|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 mixolimnion | 0.1  0.8  3.0 | 0\* (2)  2 (3)  0 | 0  1 (2)  0 | 1 (2)  0  0\* (4) | 15 (56)  2 (4)  0 | 15 (53)  12 (27)  5 (42) | 0\* (1)  3 (12)  0 | 28  45  11 |
| Newcomb Bay (GS235) | 0.1  0.8  3.0 | 6 (14)  5 (12)  0 | 0  0  0 | 3 (7)  0  0 | 50 (111)  18 (41)  2 (17) | 89 (**196**)  55 (123)  4 (33) | 0  0  0 | 45  45  11 |
| Southern Ocean SZ | 0.1  0.8  3.0 | 2 (3)  3 (6)  0\* (7) | 0  0\* (0\*)  0 | 6 (9)  5 (12)  0\* (4) | 71 (101)  32 (81)  4 (66) | 98 (139)  43 (108)  5 (84) | 0  0  0 | 70  39  6 |
| Southern Ocean NZ | 0.1  0.8  3.0 | 0\* (1)  0\* (2)  0 \*(3) | 0  0  0 | 5 (7)  9 (**30**)  1 (9) | **124** (**159**)  28 (84)  7 (54) | **111** (142)  35 (107)  11 (89) | 1 (1)  2 (7)  0 (4) | 78  33  12 |
| GOS coastal | 0.1 | 0\* (0\*) | 0 | 5 (6) | 44 (52) | 74 (87) | 5 (6) | 85 |
| GOS open ocean | 0.1 | 0 | 0 | 7 (8) | 45 (50) | 66 (74) | 5 (5) | 90 |
| GOS estuary | 0.1 | 0 | 0 | 1 (1) | 29 (36) | 61 (77) | 2 (3) | 80 |
| GOS embayment (GS005) | 0.1 | 4 (8) | 0 | 6 (12) | 28 (54) | 58 (112) | 3 (6) | 52 |
| GOS Lake Gatun (GS020) | 0.1 | 0 | 0 | 0 | 4 (4) | 48 (53) | 2 (2) | 90 |
| GOS fringing reef (GS025) | 0.8 | 0 | 0 | 0 | 0 | 7 (39) | 0 | 18 |
| GOS warm seep (GS030) | 0.1 | 0 | 0 | 7 (6) | 75 (63) | 83 (69) | 6 (5) | 120 |
| GOS Upwelling, Fernandina (GS031) | 0.1 | 0 | 0 | 4 (4) | 81 (77) | 81 (76) | 4 (4) | 106 |
| GOS mangrove (GS032) | 0.1 | 0 | 0 | 2 (3) | 24 (34) | 25 (36) | 1 (1) | 71 |
| GOS Punta Cormorant Lagoon (GS033) | 0.1 | 0 | **11** (15) | **14** (21) | 4 (6) | 31 (43) | 15 (21) | 72 |
| GOS Rangirora Atoll (GS051) | 0.1 | 0 | 0 | 11 (15) | 38 (49) | 73 (94) | 3 (4) | 77 |