|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site | size µm | DddD  (%) | DddL  (%) | DddP  (%) | DmdA  (%) | Rhodopsin  (%) | *pufLM*  (%)a | RecA |
| Organic Lake 1.7 m (GS374) | 0.1  0.8  3.0 | 2 (9)  10 (36)  11 (50) | 4 (19)  10 (39)  5 (21) | 0  1 (2)  2 (7) | 0\* (2)  2 (7)  9 (43) | 1 (5)  5 (20)  12 (57) | 0\* (1)  4 (14)  13 (61) | 21  26  21 |
| Organic Lake 4.2 m (GS375) | 0.1  0.8  3.0 | 5 (34)  15 (54)  23 (75) | 5 (34)  9 (31)  2 (8) | 0  0  1 (2.5) | 1 (10)  2 (6)  20 (68) | 1 (10)  7 (23)  14 (45) | 2 (16)  3 (11)  16 (53) | 14  28  30 |
| Organic Lake 5.7 m (GS376) | 0.1  0.8  3.0 | 4 (43)  6 (20)  19 (68) | 1 (7)  9 (32)  3 (12) | 0  0  0 | 1 (14)  2 (7)  13 (47) | 2 (21)  6 (22)  6 (21) | 0\* (4)  3 (12)  11 (38) | 10  29  28 |
| Organic Lake 6.5 m (GS377) | 0.1  0.8  3.0 | 10 (51)  14 (38)  42 (106) | 0\* (2)  9 (23)  5 (13) | 0  1 (2)  0 | 3 (15)  7 (20)  20 (52) | 1 (7)  6 (16)  6 (16) | 4 (22)  7 (20)  22 (55) | 20  28  29 |
| Organic Lake 6.7 m (GS378) | 0.1  0.8  3.0 | 1 (7)  12 (26)  50 (174) | 0\* (4)  8 (17)  5 (17) | 0  0  4 (13) | 0  2 (5)  12 (43) | 1 (7)  8 (16)  12 (43) | 2 (13)  4 (9)  14 (48) | 13  47  29 |
| Ace Lake 5 m (GS232) | 0.1  0.8  3.0 | 0  2 (5)  0 | 0  2 (4)  0 | 0  0  0 | 12 (39)  2 (5)  0 | 19 (63)  15 (37)  9 (75) | 0\* (1)  5 (11)  0 | 30  42  12 |
| Ace Lake 11.5 m (GS231) | 0.1  0.8  3.0 | 1 (3)  1 (2)  0 | 0  0  0 | 1 (5)  0  1 (6) | 21 (76)  2 (3)  0 | 11 (42)  9 (18)  3 (25) | 0  1 (3)  0 | 27  48  11 |
| Ace Lake 12.7 m (GS230) | 0.1  0.8  3.0 | 0  0  0 | 0  0  0 | 0  0  0 | 0  0  0 | 0  0  0 | 0  0  0 | 63  48  43 |
| Ace Lake 14 m (GS229) | 0.1  0.8  3.0 | 0  0  0 | 0  0  0 | 0  1 (1)  0 | 0  1 (1)  0 | 0  0  2 (3) | 0  0  0 | 54  42  55 |
| Ace Lake 18 m (GS228) | 0.1  0.8  3.0 | 0  1 (2)  0 | 0  0  0 | 0  0  0 | 1 (4)  0  0 | 0  1 (2)  0 | 0  0  0 | 34  43  34 |
| Ace Lake 23 m (GS227) | 0.1  0.8  3.0 | 0  1 (2)  0 | 0  0  0 | 0  0\* (1)  0 | 0  0  0 | 2 (4)  1 (2)  0 | 0  0  0 | 48  48  43 |
| Newcomb Bay 1 (GS235) | 0.1  0.8  3.0 | 6 (14)  5 (12)  0 | 0  0  0 | 3  0  0 | 50 (111)  18 (41)  2 (17) | 89 (196)  55 (123)  4 (33) | 0  0  0 | 45  45  11 |
| Newcomb Bay 2 (GS236) | 0.1  0.8  3.0 | 0  9 (21)  10 (129) | 0  0  0 | 1 (1)  2 (5)  0 | 52 (88)  25 (59)  4 (57) | 72 (122)  49 (116)  11 (142) | 0  0  0 | 59  42  8 |
| Southern Ocean coastal SZ (GS349) | 0.1  0.8  3.0 | 3 (4)  2 (14)  0 | 0  0  0 | 0  0  0 | 62 (103)  13 (86)  0 | 98 (161)  15 (100)  0 | 0  0  0 | 61  15  0 |
| Southern Ocean coastal SZ (GS351) | 0.1  0.8  3.0 | 1 (1)  1 (1)  1 (17) | 0  0  0 | 4 (7)  5 (13)  0 | 91 (157)  49 (116)  2 (50) | 103 (178)  54 (129)  4 (83) | 0  0  0 | 58  42  4 |
