

surface waters of the ocean. Farther north again the pelagic Foraminifera predominate in the deposit, except at the depth of 2600 fathoms, where the greater part of them has been removed by the solvent powers of the sea water, as is usual at the great depths in the ocean.

*Surface Organisms.*—South of lat. 50° S. Diatoms were occasionally met with in the surface nets in enormous abundance. The most abundant were various species of *Chaetoceras*, but there were also many other genera. The tow-nets were on some occasions so filled with these that large quantities could be dried by heating over a stove when a whitish felt-like mass was obtained. Associated with the Diatoms were many species of Radiolarians.

At other times, when the sea was of a pale greenish colour, the water was filled with little spherical jelly-like bodies, about 0.1 mm. in diameter, which usually contained four greenish or yellowish spots. When held in a certain light in a glass jar, these little spheres could be seen by the naked eye filling the water. Similar minute Algæ have been found in the Arctic regions. Whenever the ship passed out of the greenish bands of water these minute spheres could not be observed. Coccospheres and Rhabdospheres, which were found so abundantly in the surface water of the warmer parts of the Atlantic and Southern Oceans, were not met with south of lat. 50° S., either on the surface or in the deposits at the bottom. The same remark applies to *Orbulina universa*, *Pulvinulina*, and several species of *Globigerina*. South of lat. 50° S. the only pelagic Foraminifera found on the surface were *Globigerina bulloides*, *Globigerina dutertrei*, and *Globigerina inflata*, and these were the only pelagic species found in the deposit at the bottom. Copepods, Ostracodes, Hyperids, *Euphausia*, *Alciopæ*, *Tomopteris*, *Sagitta*, Pteropods, *Salpa*, and *Appendicularia* were also met with in considerable abundance in the surface nets south of lat. 50° S.

The following birds were noticed while the Challenger was amongst the Antarctic ice:—

- Oceanites oceanicus*, Kuhl.
- Thalassæca glacialis*, Smith.
- Thalassæca* (*Acipetes*) *antarctica*, Gm.
- Ossifraga gigantea*, Gm.
- Pagodroma nivea*, Gm.
- Daption capensis*, Linn.
- Prion desolatus*, Gm.
- Diomedea* (*Phæbetria*) *fuliginosa*, Gm.
- Stercorarius antarcticus*, Less.

Penguins were very often seen in the water, and on one occasion sitting on the ice, but it was impossible to make out the species. Off the pack ice, and especially near the Antarctic Circle, whales (apparently all of one species, a "Finner," probably *Physalus*