatiotemporal finfish community assessment in a temperate embayment. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Gates:2019:ERO**

- [2138] Andrew R. Gates, Tammy Horton, Amanda Serpell-Stevens, Chester Chandler, Laura J. Grange, Katleen Robert, Alexander Bevan, and Daniel O. B. Jones. Ecological role of an offshore industry artificial structure. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Marie:2019:FRK**

- [2139] Amandine D. Marie, Christophe Herbinger, Philippe Fullsack, and Ciro Rico. First reconstruction of kinship in a scalloped hammerhead shark aggregation reveals the mating patterns and breeding sex ratio. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Bunke:2019:NAS**

- [2140] Dennis Bunke, Thomas Leipe, Matthias Moros, Claudia Morys, Franz Tauber, Joonas J. Virtasalo, Stefan Forster, and Helge W. Arz. Natural and anthropogenic sediment mixing processes in the South-Western Baltic Sea. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Aeby:2019:PTL**

- [2141] Greta S. Aeby, Blake Ushijima, Justin E. Campbell, Scott Jones, Gareth J. Williams, Julie L. Meyer, Claudia Häse, and Valerie J. Paul. Pathogenesis of a tissue loss disease affecting multiple species of corals along the Florida Reef Tract. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Germanov:2019:MMP**

- [2142] Elitza S. Germanov, Andrea D. Marshall, I. Gede Hendrawan, Ryan Admiraal, Christoph A. Rohner, Janis Argeswara, Raka Wulandari, Mahardika R. Himawan, and Neil R. Loneragan. Microplastics on the menu:



Plastics pollute Indonesian manta ray and whale shark feeding grounds. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Lan:2019:HSI**

- [2143] Yi Lan, Jin Sun, Weipeng Zhang, Ting Xu, Yu Zhang, Chong Chen, Dong Feng, Hongbin Wang, Jun Tao, Jian-Wen Qiu, and Pei-Yuan Qian. Host-symbiont interactions in deep-sea chemosymbiotic vesicomysid clams: Insights from transcriptome sequencing. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Andrew:2019:IAI**

- [2144] Sarah M. Andrew, Hugh T. Morell, Robert F. Strzepek, Philip W. Boyd, and Michael J. Ellwood. Iron availability influences the tolerance of Southern Ocean phytoplankton to warming and elevated irradiance. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Yang:2019:HLP**

- [2145] Fan Yang, Wasiqi Yuan, Yuhan Ma, Srinivasan Balamurugan, Hong-Ye Li, Songling Fu, and Lifang Wu. Harnessing the lipogenic potential of  $\Delta 6$ -desaturase for simultaneous hyperaccumulation of lipids and polyunsaturated fatty acids in *Nannochloropsis oceanica*. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Mudge:2019:AEC**

- [2146] Laura Mudge, Catherine Alves, Baruch Figueroa-Zavala, and John Bruno. Assessment of elkhorn coral populations and associated herbivores in Akumal, Mexico. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Selig:2019:DPH**

- [2147] Gina M. Selig, Amanda N. Netburn, and Mashkooor Malik. Distributions of the pelagic holothurian pelagothuria in the Central Pacific Ocean as observed by remotely-operated vehicle surveys. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Donnarumma:2019:EBC**

- [2148] Luigia Donnarumma, Luca Appolloni, Elena Chianese, Renato Bruno, Elisa Baldrighi, Rosanna Guglielmo, Giovanni F. Russo, Daniela Zeppilli, and Roberto Sandulli. Environmental and benthic community patterns of the shallow hydrothermal area of Secca Delle Fumose (Baia, Naples, Italy). *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Peixoto:2019:CMC**

- [2149] Raquel S. Peixoto, Michael Sweet, and David G. Bourne. Customized medicine for corals. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Wang:2019:PLE**

- [2150] Jason Wang, Michael Gregory Janech, and Karen Gray Burnett. Protein-level evidence of novel  $\beta$ -type hemocyanin and heterogeneous subunit usage in the Pacific whiteleg shrimp, *Litopenaeus vannamei*. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Lehtonen:2019:MCW**

- [2151] Kari K. Lehtonen, Giuseppe d’Errico, Samuli Korpinen, Francesco Regoli, Heidi Ahkola, Tanja Kinnunen, and Anu Lastumäki. Mussel caging and the weight of evidence approach in the assessment of chemical contamination in coastal waters of Finland (Baltic Sea). *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Black:2019:TUM**

