

CRABS | Phylum Arthropoda
Subphylum Crustacea

Crabs can be distinguished from other crustaceans by their two claws and four pairs of legs. Netarts Bay and nearby coastal areas are home to a diverse assortment of species ranging from rock and shore crabs to spider-like kelp crabs, and even tiny hermit crabs.

WHERE TO FIND THEM:

Check for hermit crabs in shallow pools. Find rock crabs buried in the sand near rocks within the low tide zone. Look for shore crabs nestled between mussel shells. Spot kelp crabs clinging to seaweed.



Range: Alaska to Baja California

FUN FACTS

- Some local hermit crabs have white bands and blue dots on their legs.
- Decorator crabs attach bits of algae and debris to their shell for camouflage.
- The Oregon shore crab thrives in muddy burrows, using special bristles to filter sediment from their gills.



GIANT ACORN BARNACLE | Balanus nubilus
Phylum Arthropoda

Reaching up to 15 cm (6 in) across, this species is reputed to be the world's largest barnacle. Locally, find them among the rocks at Tunnel Beach in Oceanside. Look inside empty barnacle homes for granular claw crab and other animals.



GOOSENECK BARNACLE | Pollicipes polymerus
Phylum Arthropoda

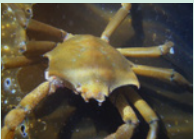
This strange and distinctive-looking barnacle lives in the mid to high tide zones of surf-exposed shores, and can be found interspersed between California mussels along the rocks. They have long, narrow bodies that can be up to 20 cm (8 in) long.

NETARTS BAY & SURROUNDING COASTAL AREAS
TILLAMOOK COUNTY, OREGON

FIELD GUIDE
TIDE POOLS



FLAT PORCELAIN CRAB
Petrolisthes cinctipes



KELP CRAB
Pugettia producta



PACIFIC ROCK CRAB
Romaleon antennarium



GRACEFUL DECORATOR CRAB
Oregonia gracilis



HERMIT CRAB
Pagurus hirsutiusculus



PURPLE SHORE CRAB
Hemigrapsus nudus



OREGON SHORE CRAB
Hemigrapsus oregonensis



RED ROCK CRAB
Cancer productus



THATCHED BARNACLE | Semibalanus cariosus
Phylum Arthropoda

This barnacle, known for its heavily ridged shell, is often seen attached to mussels living on the surf-pounded rocks of the outer coast. In the shell, grows to up to 6 cm (2.4 in) across.



SHARP ACORN BARNACLE | Balanus glandula
Phylum Arthropoda

The most common intertidal barnacle in the Pacific Northwest, these creatures range from Alaska to Northern Mexico. Less than 2.5 cm (1 in) in diameter, they can be identified by their distinct white, volcano shaped shells. If crowded, the barnacles will grow tall, narrow shells as seen here.

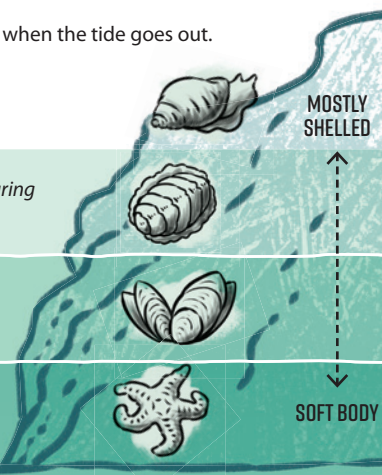
WHAT IS A TIDE POOL?
A shallow pool left in low places on rocky shore when the tide goes out.

SPRAY ZONE Only ocean spray and big storm waves reach this area.

HIGH TIDE ZONE Dry most of the time except during the peak of high tides.

MID TIDE ZONE Dry at low tides and wet at high tides.

LOW TIDE ZONE Almost always covered except at the lowest tides.



ROCKWEED ISOPOD | Pentidotea wosnesenskii
Phylum Arthropoda

One of the largest and most common intertidal isopods, their hooked claws allow them to hold on to kelps even in heavy surf. Look to spot them clinging to grasses on the lower rocks of Tunnel Beach. Size: up to 4 cm (1.6 in)



SEA SLATER ISOPOD | Ligia oceanica
Phylum Arthropoda

Sometimes called the rock louse, these creatures prefer to live above the splash zone, often in caves or crevasses out of direct sunlight. They are most commonly seen in late spring or summer, during their mating season. Size: up to 3 cm (1.4 in).



GIANT GREEN ANEMONE | Anthopleura xanthogrammica
Phylum Cnidaria

One of the world's largest anemones, its column can reach up to a foot in diameter. You can find them in the low tide zone along the coast. Look among the rocks below bands of California mussels (and ochre sea stars, if they are present). Size: Up to 30 cm (12 in).



AGGREGATING ANEMONE | Anthopleura elegantissima
Phylum Cnidaria

Large groups of this anemone can be found covering rocks in the mid-tide zone of Tunnel Beach and other coastal areas. They have pink tipped tentacles and only grow to 8 cm (3 in) across. Frequently covered by sand that is washed ashore, they can live for up to 3 months while completely buried.

HOW TO KEEP THIS HABITAT CLEAN AND SAFE

- LOCATION:** Consider where you will be exploring. Each tide pool area is different. Know when high tide is and leave before your return route is cut off by rising water.
- WHEN:** It's best to explore 1-2 hours before a negative low tide.
- WEAR:** Sturdy shoes or boots.
- WATCH WAVES:** Keep your eyes on the ocean, sneaker waves and storms can bring the water closer to shore.
- STEP CAREFULLY:** Step around animals on rocks and sand. Avoid slippery kelp and seaweed.
- BE GENTLE:** Touch gently, never pry an animal off a rock, and return everything where you found it.
- OBSERVE:** Seals, sea lions, and birds use the rocks to rest or nest. Please keep your distance.
- PACK IT OUT:** Leave nothing but footprints, and pack out any trash you find.

