

Nekton, Benthos, & Plankton - Lecture Script

Marine life in the oceans includes organisms of all sizes, shapes, and character - from the smallest bacteria and protists - single-celled heterotrophs and autotrophs visible through only the highest power microscopes - to the largest organism on planet Earth at 100 feet long - the Blue Whale. Each of these organisms interacts with and is affected by the oceans in different ways. Let's explore how and why.

We'll begin by reviewing how marine organisms are classified by location - either as plankton, nekton, or benthos. **Nekton** are organisms that spend most of their time in the water column and can swim freely and faster than currents. Examples include whales, most fish, and squid. **Plankton** are organisms that live in the water column, but that either cannot swim or cannot swim faster than currents. Examples include microscopic foraminifera, coccolithophores, radiolarian, diatoms, dinoflagellates, and the larvae of many marine animals, such as crabs, fish, and sea stars - as well as larger organisms like floating sargassum weed and jellyfish. **Benthos** are organisms that live on or in the seafloor sediment. These organisms can be attached or freely moving, but must be unable to swim. Examples include anemones, clams, sea stars, crabs, and most seaweeds, which attach to rocks by holdfasts. What about organisms that live mostly on the bottom, but that can also swim? Like octopus, sawfish, rays, and flatfish? We call these organisms **nektobenthos**.