- [2152] Jeffrey E. Black, Kathrin Kopke, and Cathal O’Mahony. A trip upstream to mitigate marine plastic pollution — a perspective focused on the MSFD and WFD. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Agudo-Adriani:2019:SCB**

- [2153] Esteban A. Agudo-Adriani, José Cappelletto, Françoise Cavada-Blanco, and Aldo Cróquer. Structural complexity and benthic cover explain reef-scale variability of fish assemblages in Los Roques National Park, Venezuela. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Dee:2019:FRE**

- [2154] Sylvia G. Dee, Mark A. Torres, Rowan C. Martindale, Anna Weiss, and Kristine L. DeLong. The future of reef ecosystems in the Gulf of Mexico: Insights from coupled climate model simulations and ancient hot-house reefs. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Castellan:2019:YCD**

- [2155] Giorgio Castellan, Lorenzo Angeletti, Marco Taviani, and Paolo Montagna. The yellow coral *Dendrophyllia cornigera* in a warming ocean. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Dutton:2019:EIE**

- [2156] Peter H. Dutton, Lisa Komoroske, Lars Bejder, and Mark Meekan. Editorial: Integrating emerging technologies into marine megafauna conservation management. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Quintanilla:2019:DIE**

- [2157] Elena Quintanilla, Teresa Madurell, Thomas Wilke, and Juan A. Sánchez. Dynamic interplay of ENSO events and local hydrodynamic parameters drives demography and health status of gorgonian sea fan populations on a remote tropical Eastern Pacific island. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Gallo:2019:BMS**

- [2158] Natalya D. Gallo, Elizabeth Drenkard, Andrew R. Thompson, Edward D. Weber, Deb Wilson-Vandenberg, Sam McClatchie, J. Anthony Koslow, and Brice X. Semmens. Bridging from monitoring to solutions-based thinking: Lessons from CalCOFI for understanding and adapting to marine climate change impacts. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Gladstone-Gallagher:2019:OTN**

- [2159] Rebecca V. Gladstone-Gallagher, Julie A. Hope, Richard H. Bulmer, Dana E. Clark, Fabrice Stephenson, Stephanie Mangan, Vera Rullens, Ewa Siwicka, Samuel F. Thomas, Conrad A. Pilditch, Candida Savage, and Simon F. Thrush. Old tools, new ways of using them: Harnessing expert opinions to plan for surprise in marine socio-ecological systems. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Samson:2019:ECA**

- [2160] Julia E. Samson, Marco Ghisalberti, Matthew Philip Adams, Matthew A. Reidenbach, Matthew H. Long, Uri Shavit, and Virginia B. Pasour. Editorial: Canopies in aquatic ecosystems: Integrating form, function, and biophysical processes. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Taylor:2019:PCO**

- [2161] Daniel Taylor, Camille Saurel, Pernille Nielsen, and Jens Kjerulf Petersen. Production characteristics and optimization of mitigation mussel culture. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Wall:2019:LIC**

- [2162] Marlene Wall, Fiorella Prada, Jan Fietzke, Erik Caroselli, Zvy Dubinsky, Leonardo Brizi, Paola Fantazzini, Silvia Franzellitti, Tali Mass, Paolo Montagna, Giuseppe Falini, and Stefano Goffredo. Linking internal carbonate chemistry regulation and calcification in corals growing at a Mediterranean CO<sub>2</sub> vent. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Romer:2019:AFG**

- [2163] Miriam Römer, Chieh-Wei Hsu, Markus Loher, Ian R. MacDonald, Christian dos Santos Ferreira, Thomas Pape, Susan Mau, Gerhard Bohrmann, and Heiko Sahling. Amount and fate of gas and oil discharged at 3400 m water depth from a natural seep site in the Southern Gulf of Mexico. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Thompson:2019:DAC**

- [2164] Anne W. Thompson and Kathleen Kouba. Differential activity of coexisting *Prochlorococcus* ecotypes. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**MosqueraGimenez:2019:OCN**

- [2165] Ángela Mosquera Giménez, Pedro Vélez-Belchí, Jesús Rivera, Safo Piñeiro, Noelia Fajar, Verónica Caínzos, Rosa Balbín, Juan Antonio Jiménez Aparicio, Carlos Dominguez-Carrió, Jordi Blasco-Ferre, Marina Carreiro-Silva, Telmo Morato, Patricia Puerta, and Covadonga Orejas. Ocean circulation over North Atlantic underwater features in the path of the Mediterranean outflow water: The Ormonde and Formigas Seamounts, and the Gazul Mud Volcano. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745. See corrigendum [2213].

