**Table 1**: Quantification (cell L-1) and identification of phytoplankton communities based on microscopic morphology.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |  |   |   |   |   | **Stations** |   |   |   |   |   |
| Species | BOB-1 | BOB-2 | BOB-3 | BOB-4 | BOB-5 | BOB-6 | BOB-7 | BOB-8 | BOB-9 | BOB-10 | BOB-11 | BOB-12 |
| **Bacillariophyta**  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Asterolampra marylandica* Ehrenberg | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Chaetoceros coarctatus* | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 20 | 0 | 0 |
| *Chaetoceros decipiens f.decipiens* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 |
| *Chaetoceros curvisetus* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 |
| *Coscinodiscus granii* Grough | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| *Coscinodiscus radiatus* Ehrenberg | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| *Coscinodiscus subtilis* | 12 | 28 | 10 | 0 | 2 | 8 | 8 | 4 | 6 | 0 | 6 | 28 |
| *Coscinodiscus centralis* | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Eunotogramma debile* | 4 | 2 | 0 | 0 | 2 | 196 | 0 | 4 | 20 | 0 | 0 | 0 |
| *Fragilariopsis doliolus Medlin* P.A.Sims | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Hemidiscus cuneiformis* Wallich | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| *Hemiaulus sinensis* Greville | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 10 | 0 |
| *Navicula spp.* | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| *Odontella sinensis* | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Planktoniella foromsa* | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| *Pleurosigma pelagicum* | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Rhizosolenia robusta* | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 42 | 66 | 0 |
| *Rhizosolenia bergonii* Perty | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 12 | 0 |
| *Synedra spp.* | 0 | 0 | 2 | 4 | 12 | 0 | 4 | 2 | 0 | 12 | 2 | 0 |
| *Thalassiothrix longissima* Cleve et Grunow | 0 | 12 | 0 | 2 | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| *Thalassionema frauenfeldii (Grunow)* Hallegraeff | 0 | 0 | 4 | 0 | 0 | 0 | 70 | 0 | 0 | 134 | 366 | 0 |
| Thalassiosira nordenskioldii | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| Bacillariophyta cells L-1 | 1.8×104 | 4.8×104 | 3.8×104 | 3×104 | 6×104 | 2.06×105 | 1.08×105 | 1.4×104 | 2.6×104 | 2.34×105 | 4.84×105 | 2.8×104 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Dinoflagellates** |  |  |   |   |   |   |   |   |   |   |   |   |
| *Amphisolenia bidentata* | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| *Ceratium breve* var.parallelum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 |
| *Ceratium breve* var.breve | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| *Ceratium tripos* var.pulcbellum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| *Ceratium bumile* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *Ceratium tripos var.atlanticum* | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 16 |
| *Ceratium borridum var.denticulatum* | 0 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| *Ceratium contrarium* | 0 | 0 | 0 | 2 | 0 | 4 | 8 | 6 | 6 | 12 | 6 | 6 |
| *Ceratium candelabrum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| *Ceratium deflexum* | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 2 |
| *Ceratium digitatum* var.angusticornum | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Ceratium tripos* var.indicum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 |
| *Ceratium azoricum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| *Ceratium furca* | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 12 | 4 | 4 | 54 |
| *Ceratium candelabrum* var.candelabrum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| *Ceratium fusus var.seta* | 0 | 0 | 2 | 2 | 2 | 4 | 6 | 0 | 10 | 4 | 4 | 4 |
| *Ceratium macroceros* var.macroceros | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 |
| *Ceratium massiliense* var.massiliense | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Ceratium massiliense* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| *Ceratium tricboceros* | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Ceratocorys horrida* Stein 1 | 0 | 4 | 4 | 8 | 2 | 4 | 8 | 0 | 10 | 4 | 0 | 6 |
| *Dinophysis lativelata* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| *Dinophysis apicata* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| *Dinophysis laevis* | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Dinophysis caudata* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| *Dinophysis doryphorum* | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Dinophysis tailisuni* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| *Dinophysis acutoides* | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Dissodinium elegans* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 |