| Southern Ocean coastal SZ (GS352) | 0.1  0.8  3.0 | 1 (2)  2 (5)  1 (14) | 0  0  0 | 3 (4)  1 (4)  0 | 77 (104)  29 (86)  1 (14) | 97 (132)  43 (127)  3 (71) | 0  0  0 | 73  34  4 |
| Southern Ocean coastal SZ (GS353) | 0.1  0.8  3.0 | 4 (6)  7 (14)  0 | 0  1 (2)  0 | 5 (7)  6 (12)  0 | 48 (66)  2 (4)  6 (56) | 77 (107)  34 (62)  6 (56) | 0  0  0 | 72  55  10 |
| Southern Ocean coastal SZ (GS360) | 0.1  0.8  3.0 | 1 (1)  3 (17)  3 (200) | 0  0  0 | 11 (13)  5 (28)  0 | 61 (77)  36 (178)  0 | 96 (122)  50 (250)  0 | 0  0  0 | 79  20  2 |
| Southern Ocean SZ (GS357) | 0.1  0.8  3.0 | 1 (2)  0  0 | 0  0  0 | 5 (6)  5 (12)  0 | 75 (96)  49 (126)  7 (167) | 112 (142)  49 (126)  4 (100) | 0  0  0 | 79  39  4 |
| Southern Ocean SZ (GS358) | 0.1  0.8  3.0 | 1 (1)  4 (7)  0 | 0  0  0 | 10 (13)  7 (12)  2 (33) | 95 (131)  34 (71)  11 (233) | 111 (154)  46 (83)  6 (133) | 0  0  0 | 72  55  5 |
| Southern Ocean SZ (GS359) | 0.1  0.8  3.0 | 4 (5)  5 (13)  1 (20) | 0  0  0 | 11 (17)  2 (5)  0 | 85 (131)  42 (115)  3 (80) | 99 (154)  53 (148)  5 (160) | 0  0  0 | 65  36  3 |
| Southern Ocean NZ (GS346) | 0.1  0.8  3.0 | 0  0  1 (9) | 0  0  0 | 4 (6)  14 (36)  1 (9) | 152 (229)  29 (75)  11 (91) | 151 (227)  39 (103)  10 (82) | 1 (2)  2 (5)  0 | 67  38  12 |
| Southern Ocean NZ  (GS363) | 0.1  0.8  3.0 | 0  2 (9)  1 (5) | 0  0  0 | 8 (14)  9 (41)  2 (10) | 104 (192)  32 (141)  7 (33) | 110 (202)  48 (214)  12 (57) | 0\* (1)  0  0 | 54  22  21 |
| Southern Ocean NZ (GS364) | 0.1  0.8  3.0 | 1 (2)  0  0 | 0  0  0 | 6 (8)  3 (15)  0 | 79 (107)  9 (54)  0 | 93 (126)  20 (115)  6 (100) | 0\* (0\*)  0  0 | 74  18  6 |
| Southern Ocean NZ (GS366) | 0.1  0.8  3.0 | 1 (1)  0  0 | 0  0  0 | 4 (5)  18 (40)  3 (15) | 123 (142)  61 (136)  10 (62) | 107 (124)  51 (112)  18 (107) | 1 (1)  8 (18)  1 (8) | 87  45  17 |
| Southern Ocean subtropical (GS367) | 0.1  0.8  3.0 | 0  1 (2)  0 | 0  0  0 | 5 (5)  5 (13)  0 | 164 (169)  25 (64)  7 (53) | 117 (120)  27 (70)  12 (95) | 2 (2)  3 (7)  1 (5) | 97  39  13 |
| Southern Ocean subtropical (GS368) | 0.1  0.8  3.0 | 0  0  0 |  |  | 130 (169)  16 (60)  4 (300) | 111(144)  27 (100)  6 (400) | 1 (3)  3 (10)  1 (50) | 77  27  1 |
| Gulf of Maine | 0.1 | 0 | 0 | 2 (4) | 27 (49) | 85 (155) | 4 (6) | 55 |
| Brown’s Bank, Gulf of Maine | 0.1 | 0 | 0 | 8 (12) | 45 (68) | 59 (88) | 9 (13) | 67 |
| Outside Halifax, Nova Scotia | 0.1 | 0 | 0 | 2 (3) | 48 (70) | 83 (120) | 0 | 69 |
| Bedford Basin Nova Scotia | 0.1 | 4 (8) | 0 | 6 (12) | 28 (54) | 58 (112) | 3 (6) | 52 |