**Amores:2019:OEM**

- [2166] Angel Amores, Gabriel Jordà, and Sebastià Monserrat. Ocean eddies in the Mediterranean Sea from satellite altimetry: Sensitivity to satellite track location. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Glaser:2019:FIU**

- [2167] Sarah M. Glaser, Paige M. Roberts, and Kaija J. Hurlburt. Foreign illegal, unreported, and unregulated fishing in Somali waters perpetuates conflict. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Klein:2019:CNT**

- [2168] Shannon G. Klein, Kylie A. Pitt, Cathy H. Lucas, Shiou-Han Hung, Sebastian Schmidt-Roach, Manuel Aranda, and Carlos M. Duarte. Corrigendum: Night-time temperature reprieves enhance the thermal tolerance of a symbiotic cnidarian. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745. See [1425].

**Bushnell:2019:QAO**

- [2169] Mark Bushnell, Christoph Waldmann, Steffen Seitz, Earle Buckley, Mario Tamburri, Juliet Hermes, Emma Henslop, and Ana Lara-Lopez. Quality assurance of oceanographic observations: Standards and guidance adopted by an international partnership. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Garrabou:2019:CDT**

- [2170] Joaquim Garrabou, Daniel Gómez-Gras, Jean-Baptiste Ledoux, Cristina Linares, Nathaniel Bensoussan, Paula López-Sendino, Hocein Bazairi, Free Espinosa, Mohamed Ramdani, Samir Grimes, Mouloud Benabdi, Jamila Ben Souissi, Emna Soufi, Faten Khamassi, Raouia Ghanem, Oscar Ocaña, Alfonso Ramos-Esplà, Andres Izquierdo, Irene Anton, Esther Rubio-Portillo, Carmen Barbera, Emma Cebrian, Nuria Marbà, Iris E. Hendriks, Carlos M. Duarte, Salud Deudero, David Díaz, Maite Vázquez-Luis, Elvira Alvarez, Bernat Hereu, Diego K. Kersting, Andrea Gori, Núria Viladrich, Stephane Sartoretto, Ivane Pairaud, Sandrine Ruitton, Gérard Pergent, Christine Pergent-Martini, Elodie Rouanet, Nuria Teixidó, Jean-Pierre Gattuso, Simonetta Frascchetti, Irene Rivetti, Ernesto Azzurro, Carlo Cerrano, Massimo Ponti, Eva Turicchia, Giorgio Bavestrello, Riccardo Cattaneo-Vietti, Marzia Bo, Marco Bertolino, Monica Montefalcone, Giovanni Chimienti, Daniele Grech, Gil Rilov, Inci Tuney Kizilkaya, Zafer Kizilkaya, Nur Eda Topçu, Vasilis Gerovasileiou, Maria Sini, Tatjana Bakran-Petricioli, Silvija Kipson, and Jean G. Harmelin. Collaborative database to track mass mortality events in the Mediterranean Sea. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Thorsnes:2019:SDH**

- [2171] Terje Thorsnes, Shyam Chand, Harald Brunstad, Aivo Lepland, and Petter Lågstad. Strategy for detection and high-resolution characterization of authigenic carbonate cold seep habitats using ships and autonomous underwater vehicles on glacially influenced terrain. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Waller:2019:PPR**

- [2172] Rhian G. Waller, Robert P. Stone, Lauren N. Rice, Julia Johnstone, Ashley M. Rossin, Elise Hartill, Keri Feehan, and Cheryl L. Morrison. Phenotypic plasticity or a reproductive dead end? *Primnoa pacifica* (Cnidaria: Alcyonacea) in the Southeastern Alaska region. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Schuler:2019:HWM**

- [2173] Alicia R. Schuler, Sarah Piwetz, Jacopo Di Clemente, David Steckler, Franz Mueter, and Heidi C. Pearson. Humpback whale movements and behavior in response to whale-watching vessels in Juneau, AK. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Rogers:2019:DNS**

- [2174] Troy A. Rogers, Anthony J. Fowler, Michael A. Steer, and Bronwyn M. Gillanders. Discriminating natal source populations of a temperate marine fish using larval otolith chemistry. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Gawarkiewicz:2019:CAM**

