

Oceanic species include a large part of Diatoms or silica-secreting microscopic plants. They live near the surface, requiring light like other plants, and are forced to keep near the surface by the bubble of oxygen they give out in assimilation. They abound especially in the southern Atlantic, and great areas over the bottom are covered with a Diatom ooze or soft mud.

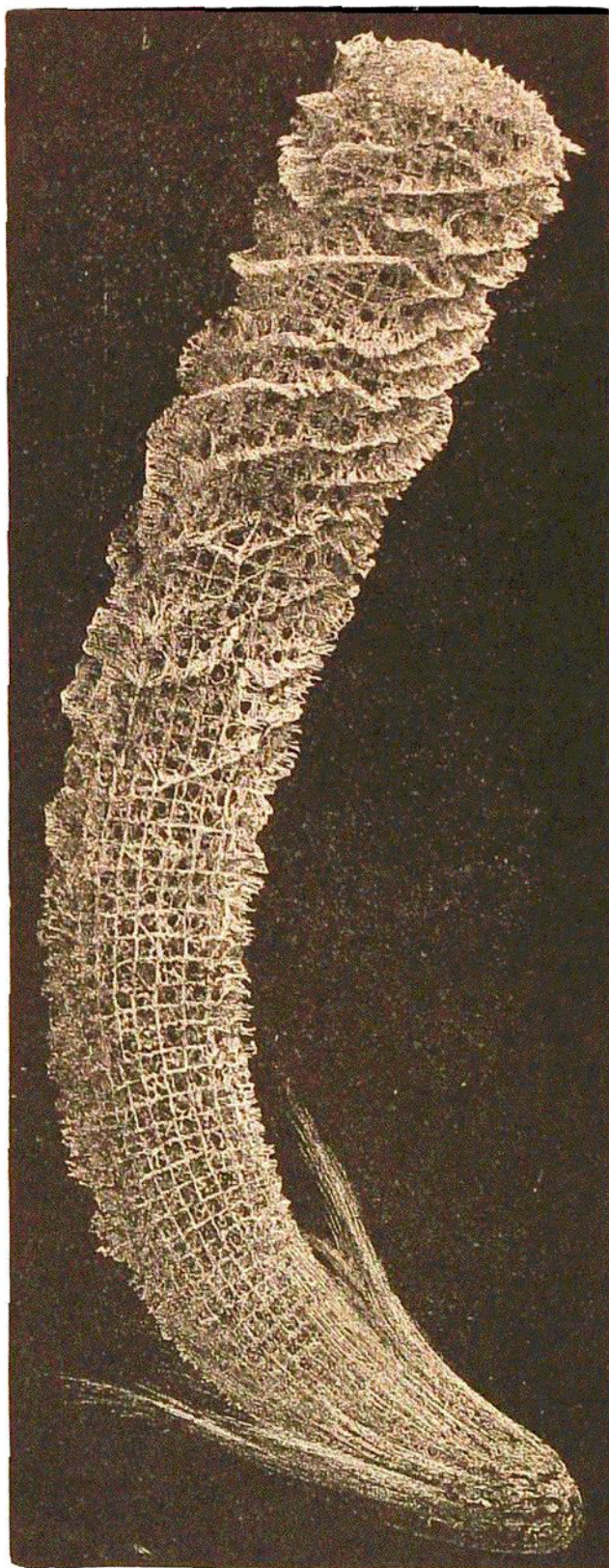
The Foraminifers, or calcareous Rhizopods, are solely salt-water species. They in part live near the surface, if not altogether. These abound in many seas, excepting the more frigid, and make by their accumulation at the bottom the Globigerina ooze, even to depths of 174,000 feet. Maury, alluding to the dropping to the ocean's bottom of the Foraminifers, says: "The sea, like the snow-cloud with its flakes, in a calm is always letting fall on its bed, showers of microscopic shells, and all pelagic life adds to the showers."

Radiolarians, or siliceous Rhizopods, occur only in salt water. They are abundant in some localities in the central Pacific, at a depth of 15,000 feet and less. They make a Radiolarian ooze. A Radiolarian deposit on the Barbadoes is supposed to indicate an elevation of the sea-bottom of 1000 to 2000 feet.

Siliceous Sponges occur in the ocean at various depths to 15,000 feet, and from warmer temperatures to 40° F. The Hexactinellids are most abundant at depths of 80 to 100 fathoms, at which depth the Euplectella (Fig. 29) was obtained near the Philippines, in waters at a temperature of 59° F., and near Cebu, of 69° F. For figures of a number of Sponge Spicules see page 432. The Choristid Sponges occur down to 16,200 feet, and the Lithistids to 900 feet. The Sponges with calcareous spicules or skeleton are also widely distributed. Both the calcareous and siliceous also occur in shallow waters, fresh and salt.

The ordinary or the Actinozoan Corals are all marine. *Solitary* kinds extend to great depths, and one species, *Bathyactis symmetrica*, has a vertical range from 180 to 17,400 feet (Moseley). They are, therefore, species of all temperatures and

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*Euplectella speciosa*, or Glass Sponge.