| Bay of Fundy, Nova Scotia | 0.1 | 0 | 0 | 6 (5) | 67 (57) | 94 (79) | 0 | 118 |
| Northern Gulf of Maine | 0.1 | 5 (5) | 0 | 2 (3) | 14 (16) | 91 (103) | 1 (1) | 88 |
| Newport Harbor, RI | 0.1 | 0 | 0 | 9 (13) | 8 (10) | 68 (90) | 8 (10) | 75 |
| Block Island NY | 0.1 | 0 | 0 | 3 (4) | 44 (60) | 61 (82) | 4 (5) | 75 |
| Cape May, NJ | 0.1 | 0 | 0 | 0 | 37 (42) | 73 (82) | 2 (2) | 89 |
| Delaware Bay, NJ | 0.1 | 0 | 0 | 0 | 14 (18) | 55 (72) | 5 (5) | 76 |
| Chesapeake Bay, MD | 0.1 | 0 | 0 | 0 | 25 (38) | 52 (81) | 1 (1) | 65 |
| Off Nags Head, NC | 0.1 | 0 | 0 | 2 (3) | 22 (35) | 47 (74) | 4 (7) | 63 |
| South of Charleston, SC | 0.1 | 0 | 0 | 3 (3) | 47 (49) | 92 (94) | 3 (3) | 97 |
| Off Key West, FL | 0.1 | 0 | 0 | 11 (13) | 44 (53) | 77 (93) | 4 (5) | 83 |
| Gulf of Mexico | 0.1 | 0 | 0 | 1 (1) | 50 (66) | 77 (101) | 1 (1) | 76 |
| Yucatan Channel | 0.1 | 0 | 0 | 7 (8) | 42 (49) | 68 (79) | 4 (5) | 86 |
| Rosario Bank | 0.1 | 0 | 0 | 10 (9) | 50 (43) | 61 (54) | 3 (2) | 113 |
| Northeast of Colón | 0.1 | 0 | 0 | 5 (5) | 50 (43) | 72 (63) | 4 (4) | 114 |
| Lake Gatun | 0.1 | 0 | 0 | 0 | 4 (4) | 48 (53) | 2 (3) | 90 |
| Gulf of Panama | 0.1 | 0 | 0 | 10 (12) | 39 (46) | 72 (86) | 5 (5) | 84 |
| 250 miles from Panama City | 0.1 | 0 | 0 | 8 (10) | 33 (41) | 64 (80) | 5 (6) | 81 |
| 30 miles from Cocos Island | 0.1 | 0 | 0 | 5 (6) | 40 (51) | 67 (84) | 2 (2) | 80 |
| Dirty Rock, Cocos Island | 0.8 | 0 | 0 | 0 | 0 | 7 (39) | 0 | 18 |
| 134 miles NE of Galápagos | 0.1 | 0 | 0 | 6 (6) | 57 (56) | 56 (55) | 7 (7) | 101 |
| Devil’s Crown, Floreana Island | 0.1 | 0 | 0 | 8 (8) | 53 (55) | 84 (87) | 8 (9) | 96 |
| Coastal Floreana | 0.1 | 0 | 0 | 6 (6) | 61 (59) | 88 (84) | 5 (4) | 104 |
| North James Bay, Santigo | 0.1 | 0 | 0 | 7 (7) | 69 (68) | 88 (86) | 9 (9) | 102 |
| Warm seep, Roca Redonda | 0.1 | 0 | 0 | 7 (6) | 75 (63) | 83 (69) | 6 (5) | 120 |
| Upwelling, Fernandina | 0.1 | 0 | 0 | 4 (4) | 81 (77) | 81 (76) | 4 (4) | 106 |
| Mangrove, Isabella | 0.1 | 0 | 0 | 2 (3) | 24 (34) | 25 (36) | 1 (1) | 71 |
| Punta Cormorant Lagoon, Floreana | 0.1 | 0 | 11 (15) | 14 (21) | 4 (6) | 31 (43) | 15 (21) | 72 |
| North Seamore | 0.1 | 0 | 0 | 5 (6) | 61 (80) | 61 (79) | 8 (11) | 77 |
| Wolf Island | 0.1 | 0 | 0 | 11 (12) | 51 (53) | 85 (88) | 7 (8) | 96 |
| Cabo Marshall, Isabella | 0.1 | 0 | 0 | 3 (4) | 60 (75) | 52 (65) | 9 (12) | 80 |
| Equatorial Pacific TAO Buoy | 0.1 | 0 | 0 | 9 (12) | 60 (78) | 76 (100) | 6 (9) | 76 |
| 201 miles from French Polynesia | 0.1 | 0 | 0 | 6 (7) | 50 (57) | 81 (94) | 7 (9) | 87 |
| Rangirora Atoll | 0.1 | 0 | 0 | 11 (15) | 38 (49) | 73 (94) | 3 (4) | 77 |