

Supplementary materials 1. Table of species present during both cruises. A cross indicates that this species was detected during the fieldwork.

| Group | Species | July | March | Group | Species | July | March | Group | Species | July | March |
|---------------|-------------------------------|------|-------|-------------------|------------------------------------|------|-------|-------------|--------------------------|------|-------|
| Chlorophyceae | Eudoria sp. | x | | Bacillariophyceae | Gyrosigma strigile | | x | Dinophyceae | Ceratium breve | | x |
| Chlorophyceae | Pediastrum duplex v. duplex | x | | Bacillariophyceae | Hyalodiscus stelliger | | x | Dinophyceae | Ceratium candelabrum | | x |
| Chlorophyceae | Pediastrum simplex | x | | Bacillariophyceae | Lauderia borealis | | x | Dinophyceae | Ceratium deflexum | | x |
| Chlorophyceae | Pediastrum sp. | x | | Bacillariophyceae | Leptocylindrus danicus | x | x | Dinophyceae | Ceratium fusus | | x |
| Chlorophyceae | Pediastrum simplex v. simplex | x | | Bacillariophyceae | Melosira sp. | | x | Dinophyceae | Ceratium horridum | | x |
| Chlorophyceae | Scenedesmus quadricauda | x | | Bacillariophyceae | Melosira varians | x | | Dinophyceae | Ceratium massiliense | | x |
| Chlorophyceae | Scenedesmus acuminatus | x | | Bacillariophyceae | Melosira granulata | x | x | Dinophyceae | Ceratium pulchellum | | x |
| Chlorophyceae | Scenedesmus acutus | x | | Bacillariophyceae | Melosira granulata v. angustissima | x | | Dinophyceae | Ceratium tripos | | x |
| Chlorophyceae | Staurastrum sp. | x | | Bacillariophyceae | Navicula palpebralis | | x | Dinophyceae | Dinophysis caudata | x | x |
| Cyanobacteria | Anabaena sp.(filaments) | x | | Bacillariophyceae | Navicula membranacea | | x | Dinophyceae | Dinophysis cf. rotundata | | x |
| Cyanobacteria | Anabaena sp. | x | | Bacillariophyceae | Navicula sp. | x | x | Dinophyceae | Dinophysis rudgei | | x |
| Cyanobacteria | Anabaenopsis sp. | x | | Bacillariophyceae | Nitzschia longissima | x | x | Dinophyceae | Diplopsalis sp. | x | |
| Cyanobacteria | Arthrospira platensis | x | | Bacillariophyceae | Nitzschia longissima v. reversa | | x | Dinophyceae | Gyrodinium spirale | x | |

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|-------------------|--|---|---|-------------------|--|---|---|-------------|-----------------------------|---|---|
| | Unidentified Cyanobacteria (thin filament) | x | | Bacillariophyceae | Nitzschia sigma | x | | Dinophyceae | Goniodoma polyedra | x | |
| Cyanobacteria | Microcystis sp. | x | | Bacillariophyceae | Nitzschia sp. | x | x | Dinophyceae | Gonyaulax sp. | x | |
| Cyanobacteria | Oscillatoria sp.1 | x | x | Bacillariophyceae | Odontella mobiliensis | x | | Dinophyceae | Gonyaulax polygramma | x | |
| Bacillariophyceae | Amphiprora alata | x | | Bacillariophyceae | Paralia sulcata | x | x | Dinophyceae | Gonyaulax rotundata | x | |
| Bacillariophyceae | Amphora quadrata | x | | Bacillariophyceae | Pleurosigma sp.1 | x | x | Dinophyceae | Gonyaulax spinifera | x | |
| Bacillariophyceae | Actinoptychus sp. | x | | Bacillariophyceae | Pleurosigma sp.2 | x | | Dinophyceae | Oblea sp. | x | |
| Bacillariophyceae | Bacillaria paxillifera | x | | Bacillariophyceae | Pleurosigma naviculaceum | x | x | Dinophyceae | Peridinium quinquecorne | x | |
| Bacillariophyceae | Bacteriastrum varians | x | | Bacillariophyceae | Pleurosigma affine | x | | Dinophyceae | Peridinium sp. | x | |
| Bacillariophyceae | Biddulphia heteroceros | x | | Bacillariophyceae | Pleurosigma angulatum | x | | Dinophyceae | Prorocentrum rhathymum | x | |
| Bacillariophyceae | Biddulphia reticulum | x | | Bacillariophyceae | Pleurosigma pelagicum | x | | Dinophyceae | Prorocentrum micans | x | x |
| Bacillariophyceae | Biddulphia regia | x | x | Bacillariophyceae | Pseudo-nitzschia sp.1 (cf. pungens) | x | | Dinophyceae | Proto-peridinium conicum | x | |
| Bacillariophyceae | Cerataulina bergonii | x | | Bacillariophyceae | Pseudo-nitzschia sp.2 | x | | Dinophyceae | Proto-peridinium crassipes | x | |
| | Climacodium biconcavum | x | | Bacillariophyceae | Pseudo-nitzschia spp. | x | | Dinophyceae | Proto-peridinium subinermis | x | |
| Bacillariophyceae | Chaetoceros curvisetus | x | | Bacillariophyceae | Skeletonema costatum | x | | Dinophyceae | Proto-peridinium oceanicum | x | x |
| Bacillariophyceae | Chaetoceros spp. | x | | Bacillariophyceae | Surirella ovalis | x | | Dinophyceae | Proto-peridinium sp.1 | x | |
| Bacillariophyceae | Chaetoceros subtilis | x | | Bacillariophyceae | Surirella tenera | x | | Dinophyceae | Proto-peridinium sp.2 | x | |
| Bacillariophyceae | Chaetoceros affinis | x | | Bacillariophyceae | Thalassionema frauenfeldii | x | x | Dinophyceae | Proto-peridinium spp. | x | x |
| Bacillariophyceae | Coscinodiscus | x | | Bacillariophyceae | Thalassionema nitzschioides | x | x | Dinophyceae | Proto-peridinium depressum | x | |

