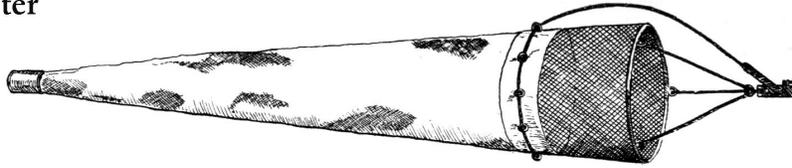


# Collecting Plankton



Plankton is caught with a plankton net. The net is made from a very fine mesh nylon or silk cloth. The end of the net is a bottle to trap the plankton inside. Plankton nets can be set out in an area with a strong current, or the net can be pulled behind a boat. Plankton samples can be preserved in 3-5% formalin solution.

## Plankton Vocabulary

**cil-i-um** (sīl<sup>1</sup>ê-em) *noun* plural **cil ia** (sīl<sup>1</sup>-e)

A microscopic hairlike projection. Capable of rhythmical motion, it acts in unison with other such structures to bring about movement.

**di-a-tom** (dī<sup>1</sup>e-tòm<sup>1</sup>) *noun*

A single-celled, microscopic plant that secretes and is enclosed by a silica shell. They are the principal component of plankton.

**di-no-flag-el-late** (dī<sup>1</sup>no-flāj<sup>1</sup>e-līt, -lāt<sup>1</sup>, -fle-jèl<sup>1</sup>īt) *noun*

Any of numerous minute, chiefly marine protozoans characteristically having two flagella and a cellulose covering and forming one of the chief constituents of plankton. They include bioluminescent forms and forms that produce red tide.

**fla-gel-lum** (fle-jèl<sup>1</sup>em) *noun* plural **fla gel la** (fle-jèl<sup>1</sup>e)

*Biology.* A long, whiplike extension of certain cells or unicellular organisms that functions as an organ of locomotion.

**hol-o-plank-ton** (hāl<sup>1</sup>o-plàngk<sup>1</sup>ten) *noun*

Zooplankton that spend their entire lives in a floating state.

**mer-o-plank-ton** (mer<sup>1</sup>o-plàngk<sup>1</sup>ten) *noun*

Zooplankton that spend part of their life as plankton then change into free swimmers or bottom dwellers

**nan-o-plank-ton** (nàn<sup>1</sup>e-plàngk<sup>1</sup>ten) *noun*

Aquatic organisms constituting very small or the smallest forms of plankton.

**phy-to-plank-ton** (fi<sup>1</sup>to-plàngk<sup>1</sup>ten) *noun*

Minute, free-floating aquatic plants.

**plank-ton** (plàngk<sup>1</sup>ten) *noun*

Aquatic organisms that float at the mercy of the currents or have limited swimming abilities.

**zo-o-plank-ton** (zo<sup>1</sup>e-plàngk<sup>1</sup>ten) *noun*

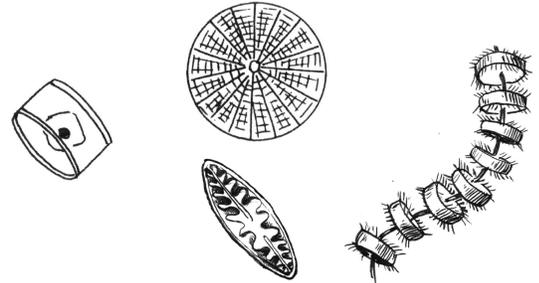
Plankton that consists of animals, including the corals, rotifers, sea anemones, and jellyfish.

# Phytoplankton

Phytoplankton is made up of very small, usually unicellular, plants. Phytoplankton are very important producers and form the base of the oceanic food chain. Phytoplankton produces 75-85% of the organic matter and over 80% of the oxygen on the planet. Diatoms and dinoflagellates are the major forms of phytoplankton.

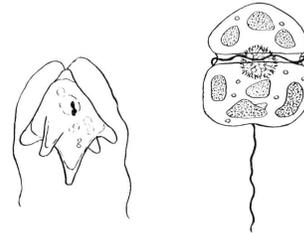
## Diatoms

Diatoms rarely exceed 1/50 inch in size. They are single-celled algae that cannot swim. Diatoms have two-part shells made of silica, a glass-like substance. The shell fits together like a box and lid. This shell helps the diatom float. Diatoms are the best producers in the ocean. They are eaten by zooplankton and larger filter feeders.



## Dinoflagellates

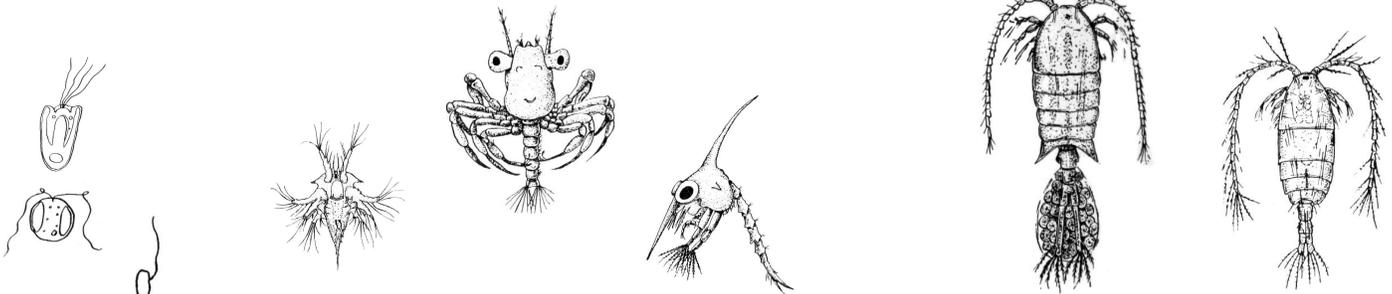
Dinoflagellates have characteristics of both plants and animals. They can photosynthesize like plants. They can also swim like simple animals using flagella, small whip-like appendages. They are the second most important producer in the ocean after diatoms. Two species of dinoflagellates are responsible for red tides.



## Zooplankton

Zooplankton are animal plankton. Some zooplankton spend their entire lives as plankton. They are called **holoplankton**. Other zooplankton are just a stage in the live cycle of an animal. Those are called **meroplankton**.

Zooplankton can be further classified by size. **Nanoplankton** is the smallest plankton (5/1000 mm to 60/1000 mm). They are primarily of single-cellular animals that eat phytoplankton. **Microplankton** (61/1000 mm to 1 mm) is mainly meroplankton, the eggs and larvae of invertebrates. **Macroplankton** (over 1 mm) contains mainly holoplankton, such as copepods and amphipods. **Megaplankton** are the large animals that move with the currents or are poor swimmers such as the Portuguese man-o-war and the sunfish.



**Nanoplankton**

**Microplankton**

**Macroplankton**