- [2175] Glen Gawarkiewicz, Ke Chen, Jacob Forsyth, Frank Bahr, Anna M. Mercer, Aubrey Ellertson, Paula Fratantoni, Harvey Seim, Sara Haines, and Lu Han. Characteristics of an advective marine heatwave in the Middle Atlantic Bight in early 2017. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Henry:2019:NHI**

- [2176] Joseph A. Henry, Keri L. O'Neil, and Joshua T. Patterson. Native herbivores improve sexual propagation of threatened staghorn coral *Acropora cervicornis*. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Chion:2019:MAU**

- [2177] Clément Chion, Dominic Lagrois, and Jérôme Dupras. A meta-analysis to understand the variability in reported source levels of noise radiated by ships from opportunistic studies. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Morgan:2019:FSA**

- [2178] Nicole B. Morgan, Savannah Goode, E. Brendan Roark, and Amy R. Baco. Fine scale assemblage structure of benthic invertebrate megafauna on the North Pacific Seamount Mokumanamana. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Goncalves-Araujo:2019:HDV**

- [2179] Rafael Gonçalves-Araujo, Rüdiger Röttgers, Lumi Haraguchi, and Frederico Pereira Brandini. Hydrography-driven variability of optically active constituents of water in the South Brazilian Bight: Biogeochemical implications. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Trew:2019:UCI**

- [2180] Brittany T. Trew, Hedley S. Grantham, Christian Barrientos, Tim Collins, Philip D. Doherty, Angela Formia, Brendan J. Godley, Sara M. Maxwell, Richard J. Parnell, Stephen K. Pikesley, Dominic Tilley, Matthew J. Witt, and Kristian Metcalfe. Using cumulative impact mapping to prioritize marine conservation efforts in Equatorial Guinea. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Marie:2019:DAJ**

- [2181] Amandine D. Marie, Brian L. Stockwell, and Ciro Rico. DNA analysis of juvenile scalloped hammerhead sharks *Sphyrna lewini* (Griffith, 1834) reveals multiple breeding populations and signs of adaptive divergence in the South Pacific. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Doi:2019:ITM**

- [2182] Takeshi Doi, Andrea Storto, Takuya Fukuoka, Hiroyuki Suganuma, and Katsufumi Sato. Impacts of temperature measurements from sea turtles on seasonal prediction around the Arafura Sea. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Touma:2019:NAC**

- [2183] Jorge Touma, Killen Ko García, Scarleth Bravo, Francisco Leiva, Javier Moya, Luis Vargas-Chacoff, Alberto Reyes, and Rodrigo Vidal. De novo assembly and characterization of Patagonian toothfish transcriptome and develop of EST-SSR markers for population genetics. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Fellous:2019:GSC**

- [2184] Alexandre Fellous and Lisa N. S. Shama. Genome survey of chromatin-modifying enzymes in threespine stickleback: a crucial epigenetic toolkit for adaptation? *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Garcon:2019:MOW**

- [2185] Véronique Garçon, Johannes Karstensen, Artur Palacz, Maciej Telszewski, Tony Aparco Lara, Denise Breitburg, Francisco Chavez, Paulo Coelho, Marcela Cornejo-D'Ottone, Carmen Santos, Björn Fiedler, Natalya D. Gallo, Marilaure Grégoire, Dimitri Gutierrez, Martin Hernandez-Ayon, Kirsten Isensee, Tony Koslow, Lisa Levin, Francis Marsac, Helmut Maske, Baye C. Mbaye, Ivonne Montes, Wajih Naqvi, Jay Pearlman, Edwin Pinto, Grant Pitcher, Oscar Pizarro, Kenneth Rose, Damodar Shenoy, Anja Van der Plas, Melo R. Vito, and Kevin Weng. Multidisciplinary observing in the world ocean's oxygen minimum zone regions: From climate to fish — the VOICE Initiative. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Rindi:2019:CAC**

- [2186] Fabio Rindi, Juan C. Braga, Sophie Martin, Viviana Peña, Line Le Gall, Annalisa Caragnano, and Julio Aguirre. Coralline algae in a changing Mediterranean Sea: How can we predict their future, if we do not know their present? *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Zhai:2019:YPR**

- [2187] Lu Zhai and Daniel Pauly. Yield-per-recruit, utility-per-recruit, and relative biomass of 21 exploited fish species in China's coastal seas. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Dippner:2019:LRT**

