

# Seaweed Habitats

Seaweeds flourish along a thin ribbon of ocean that hugs the world's landmasses. Here, they find the three elements they need to survive:

1. something to hold onto to stay in one place
2. sunlight to provide the energy they need to produce their own food, and
3. nutrients to fuel their growth.



*Nereocystis luetkeana*

While this area makes up less than 2% of the entire sea floor, this is where marine algae are the supreme eco-engineers. Seaweed oxygenate the waters, create habitats for countless other organisms, and form the base of a food chain that keeps our planet rich in life.

The *intertidal zone*, located directly next to our shores, fluctuates between high and low tides. In this zone, six-hour cycles of swelling and receding tides reveal parts of the shoreline twice every day. Extreme full moon or new moon cycles exert a stronger pull, revealing greater swaths of shoreline a few times a month.

In the *subtidal zone*, light penetrates the waters, but in varying amounts. This strip of ocean stretches from the wave break zone into the deep and dark pelagic, plunging down to 300 feet in depth. This area is constantly submerged in water, and is located further out to sea than the *intertidal zone*.

Akin to rainforests on land, *kelp forests* generate copious amounts of oxygen for planet Earth. These three-dimensional, nearshore habitats are home to an astonishing number of species. The abundant strands of kelp protect young larvae as they grow to maturity and provide a place for fish and invertebrates to hide from predators and nurse their young. Kelp forests also increase the productivity of other nearshore ecosystems, oxygenating the waters and providing the detritus that abalone, mussels, and other filter feeders love.



*Macrocystis pyrifera*