

What is Plankton?

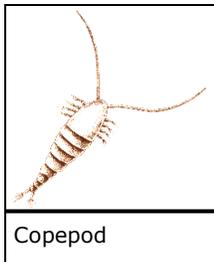
Some of the most important residents of the world's oceans cannot be seen with the naked eye. Plankton, derived from the Greek word *planktos* meaning "to wander," are microscopic plants and animals that form the base of the marine food web.

Plant or Animal?

Phytoplankton are plant-like plankton. Like land plants, phytoplankton use sunlight, water, and carbon dioxide to produce their own energy through a process called **photosynthesis**. Oxygen is a by-product of photosynthesis and is used by marine and land animals. Phytoplankton produce approximately 60% of the oxygen we breathe!

Zooplankton are animal plankton.

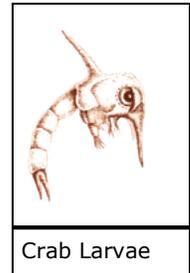
Holoplankton are planktonic throughout their entire lives. Examples of holoplankton include diatoms, radiolarians, and copepods. **Copepods**, tiny crustaceans, are one of the most abundant zooplankton in the ocean. They are an important food source for seabirds, whales, fish and other crustaceans such as krill.



Meroplankton are only planktonic for a portion of their life. Crabs, lobster, barnacles, sea stars, and fish start out

their lives as planktonic larvae drifting with the ocean's currents.

Members of the zooplankton community migrate within the water column vertically each day, whereas phytoplankton stay at the surface where sunlight is plentiful.



Can we see Plankton?

Most plankton are microscopic. Specialized nets with a collection cup can be dragged through the water along a dock or off the side of a boat to collect plankton. Plankton is best observed in a laboratory under a microscope. Plankton are also studied by scientists via remote sensing by satellites that are continuously orbiting the earth and collecting data.

Adapted and excerpted from:

Phytoplankton, Plants of the Sea, Rhode Island Sea Grant Fact Sheet P637 by Prentice K Stout

Zooplankton, Rhode Island Sea Grant Fact Sheet P651 by Prentice K Stout

Images from Rhode Island Sea Grant

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