| *Gonyaulax polyedra* | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| *Gonyaulax minuta* | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Gonyaulax polygramma* | 0 | 2 | 2 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 |
| *Gymnodinium splendens* | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Gymnodinium vestifici* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| *Gymnodinium viridescens* | 0 | 6 | 10 | 0 | 0 | 2 | 6 | 4 | 2 | 14 | 0 | 2 |
| *Histioneis cymbalaria* | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| *Histioneis elongata* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| *Ornithocercus skogsbergii* | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Ornithocercus magnificus* Stein | 0 | 0 | 0 | 2 | 0 | 0 | 8 | 0 | 4 | 0 | 0 | 4 |
| *Ornithocercus thumii* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| *Ornithocercus steinii* | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Oxytoxum scolopax* | 0 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Oxytoxum globosum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| *Oxytoxum reticulatum* | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Pyropbacus borologium* | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| *Podolampas bipes* var.bipes | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 6 | 0 | 0 | 0 |
| *Prorocentrum compressum* | 4 | 22 | 4 | 10 | 16 | 26 | 12 | 4 | 24 | 0 | 0 | 12 |
| *Prorocentrum dentatum* Stein | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Prorocentrum gracile* | 0 | 0 | 2 | 6 | 0 | 16 | 0 | 0 | 0 | 2 | 0 | 2 |
| *Prorocentrum leniculatum* | 0 | 0 | 2 | 4 | 6 | 2 | 6 | 0 | 0 | 0 | 0 | 0 |
| *Prorocentrum micans* Ehrenberg | 0 | 4 | 0 | 10 | 2 | 20 | 4 | 0 | 0 | 0 | 0 | 16 |
| *Protoperidinium biconicum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| *Protoperidinium latissimum* | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Protoperidinium curtipes* | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Protoperidinium grande* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| *Protoperidinium inclinatum* | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Heteraulacus polyedricus* | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| *Protoperidinium tubum* | 0 | 0 | 0 | 6 | 0 | 0 | 8 | 0 | 0 | 2 | 0 | 0 |
| *Protoperidinium acbromaticum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *Protoperidinium longicollum* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| *Protoperidinium subinerme* | 2 | 2 | 0 | 4 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 |
| *Protoperidinium biconicum* | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Protoperidinium subpyriforme* | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| *Protoperidinium sourniai* | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Pyrocystis fusiformis* | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Pyrocystis robusta* | 0 | 0 | 2 | 12 | 8 | 0 | 2 | 0 | 2 | 0 | 0 | 0 |
| *Pyrocystis noctiluca* | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Dissodinium gerbaultii* | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Pyropbacus vancampoae* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| *Scrippsiella trochoidea* (Stein) Loeblich | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| *Heteraulacus polyedricus* |  |  |  |  |  |  | 4 |  |  |  |  |  |
| Dinoflagellates cells L-1 | 1.8×104 | 5.8×104 | 3.8×104 | 8.8×104 | 5.8×104 | 8.8×104 | 9.4×104 | 3.2×104 | 1.1×105 | 5.8×104 | 4.4×104 | 1.42×105 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Chrysophyta** |   |   |   |   |   |   |   |   |   |   |   |   |
| *Dictyocha fibula* | 0 | 0 | 0 | 16 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 8 |
| Chrysophyta cells L-1 | 0 | 0 | 0 | 1.6×104 | 0 | 0 | 8×103 | 8×103 | 0 | 0 | 0 | 8×103 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cyanophyta** |   |   |   |   |   |   |   |   |   |   |   |   |
| *Trichodesmium thiebaultii* Gomont | 0 | 0 | 0 | 0 | 140 | 0 | 0 | 0 | 5060 | 0 | 2000 | 0 |
| *Richelia intracellularis* | 0 | 0 | 120 | 0 | 40 | 96 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cyanobacteria cells L-1 | 0 | 0 | 1.2×105 | 0 | 1.8×105 | 9.6×104 | 0 | 0 | 5.6×106 | 0 | 2×106 | 0 |



**Figure 1.** Rarefaction curves comparing the number of reads to the number of phylotypes (OTUs) found in the BOB samples