OCHRE SEA STAR

Pisaster ochraceus
Phylum Echinodermata



Though they might appear stationary, ochre sea stars move through a system of thousands of tiny tube feet.



Tube feet



Color variations



Range: Alaska to Baja California

These echinoderms are known for their bright coloration, which ranges from yellow-orange to brown and purple. They can often be found attached to rocks, or huddled in groups below the mussels, which they feed on. Size range: 10 to 25 cm (4 to 10 in).

MOLLUSKS

Phylum Mollusca

FUN FACTS

Tide pools are home to a wide variety of mollusks: soft-bodied invertebrates. Many mollusks, like mussels, chitons, snails, and limpets, rely on shells for protection. The species that can be found in Netarts Bay include a number of different chitons, sea snails, and limpets.

WHERE TO FIND THEM:

Both chitons and sea snails can be found in the rocky areas along Netarts Bay and in nearby coastal tide pools. Sea slugs are common deeper in the bay and in the mid to low tide pool zones.



Range: Alaska to Mexico

- The ribbed limpet is a ‘homer’ which will return to its preferred spot on a rock after foraging.
- The lined chiton’s zigzag stripes come in many colors, including pink, orange, white, blue, and brown.
- Some mollusks like the dogwinkles are carnivores, using their radula to drill holes in mussel shells.

MONTEREY SEA LEMON

Doris montereyensis
Phylum Mollusca



Though they typically only grow to 7.5 cm (3 in), the largest sea lemons can exceed 15 cm (6 in).



Egg Sac



Gills



Range: Alaska to California

Taking their name from their distinct yellow coloring, these sea slugs can be found in the lower intertidal region along the rocky outer coast, where they feed on yellow green sponge. Grows to 7.5 cm (3 in). The largest sea lemons can exceed 15 cm (6 in).



SIX-RAYED STAR

Leptasterias hexactis
Phylum Echinodermata

These small scavengers are common among the basalt cliffs and stacks found along the coastal beach in Oceanside. They can grow to a little more than 5 cm (2 in), and feed on barnacles, limpets, snails, and small mussels.



PURPLE SEA URCHIN

Strongylocentrotus purpuratus
Phylum Echinodermata

These urchins, colored a vivid purple, reach up to 7.6 cm (3 in) across. They use their sturdy spines to dig shelter holes into solid rock and may be found in a deep, tank-like tide pool at Tunnel Beach.

CALIFORNIA MUSSEL

Mytilus californianus
Phylum Mollusca
Class Bivalvia



Growing up to 8 or more inches long, these bivalve mollusks are some of the most noticeable creatures in the tide pools along Tunnel Beach. They reside in dense mussel beds on the wave-swept rocks from Maxwell Point to Cape Meares.



Mussels attach to rocks with byssal threads



Mussel worms & other animals can be found hiding between mussel shells.



Range: Alaska to Baja California

Mussels securely attach their shells to rocks and each other using byssal threads. This stops them from being swept away by crashing waves.



HORNED NUDIBRANCH

Hermisenda crassicornis
Phylum Mollusca

Formally called the opalescent sea slug and now sometimes called thick-horned, these slugs are known for their brilliant colors, an adaptation designed to ward off potential predators. They grow up to 7.5 cm (3 in) long, but only live less than a year.



Photo: Claudine Rehn

LEOPARD DORID

Diaulula odonoghuei
Phylum Mollusca

Also known as the northern leopard or spotted leopard doris, these creatures can be easily recognized by their velvety appearance and the dark brown-black rings on their dorsal surface. They can grow quite large—up to 10 cm (4 in).



TAR SPOT SEA CUCUMBER

Cucumaria pseudocurata
Phylum Echinodermata

These tiny sea cucumbers, no more than an inch and a half long, can be found nestled in beds of mussels. They are said to resemble dark tar spots atop the mussel shells they’ve attached themselves to. Grows to 1.5 - 3 cm (0.59 - 1.18 in).



GIANT RED CUCUMBER

Apostichopus californicus
Phylum Echinodermata

These creatures, found in the deeper channels of Netarts Bay, are the largest sea cucumbers in the Pacific Northwest. While most will appear brick red, their colors can range from white to almost black. Size: 50 cm (1 ft 8 in) long; 5 cm (2 in) wide.

OTHER COMMON TIDEPOOL MOLLUSKS



MOSSY CHITON
Mopalia muscosa



LINED CHITON
Tonicella lineata



BLACK LEATHER/BLACK KATY CHITON
Katharina tunicata



BLACK TURBAN SNAIL
Tagula funebris



SHIELD LIMPET
Lottia pelta



NORTHERN STRIPED DOGWINKLE
Nucella ostrina



RIBBED LIMPET
Lottia digitalis

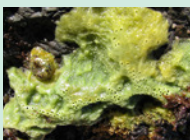
MORE SELECTED INVERTEBRATES



PURPLE ENCRUSTING SPONGE
Haliclona sp.



RED VELVET SPONGE
Clathria pennata



YELLOW GREEN SPONGE
Halichondria panicea



ENCRUSTING TUNICATES
Phylum chordata,
Subphylum Tunicata



RED TRUMPET WORM
Serpula columbiana



SPINY LEATHER BRYOZOAN
Flustrellidra corniculata



OSTRICH PLUME HYDROID
Aglaophenia sp.