

## Life in the Rocky Intertidal Zone

Tidepools provide a home for many animals. Tidepools are created by the changing water level, or tides. The high energy waves make this a harsh habitat, but the animals living here have adapted over time. When the earth, sun and moon align during the full and new moon we have extreme high and low tides. Generally, there are two high tides and two low tides a day. An example of low and high tide is seen on the right.

There are three zones within the tidepools: the high zone, the middle zone, and the low zone. Animals are distributed based on their adaptations to different living (competition and predation) and no living (wave action and water loss) factors. The tidepools at Cabrillo are protected and have been monitored by the National Park Service since 1990. You may notice bolts in the rocky intertidal, these are used to assist scientists in gathering data to monitor changes.



Low Tide

High Tide

## **Tidepool Etiquette:**

Human impact can hurt the animals. As you explore the tidepools, you may touch the animals living here, but only as gently as you would touch your own eyeball. Some animals may die if moved even a few inches from where they are found. Federal law prohibits collection and removal of any shells, rocks and marine specimens. Also, be aware of the changing tides, slippery rocks and unstable cliffs. **Have fun exploring!** 

High Zone (Supralittoral or Spray Zone) The high zone is covered by the highest tides. Often this area is only sprayed by the crashing waves. The animals who live here must endure a long time without water. Below are common examples of what you can find in the high zone.



Mussels and Barnacles



Thatched Barnacles



Gooseneck Barnacles



Owl Limpet



Limpets



Shore Crab



Periwinkles



Acorn Barnacles



Conspicuous Chiton



Chiton



Isopod



Hermit Crab

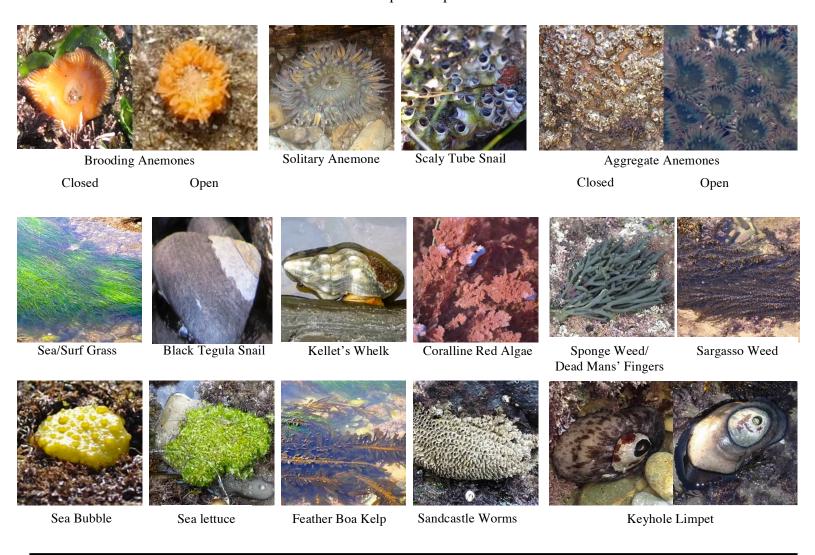
\*Photos are not to scale. Thank you to the Tams for most of these photos.

The best time to visit the tidepools is during the new or full moon; a negative low tide is recommended for the best exploring.

If you are interested in learning more, visit the tidepool education table or volunteer to help protect this unique and beautiful place. For volunteer opportunities contact: Cabr\_volunteers@nps.gov

## Middle Zone (Littoral Zone)

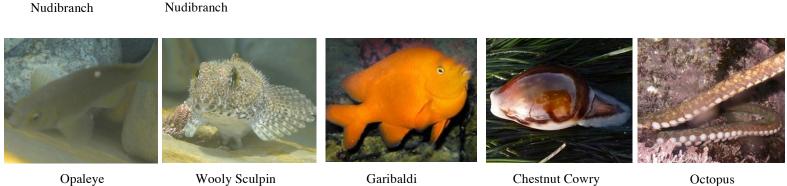
The middle zone is covered by the highest tides and exposed by the lowest tides. The animals here have to be able to live both in and out of water. The anemones close up and cover themselves in bits of shell and other debris in order to retain moisture during low tide. Below are some examples of species in the middle zone.



Low Zone (Sublittoral or Subtidal Zone)

The low zone is only uncovered during the lowest tides. Animals here are submerged in water most of the time. Some of the animals in this zone like to hide under surfgrass because it provides shelter. Below are some animals found in the low zone.





This brochure was made possible through the work of Katie Eskridge, a Girl Scout who used the tidepools as the subject for her Gold Award Project.