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|-------------------|--------------------------------------|---|---|-------------------|-----------------------------|---|---|------------------|------------------------------------|--|---|
| | curvatulus | | | | | | | | | | |
| Bacillariophyceae | Coscinodiscus oculus-iridis | | x | Bacillariophyceae | Thalassiosira rotula | | x | Dinophyceae | Protoperidinium divergens | | x |
| Bacillariophyceae | Coscinodiscus radiatus | x | | Bacillariophyceae | Thalassiosira sp. | | x | Dinophyceae | Protoperidinium pellucidum | | x |
| Bacillariophyceae | Coscinodiscus jonesianus | | x | Bacillariophyceae | Thalassiosira spp. | | x | Dinophyceae | Protoperidinium pentagonum | | x |
| Bacillariophyceae | Coscinodiscus jonesianus v.commutata | x | x | Bacillariophyceae | Thalassiosira eccentrica | | x | Dinophyceae | Protoperidinium cf. thorianum | | x |
| Bacillariophyceae | Coscinodiscus sp. | x | x | Bacillariophyceae | Thalassiosira lineata | | x | Dinophyceae | Pyrophacus horologicum | | x |
| Bacillariophyceae | Coscinodiscus asteromphalus | x | x | Bacillariophyceae | Thalassiothrix longissima | | x | Dinophyceae | Small unidentified dinoflagellates | | |
| Bacillariophyceae | Coscinodiscus cf.subtilis | x | x | Bacillariophyceae | Trachyneis aspera | | x | Euglenophyceae | Euglena sp.1 | | x |
| Bacillariophyceae | Cyclotella comta | x | | Dinophyceae | Alexandrium pseudogonyaulax | x | | Euglenophyceae | Phacus cf. longicauda | | x |
| Bacillariophyceae | Cyclotella sp. | x | | Dinophyceae | Alexandrium sp. | x | x | Euglenophyceae | Phacus sp.1 | | x |
| Bacillariophyceae | Dactyliosolen sp. | x | | Dinophyceae | Ceratium trichoceros | | x | Euglenophyceae | Phacus tortus | | x |
| Bacillariophyceae | Ditylum brightwellii | | x | Dinophyceae | Ceratium furca | x | x | Dictyochophyceae | Dictyocha fibula | | x |
| Bacillariophyceae | Ditylum sol | | x | Dinophyceae | Ceratium fusus | | x | | | | |
| Bacillariophyceae | Guinardia flaccida | x | | Dinophyceae | Ceratium cf. hircus | | x | | | | |
| Bacillariophyceae | Guinardia striata | x | | Dinophyceae | Ceratium biceps | | x | | | | |