

The following article was submitted to RISAA Newsletter in 2007. We think it's worth repeating.

PLANKTON - Say What?

by Najih Lazar

Plankton are organisms that live in the water. They are carried by waves, tides and currents. Their name comes from the Greek word "planktos" meaning drifter. Plankton comes in many different shapes and sizes. They are grouped into two categories: plants (phytoplankton) and animals (zooplankton).

PHYTOPLANKTON

Phytoplankton are tiny, microscopic plants and bacteria. They don't have roots, stems or leaves like land plants. They look more like tiny beads or tiny spiky balls. Like land plants, phytoplankton **need light in order to grow**. Thus, they are usually found in the shallow surface waters and they can range in size from 0.001mm to 1cm.

ZOOPLANKTON

Zooplankton range in size from tiny microscopic organisms, such as **protozoans** and rotifers, to larger plankton called **macroplankton** such as jellyfish, shrimp, and fish larvae. They are **not dependent upon light** for food like phytoplankton.

Some zooplankton move under their own power. They migrate towards the surface water at night to feed on phytoplankton or small zooplankton.

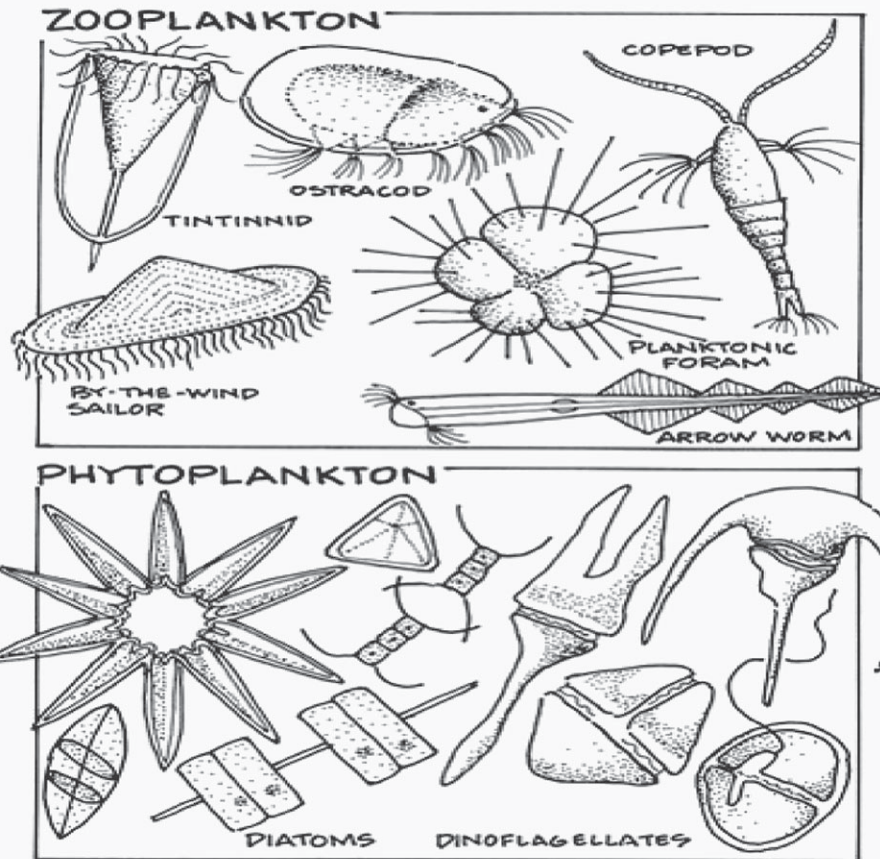
They sink to deeper waters during the day to avoid being eaten by larger animals. They can range in size from 0.02mm to 15 or 16cm.

Plankton are an important source of food for larger animals.

Phytoplankton are the first link in the food chain. They are known as primary producers because they produce the first forms of food.

Zooplankton and other small animals that graze on the phytoplankton are known as primary consumers. These, in turn, become food for larger organisms such as bivalves, crustaceans and fish such as menhaden. The fish and other animals then become food for animals near the top of the food chain, such as harbor seals and man.

Plankton are very sensitive to changes in the quality of the water. They help to tell us about the environmental conditions within our estuaries.



Phytoplankton need light and nutrients to live.

The phytoplankton population may grow rapidly if the water temperature rises and there are lots of nutrients. These dense "blooms" can change the color of the seawater so much that it can be seen from space.

They may hurt the environment since they block the sunlight from reaching the bottom in shallow areas.

During these blooms, the phytoplankton die and sink to the bottom where they decompose. This process uses up

oxygen in the bottom waters where fish, lobsters, crabs and other animals live.

Narragansett Bay is home to several hundred different species of plankton monitored by the DEM Division of Fish and Wildlife.