- [2188] Joachim W. Dippner, Ines Bartl, Evridiki Chrysagi, Peter Holtermann, Anke Kremp, Franziska Thoms, and Maren Voss. Lagrangian residence time in the Bay of Gdańsk, Baltic Sea. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Sola:2019:GZS**

- [2189] Jordi Sola, Shannon G. Klein, Cecilia Martin, Susana Agustí, and Carlos M. Duarte. Gelatinous zooplankton in the surface layers of the coastal Central Red Sea. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Madin:2019:ETC**

- [2190] Elizabeth M. P. Madin, Emily S. Darling, and Marah J. Hardt. Emerging technologies and coral reef conservation: Opportunities, challenges, and moving forward. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.



**Vasconcelos-Filho:2019:POF**

- [2191] Jonas E. Vasconcelos-Filho, Felix S. L. Thomsen, Borko Stosic, Antonio C. D. Antonino, Daniel A. Duarte, Richard J. Heck, Rosangela P. T. Lessa, Francisco M. Santana, Beatrice P. Ferreira, and Paulo J. Duarte-Neto. Peeling the otolith of fish: Optimal parameterization for micro-CT scanning. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Kusch:2019:OSB**

- [2192] Stephanie Kusch, Julio Sepúlveda, and Stuart G. Wakeham. Origin of sedimentary BHPs along a Mississippi River–Gulf of Mexico export transect: Insights from spatial and density distributions. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Keen:2019:NDD**

- [2193] Eric M. Keen, Kylie L. Scales, Brenda K. Rone, Elliott L. Hazen, Erin A. Falcone, and Gregory S. Schorr. Night and day: Diel differences in ship strike risk for fin whales (*Balaenoptera physalus*) in the California Current System. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Pearson:2019:MLE**

- [2194] Becky Pearson, Tim Kearns, Tad Slawewski, Bryan Stubbs, Max Herzog, Kelli Paige, and David Fitch. Making Lake Erie smart by driving innovations in technology and networking. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Closek:2019:MVB**

- [2195] Collin J. Closek, Jarrod A. Santora, Hilary A. Starks, Isaac D. Schroeder, Elizabeth A. Andruszkiewicz, Keith M. Sakuma, Steven J. Bograd, Elliott L. Hazen, John C. Field, and Alexandria B. Boehm. Marine vertebrate biodiversity and distribution within the Central California Current using environmental DNA (eDNA) metabarcoding and ecosystem surveys. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Lindkvist:2020:NCA**

- [2196] Emilie Lindkvist, Nanda Wijermans, Tim M. Daw, Blanca Gonzalez-Mon, Alfredo Giron-Nava, Andrew F. Johnson, Ingrid van Putten, Xavier Basurto, and Maja Schlüter. Navigating complexities: Agent-based modeling to support research, governance, and management in small-scale fisheries. *Frontiers in Marine Science*, 6, January 2020. ISSN 2296-7745.

**Oliver:2019:PMH**

- [2197] Eric C. J. Oliver, Michael T. Burrows, Markus G. Donat, Alex Sen Gupta, Lisa V. Alexander, Sarah E. Perkins-Kirkpatrick, Jessica A. Benthuisen, Alistair J. Hobday, Neil J. Holbrook, Pippa J. Moore, Mads S. Thomsen, Thomas Wernberg, and Dan A. Smale. Projected marine heatwaves in the 21st Century and the potential for ecological impact. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Wang:2019:DPM**

- [2198] Xiaoxiao Wang, Xiaoshou Liu, and Jishang Xu. Distribution patterns of meiofauna assemblages and their relationship with environmental factors of deep sea adjacent to the Yap Trench, Western Pacific Ocean. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Schoening:2019:SSG**

- [2199] Timm Schoening. SHiPCC — a sea-going high-performance compute cluster for image analysis. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Schlegel:2019:DMH**

- [2200] Robert W. Schlegel, Eric C. J. Oliver, Alistair J. Hobday, and Albertus J. Smit. Detecting marine heatwaves with sub-optimal data. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Gregor:2019:PGP**

- [2201] Luke Gregor, Thomas J. Ryan-Keogh, Sarah-Anne Nicholson, Marcel du Plessis, Isabelle Giddy, and Sebastiaan Swart. **GliderTools**: a Python toolbox for processing underwater glider data. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Pajares:2019:PMI**

