

Let's visit an underwater forest near Point Lobos, California, where kelp grows tall, reaching toward the sunlight above.

Its fallen blades litter the seafloor below, providing nutrients for a host of creatures...

Including these spiny purple sea urchins, which move slowly in search of food.

Sea urchins make a tasty meal for this marine mammal.

Sea otters help keep the sea urchin population in check. Too many sea urchins will devour living kelp, destroying the forest.

We consider otters a keystone species: their sea-urchin diet protects the kelp and helps to maintain diversity and balance in this ecosystem.

But we're seeing just one small part of an intricate network...

Sunflower stars also prey on sea urchins—and may become dinner for a hungry sea otter!

But otters prefer abalone and crabs.

Kelp provides food and shelter for snails as well as crabs and their tiny crustacean cousins.

They find some protection among the kelp blades, but small fishes can still surprise them!

All these animals and plants are immersed in a rich food source—a sea of microscopic phytoplankton drifting in the water.

From the smallest microbes to the largest animals, these species take part in a diverse food web that links more than a thousand species.

The connections in the web represent the transfer of energy with every meal.

Where does all this energy come from?

Our star, the Sun, drives all this activity. It supplies energy for almost all life on Earth.

Kelp and phytoplankton, with their ability to capture the Sun's energy, are known as primary producers. We consumers would be nowhere without them.