



**Cabrillo  
Marine  
Aquarium**

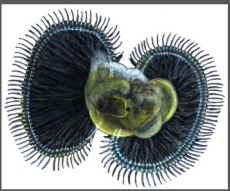


# FISHIN' FOR F.A.Q.'S

VOLUME IV

ISSUE I

## MARINE PLANKTON



**Plankton are an essential component of life on Earth.**

Marine plankton, found in all ocean ecosystems, play a critical role in maintaining the health and balance of the ocean and its complex food webs.

*Plankton—derived from the Greek root planktos, meaning "wanderer" or "drifter" are unable to swim against tides currents, or waves. The word refers to the numerous organisms floating throughout aquatic ecosystems.*

**Planktonic organisms are food for a range of animals from barnacles and sea squirts to large fish and whales.**

**Q. What are plankton, anyway?** Plankton are a group of marine and freshwater organisms that drift along with the current. They exist in oceans, lakes, rivers, and streams and are an important food source for organisms in an aquatic environment. There are 2 main types of plankton: **phytoplankton** and **zooplankton**.

**Q. What is phytoplankton?** Phytoplankton are tiny, **photosynthetic** organisms and can make their own food using energy from sunlight, producing oxygen & nutrients for other organisms. With 71% of the Earth covered by the ocean, phytoplankton are responsible for producing up to 50% of the oxygen we breathe. These microscopic organisms also cycle most of the Earth's carbon dioxide between the ocean and the atmosphere and include **dinoflagellates**, **diatoms**, and **cyanobacteria** (better known as 'blue-green algae').

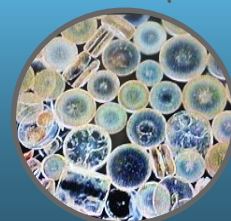
**Q. What is zooplankton?** Zooplankton are drifting animals that rely on water currents to move any great distance. They are usually larger than phytoplankton, ranging from tiny **copepods** to large sea jellies. Zooplankton are an incredibly important food source in the ocean, feeding animals as small as other (slightly larger) zooplankton and as large as the blue whale! There are two major types of zooplankton – those that spend their entire lives as drifting plankton (called **Holoplankton**) and those that only spend early stages of their life as plankton (called **Meroplankton**) and eventually develop into larger adult organisms.

**Q. What types of marine organisms are meroplankton?** Meroplankton includes sea urchins, sea stars, most of the sea snails and slugs, barnacles, crabs, lobsters, shrimps, squids, clams, octopus, most marine worms & reef fishes, and many others!

**Q. How big can plankton grow?** Some species of plankton are microscopic, while others are hard to miss, like the jellyfish! Jellyfish are plankton and the largest known species is the lion's mane jellyfish. The largest recorded specimen, had a bell over 6 feet across and tentacles measuring 120 feet long! That makes it one of the longest-known animals in the ocean!

### AT CMA

Be sure to stop by the **EXPLORATION CENTER** and take a look at what's under the microscope!!!



### JUST FOR LAUGHS

**Q. What did one ocean drifter—say to the other ocean drifter?**

**A. Long time —no 'sea'!**

### FAST FACTS ON A LOCAL SPECIES

**Common Name:** Copepod

**Scientific Name:** Copepoda

**Habitat:** open waters

**Range:** worldwide; live in virtually all marine and freshwater habitats

**Size:** average length is 1-2mm (0.04 to 0.08 inches); the smallest is 0.2mm, and the largest is 32cm (13inches).

**Diet:** plant & animal plankton

**Common Relatives:** shrimp, crabs, lobsters, barnacles, krill and ostracods

**Cool facts:** A single copepod may eat from 11,000 to 373,000 diatoms in 24 hours & may be the most abundant single species of animal on Earth!