- [2202] Silvia Pajares and Ramiro Ramos. Processes and microorganisms involved in the marine nitrogen cycle: Knowledge and gaps. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Turan:2019:GSA**

- [2203] Cemal Turan, Petya Pavlova Ivanova, Violin Stoyanov Raykov, Mevlut Gurlek, Deniz Erguden, Deniz Yaglioglu, Serpil Karan, Servet Ahmet Dogdu, Ali Uyan, Bayram Ozturk, Venelin Nikolov, Ivan Dobrovolov, Antonina Khanaychenko, and Vitaly Giragosov. Genetics structure analysis of turbot (*Scophthalmus maximus*, Linnaeus, 1758) in the Black and Mediterranean Seas for application of innovative management strategies. *Frontiers in Marine Science*, 6, November 2019. ISSN 2296-7745.

**Kiko:2019:EZM**

- [2204] Rainer Kiko and Helena Hauss. On the estimation of zooplankton-mediated active fluxes in oxygen minimum zone regions. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Wangpraseurt:2019:EOE**

- [2205] Daniel Wangpraseurt, Anthony W. D. Larkum, Christine Ferrier-Pagès, Anya Salih, Mark E. Warner, Zvy Dubinsky, and Michael Kühl. Editorial: Optics and ecophysiology of coral reef organisms. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**McDonald:2019:RHB**

- [2206] Natasha McDonald, Eric P. Achterberg, Craig A. Carlson, Martha Gledhill, Shuting Liu, Julia R. Matheson-Barker, Norm B. Nelson, and Rachel J. Parsons. The role of heterotrophic bacteria and archaea in the transformation of lignin in the open ocean. *Frontiers in Marine Science*, 6, December 2019. ISSN 2296-7745.

**Muelbert:2020:CII**

- [2207] José H. Muelbert, Nicholas J. Nidzieko, Alicia T. R. Acosta, Stace E. Beaulieu, Angelo F. Bernardino, Elmira Boikova, Thomas G. Bornman, Bruno Cataletto, Klaas Deneudt, Erika Eliason, Alexandra Kraberg, Masahiro Nakaoka, Alessandra Pugnetti, Olivier Ragueneau, Mirco Scharfe, Thomas Soltwedel, Heidi M. Sosik, Angela Stanisci, Kremena Stefanova, Pierre Stéphan, Adrian Stier, Johan Wikner, and Adriana Zingone. Corrigendum: ILTER — the International Long-Term Ecological Research Network as a platform for global coastal and ocean observation. *Frontiers in Marine Science*, 6, January 2020. ISSN 2296-7745. See [1991].

**Kennedy:2020:CUU**

- [2208] Brian R. C. Kennedy, Kasey Cantwell, Mashkoor Malik, Christopher Kelley, Jeremy Potter, Kelley Elliott, Elizabeth Lobecker, Lindsay McKenna Gray, Derek Sowers, Michael P. White, Scott C. France, Steven Auscavitch, Christopher Mah, Virginia Moriwake, Sarah R. D. Bingo, Meagan Putts, and Randi D. Rotjan. Corrigendum: The unknown and the unexplored: Insights into the Pacific deep-sea following NOAA CAPSTONE Expeditions. *Frontiers in Marine Science*, 6, February 2020. ISSN 2296-7745. See [1944].

**Meesters:2020:CMR**

- [2209] Erik H. Meesters, Rolf P. M. Bak, and Fleur C. van Duyl. Commentary: Managing recovery resilience in coral reefs against climate-induced

bleaching and hurricanes: a 15 year case study from Bonaire, Dutch Caribbean. *Frontiers in Marine Science*, 7, June 2020. ISSN 2296-7745. See [1731].

**Sawakuchi:2020:CCD**

- [2210] Henrique O. Sawakuchi, Vania Neu, Nicholas D. Ward, Maria de Lourdes C. Barros, Aline M. Valerio, William Gagne-Maynard, Alan C. Cunha, Diani F. S. Less, Joel E. M. Diniz, Daimio C. Brito, Alex V. Krusche, and Jeffrey E. Richey. Corrigendum: Carbon dioxide emissions along the Lower Amazon River. *Frontiers in Marine Science*, 7, September 2020. ISSN 2296-7745. See [568].

