

The Rocky Intertidal Zone



At the land's edge life is challenging. Water advances with incoming tides and retreats with outgoing tides. This strip of habitat is called the Intertidal zone. It can be subdivided into three zones.

High intertidal zone: The splash zone is the uppermost area of the high intertidal zone. The splash zone is covered with water for only a few hours during the peak of the highest high tide of the day. Rocks in the splash zone are overgrown with microscopic plants called diatoms. Limpets and periwinkles feed on these mats of diatoms. The High intertidal zone is inundated during all high tides. At times animals and plants are stranded high and dry on their rocky homes for hours at other times they are inundated and often are pounded by surging waves. Residents of the high intertidal zone include the following sessile animals: Limpets, barnacles and mussels. Deeper within this zone black abalones and giant green anemones can be found clinging to rocks. Mobile residents include a variety of worms, Ochre- and bat stars, the lined shore crab and Hermit crabs. Black turban snails migrate throughout the intertidal zone during high tides. Rockweed, sea lettuce, turkish towel and sea palms also inhabit the high intertidal zone. One thing all these organisms have in common is their ability to survive being out of the water for some period of time and withstand the force of pounding waves.

Middle intertidal zone: This zone is covered with water for most of the day and only exposed during the lower of the two low tides. Just past the mussel zone red coralline algae appear. Their presence marks the beginning of the middle intertidal zone. Algae such as dead man's finger and feather boa kelp that are absent from the high intertidal zone are abundant in the middle intertidal zone. Animals of the middle intertidal zone include Sea urchins, more giant green anemones, aggregating anemones, Lined chitons, a great variety of limpets and fish such as sculpins, rockweed gunnel, and clingfish.

Low intertidal zone: This zone is only dry during the lowest low tides of the month. The beginning of the low intertidal zone is marked by the appearance of surf grass. Surf grass is a true flowering plant, not an alga. Invertebrates include sponges and tunicates, red rose anemones and strawberry anemones, leather stars and nudibranchs that prey on the anemones, and sea cucumbers. The lowest part of the intertidal is visited by larger fishes and the monkey faced eel which is not a true eel.

Sources: A Natural History of the Monterey Bay National Marine Sanctuary. Monterey, CA: Monterey Bay Aquarium in Cooperation with National Oceanic and Atmospheric Association Sanctuaries and Reserves Division, 2006. Print.

