



red sea urchin

The bright red sea urchin live on rocky shores. They use their 5, movable teeth as a powerful scraper to feed on seaweeds and kelp. Sea urchins have been known to reach 20 years of age.

photo: Summer Groff



eel grass

Eel grass is one of the few flowering plants found in salt water. It forms large beds, which serve as nurseries for many fish and invertebrates.

photo: Carl Weimer



sea stars

Like many beach animals, sea stars are “invertebrates” or animals without backbones. There are many different kinds on Puget Sound beaches. Some have only five arms; others have 20 or more!

photo: Carl Weimer

acorn barnacle

Barnacles live upside down in their homes. When the tide is in, the barnacle opens its shell and sticks out feathery-looking legs to grab plankton from the water.



photo: Carl Weimer

dog whelk

Welks are usually the most common snail on the beach. Take a close look and see if you can see one attacking a barnacle.



photo: chris coffin

blue mussel



photo: Carl Weimer

Mussels are tethered to rocks, wood and to each other with strong, flexible anchor lines they manufacture themselves. Mussels are a

favorite sea star food and don't last long if they attach to places sea stars can easily reach.

shore crabs



photo: Carl Weimer

Purple shore crabs have polka dot claws. Green shore crabs have hairy legs. All female crabs have broad U-shaped plates on their bellies for carrying eggs. Males have narrow V-shaped bellies.

For information or to report unusual beach findings, call the numbers listed below.

For 24-hour emergencies:
911

Marine mammal stranding:
800-853-1964

Toxic chemical and oil spills:
800-424-8802

Beach closures (red tide hotline):
800-562-5632

Derelict fishing debris:
800-477-6224

Shellfish regulations (clam and crab)
1-866-880-5431

To learn more about our local beaches or to become a volunteer beach naturalist, please contact:
RE Sources for Sustainable Communities

360-733-8307, 800-760-8434,
1155 N. State St Ste 623,
Bellingham, WA 98225
re-sources.org

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What do you see when you go to the beach?



What do you see when you go to the beach? Rocks, sand and water? Seaweed and logs? Look again closely while on your hands and knees, you'll be surprised by what you discover.

When you go to the beach, you're visiting the home of many living creatures. Follow the rules of beach etiquette, so we can continue to enjoy these special places.

Do not move animals from their homes on the beach. Critters that call the beach home are very picky about where they live. Animals such as sea stars and crabs may not survive if they get moved from one place to another.

Gently lift rocks up and put them back the way you found them. Animals living under the rock might die if exposed to the sun and air. Other animals living on top of the rocks, barnacles for instance, will die if the rocks are left upside down.

Fill in any holes. When you dig in the sand, you uncover a lot of animals that need to be covered up to survive. Digging them out of their hiding places also makes them easy pickin's to predators.

Avoid walking on animals. When walking on a rocky beach, try to walk on bare rocks, or on the patches of mud or sand, not on the barnacles and mussels. These animals are still alive, waiting for the next high tide to cover them and bring them food.

Control pets. Do not allow pets to chase birds or other animals. Many migrating birds are resting during their travels and require undisturbed feeding to continue their journey.

Scoop the poop. Animal waste makes the beach dirty and can even make humans and other animals sick. Pick up what your pet leaves behind.

Pick up all trash. A lot of animals mistake plastics and other garbage for food. Trash also entraps and hurts many shore birds and marine mammals.

Types of beaches

The Pacific Northwest is blessed with many different types of beaches, including rocky, muddy and sandy shores. Each beach-type hosts a variety of different organisms, all of which have adapted to their specific habitat.



The rocky shore found at Larabee State Park.

photo: chris coffin

Rocky shores: The plants and animals that live on rocky beaches have specialized methods of attaching themselves to rocks, so they don't get washed away when covered by the tide. See if you can discover the different ways that barnacles, mussels and limpets cling to the rocks. Animals you find under the rocks use this moist, dark environment to hide until they're covered by the next tide. Gently lift up a rock or two and see if you can find an isopod (looks like a potato bug) or a sea star. Remember to return the rock to its original position when you're finished exploring.



Tide pools found in the Pacific Northwest harbor a wonderful diversity of plant and animal life.

photo: chris coffin

Tide pools:

A tide pool is a pool of water left on a rocky shore when the tide goes out. Tide pools usually have higher temperatures, higher salt content and lower dissolved oxygen than sea water. Because of these

harsh conditions, organisms living in tide pools are highly specialized survivors. Can you find a mossy chiton? Look for a bump on the rock that looks as if it has plates of armor. A mossy chiton might be brown, gray or black and have stiff hairs on its girdle.

Sandy shores:

Sand on the beach is shifted by the wind and tides. Many animals that live on these beaches burrow into the sand for protection. Can you see water spurting out of the beach? It's a clam. When you walk close by, the clam feels the sand vibrate and pulls its neck down deeper, causing a squirt of water to shoot up. Sand dollars are another treasured animal living on these beaches. Our local sand dollar is black when alive, white when dead.



This sandy beach at Birch Bay seems to go on for miles.

photo: chris coffin

Muddy beaches: Some muddy beaches are firm enough to walk on, while others are soupy and make walking a chore. Because mud is very dense, animals on these beaches live either near the surface or in tubes or shallow burrows. Can you see evidence of a lugworm? Look for a coiled mound of sand lying on the beach.



Tides create complex patterns in the mud of Padilla Bay.

photo: chris coffin

Can you find one of these?

heart cockle

These big clams live just below the surface of the sand. Empty cockle shells are easy to find. Look for the heart-shaped shells with deep ridges.



photo: Carl Weimer

sand dollar



photo: Carl Weimer

Living sand dollars look like they are wearing black velvet. Actually, the "velvet" is thousands of tiny moving spines that help the sand dollar burrow into the sand.

sea anemone

When not covered by water, sea anemones close up and look like bumps on a rock. When open under water, the sea anemone extends slender pink-tipped tentacles. Touch them gently. Do they feel sticky? These stinger-filled tentacles are used to catch food.



photo: Carl Weimer