**Langenkamper:2020:CPB**

- [2211] Daniel Langenkämper, Martin Zurowietz, Timm Schoening, and Tim W. Nattkemper. Corrigendum: BIIGLE 2.0 — browsing and annotating large marine image collections. *Frontiers in Marine Science*, 7, October 2020. ISSN 2296-7745. See [575].

**Hjerne:2020:CCD**

- [2212] Olle Hjerne, Susanna Hajdu, Ulf Larsson, Andrea S. Downing, and Monika Winder. Corrigendum: Climate driven changes in timing, composition and magnitude of the Baltic Sea phytoplankton spring bloom. *Frontiers in Marine Science*, 7, November 2020. ISSN 2296-7745. See [1946].

**MosqueraGimenez:2021:COC**

- [2213] Ángela Mosquera Giménez, Pedro Vélez-Belchí, Jesús Rivera, Safo Piñeiro, Noelia Fajar, Verónica Caínzos, Rosa Balbín, Juan Antonio Jiménez Aparicio, Carlos Dominguez-Carrió, Jordi Blasco-Ferre, Marina Carreiro-Silva, Telmo Morato, Patricia Puerta, and Covadonga Oregas. Corrigendum: Ocean circulation over North Atlantic underwater features in the path of the Mediterranean outflow water: The Ormonde and Formigas Seamounts, and the Gazul Mud Volcano. *Frontiers in Marine Science*, 8, February 2021. ISSN 2296-7745. See [2165].

**Shimabukuro:2021:CDD**

- [2214] Mauricio Shimabukuro, Orlemir Carrerette, Joan Manel Alfaro-Lucas, Alexandra Elaine Rizzo, Kenneth M. Halanych, and Paulo Yukio Gomes Sumida. Corrigendum: Diversity, distribution and phylogeny of *Hesionidae* (Annelida) colonizing whale falls: New species of *Sirsoe* and connections between ocean basins. *Frontiers in Marine Science*, 8, June 2021. ISSN 2296-7745. See [1942].

Testor:2021:COC
-----------------

- [2215] Pierre Testor, Brad de Young, Daniel L. Rudnick, Scott Glenn, Daniel Hayes, Craig M. Lee, Charitha Pattiaratchi, Katherine Hill, Emma Heslop, Victor Turpin, Pekka Alenius, Carlos Barrera, John A. Barth, Nicholas Beaird, Guislain Bécu, Anthony Bosse, François Bourrin, J. Alexander Brearley, Yi Chao, Sue Chen, Jacopo Chiggiato, Laurent Coppola, Richard Crout, James Cummings, Beth Curry, Ruth Curry, Richard Davis, Kruti Desai, Steve DiMarco, Catherine Edwards, Sophie Fielding, Ilker Fer, Eleanor Frajka-Williams, Hezi Gildor, Gustavo Goni, Dimitri Gutierrez, Peter Haugan, David Hebert, Joleen Heiderich, Stephanie Henson, Karen Heywood, Patrick Hogan, Loïc Houpert, Sik Huh, Mark E. Inall, Masso Ishii, Shin ichi Ito, Sachihiko Itoh, Sen Jan, Jan Kaiser, Johannes Karstensen, Barbara Kirkpatrick, Jody Klymak, Josh Kohut, Gerd Krahmman, Marjolaine Krug, Sam McClatchie, Frédéric Marin, Elena Mauri, Avichal Mehra, Michael P. Meredith, Thomas Meunier, Travis Miles, Julio M. Morell, Laurent Mortier, Sarah Nicholson, Joanne O'Callaghan, Diarmuid O'Conchubhair, Peter Oke, Enric Pallàs-Sanz, Matthew Palmer, JongJin Park, Leonidas Perivoliotis, Pierre-Marie Poulain, Ruth Perry, Bastien Queste, Luc Rainville, Eric Rehm, Moninya Roughan, Nicholas Rome, Tetjana Ross, Simon Ruiz, Grace Saba, Amandine Schaeffer, Martha Schönau, Katrin Schroeder, Yugo Shimizu, Bernadette M. Sloyan, David Smeed, Derrick Snowden, Yumi Song, Sebastian Swart, Miguel Tenreiro, Andrew Thompson, Joaquin Tintore, Robert E. Todd, Cesar Toro, Hugh VENABLES, Taku Wagawa, Stephanie Waterman, Roy A. Watlington, and Doug Wilson. Corrigendum: OceanGliders: a component of the integrated GOOS. *Frontiers in Marine Science*, 8, May 2021. ISSN 2296-7745. See [1887].