

Northern California Tidepools

A guide to intertidal plants and animals from Oregon to the Central Coast

Organisms are boxed together with others in the same **phylum** (for animals) or **division** (for plants).

common name(s)

A single species might have several common names. When doing research, always use the scientific name to be precise.

scientific name

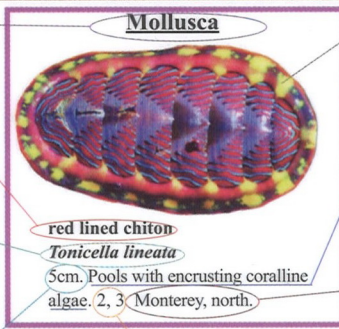
When *spp.* appears in the species position (such as *Chthamalus spp.*), it applies to more than one species in the same genus. When only *sp.* appears (such as *Haliotis sp.*), it indicates that the identity of the species is undetermined or not yet named.

measurement

Average size of a mature organism.

favored intertidal zones

The numbers 1, 2, or 3 or the letter "s" (for "splash zone") pertain to the diagram immediately below. If none is listed, the organism can be found in any zone.



red lined chiton

Tonicella lineata

5cm. Pools with encrusting coralline algae. 2, 3 Monterey, north.

photograph

Individuals vary greatly in color. Pay greater attention to shape, texture and habitat, which vary less.

habitat

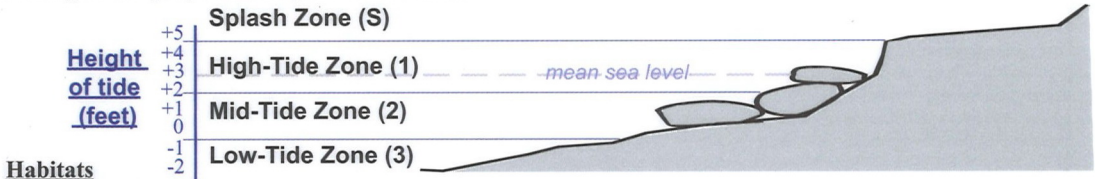
Typical habitats are keyed to the nine photographs below, under **Habitats**. If no habitat is listed, the organism can be found in any of these habitats. Other species listed (e.g., "encrusting coralline algae") typically refer to **Seaweed**.

range

If no range is listed, the organism ranges over the entire northern California coast (see map).

The Intertidal Zone

The gravitational influence of the moon upon the Earth causes two low tides and two high tides daily on the California coast. The intertidal zone is the belt of shoreline that lies between the highest point reached by waves and the lowest point exposed during low tide. This intertidal zone is further divided into four biological sub-zones determined by the amount of time each lies out of water, exposed by the cycle of tides. Specific marine species seek to inhabit ideal sub-zones according to their capacity to tolerate exposure to the sun and air.



Habitats



Tidepools
Pools retaining water after the tide goes out are the most active habitat on the rocky coast.



Protected rocks or coast
Shoreline or rocks blocked from direct waves harbor organisms vulnerable to harsh surf.



Exposed rocks or coast
Rocks exposed to continuous surf stay wet and discourage some predators and competitors.



Surge channels
Deep fissures with good water circulation favor denizens of the lowest tide zone.



Rock fields
Loose rocks shelter creatures that shun sunlight. They emerge at dusk and retreat after dawn.



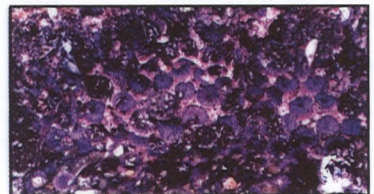
Mat algae flats
Low-growing algae fields (e.g., *Gastroclonium* or *Neorhodomela*) feed and shelter organisms.



Surfgrass flats
Pools of surfgrass feed and shelter many organisms amongst its leaves and roots



Mussel beds
Dense clusters of mussels covering exposed rock provide protection to smaller creatures



Urchin pools
Pools formed by urchin burrows, infiltrated by kelp flatsam, make a teeming low-tide habitat.

Cnidaria (Anemones, Corals, Jellyfish and Hydroids)

Soft-bodied cnidarians have tentacles surrounding their mouths. These tentacles carry stinging and sticking cells (nematocysts) used to stun and capture prey (fish, arthropods, urchins) or for defense (although the cnidarians listed below are harmless to people). Hydrooids are feather-shaped colonies attached to rocks. Sea-going jellyfish are occasionally washed into the tidepools, but sea anemones (which can live up to 300 years) are abundant residents. Out of water, anemones pull their tentacles into their bodies, leaving only their doughnut-lie, tubed "columns" visible. One may also see them with their stomachs exposed. Poking or stepping on these sensitive animals can kill them.



ostrich-plume hydroid
Aglaophenia sp.
12cm. Protected spots on exposed coast. 3



by-the-wind sailor
Velevella velevella
8cm. Thousands of these hydroid colonies drift ashore in spring



moonglow anemone
Anthopleura artemisia
5cm. Color varies. Slender tentacles, usually striped and equal in length. Buried in sand with only tentacles exposed. Rock fields. 2, 3



aggregating anemone
Anthopleura elegantissima
3-10cm. In masses of small clones reproduced asexually by dividing their own bodies. Gravel covering skin holds in water. 1, 2



giant green anemone
Anthopleura xanthogrammica
17cm. Large tidepools and channels. 3



beaded anemone
Urticina coriacea
10cm. Crevices, channels, pools. 3 Carmel, north.



proliferating anemone
Epiactis prolifera
3cm. Color varies. Often with young (note white spots) on the column's base. (Anemone on right has tentacles withdrawn.) Surfgrass flats, rock fields. 2, 3



solitary orange cup-coral
Balanophyllia elegans
0.5cm. Firm, crusty skeleton. Rock fields, surge channels, crevices. 3

