

Hidden beneath the waves

Oregon's 362-mile shoreline is more than just sandy beaches and rocky headlands. Retreating tides reveal some of the most diverse coastal ecosystems: tidepools.

The organisms that live here are resilient ocean residents. They battle strong currents, water temperature changes and a lack of food and oxygen. Many tidepool inhabitants work together to survive.

Oregon's tidepools attract thousands of curious human visitors each year. Exploring tidepools can be a fun way to spend an afternoon, but certain precautions must be taken to ensure the resident creatures (and you) remain safe.



Tips for visiting a rocky intertidal area

- **Know the rules before you go.** Oregon Department of Fish and Wildlife regulations protect tidepool animals. Check the Oregon sport fishing regulations (free at most stores selling sporting goods) for rules about collecting animals.
- **Visit the tidepools at least one hour before low tide.** Start with the tidepools closest to the ocean and work your way back with the incoming tide. Bring a tide table too; look for them at a state park or local business.
- **Tides of zero feet and lower are best for visiting tidepools.** Tides up to two feet high can still provide good viewing when the ocean is calm.
- **Travel slowly and carefully.** Rocks and marine algae can be slippery. Also be careful around marine plants like seaweed. Many animals hide under ocean plants to avoid the hot sun and predators.
- **Always stay on marked trails.** Many tidepools are located near unstable headlands and bluffs.
- **Always keep one eye on the ocean.** Exploring a tidepool means you'll be near ocean waves. Make sure an incoming wave doesn't sneak up on you. If a big wave heads your way, lie flat on the rocks and hold on tight!
- **Expect to get wet.** Wear appropriate clothing. If you get soaked, dry off soon. Evening temperatures can drop quickly on the coast, putting you at risk of hypothermia.
- **Look at, in, under and around. Tidepool creatures hide in creative places.** After looking at animals under rocks and seaweed, re-cover them to prevent drying by the air and sun.
- **Touching or picking up animals is OK, but be gentle.** Please return any animal you pick up to the exact spot you found it.
- **Never pull or pry an animal from a rock.** Animals in the tidepools stick to rocks because of the waves and strong currents that wash against them.
- **Bring your binoculars.** Harbor seal pups often rest on rocks and beach areas while their mothers feed offshore. Seabirds also use rocks for nesting and rearing their young. Please enjoy these animals from at least a 50-foot distance.



Please leave plants and animals just as you found them. State parks are nature preserves, where all living things are protected for others to enjoy.

oregonstateparks.org



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Oregon's Rocky Intertidal Areas



SPRAY ZONE

1. Acorn Barnacle
2. Ribbed Limpet

HIGH TIDE ZONE

3. Purple Shore Crab
4. Black Turban Snail
5. Rockweed

MID-TIDE ZONE

6. California Mussel
7. Ochre Sea Star
8. Rough Keyhole Limpet
9. Hermit Crab
10. Black Leather Chiton
11. Gooseneck Barnacles
12. Surfgrass
13. Giant Green Anemone

LOW TIDE ZONE

14. Giant Pacific Chiton
15. Red Sea Cucumber
16. Blue Top Snail
17. Purple Sea Urchin
18. Feather Boa Kelp

BIRDS

19. Nudibranch (Sea Slug)
20. Sunflower Sea Star
21. Sea Palms
22. Peregrine Falcon
23. Pigeon Guillemot
24. Western Gull
25. Black Oystercatcher

Brown text indicates animal.
Green text indicates plant.

Welcome to Our Home

Tidepools are divided into several zones. The zones are classified based on wave action, shoreline features and exposure during tidal periods.

The organisms that live in each zone are dependent on a number of factors: water temperature, wave action, variation in salinity (saltiness), exposure to light and how much water is present. The conditions have to be just right for an organism to be comfortable in each zone.

Some organisms are hardier than others and are able to live in multiple zones. Part of the fun of exploring tidepools is discovering a plant or animal where you least expected it to be!

Spray zone: This area extends from the highest reach of spray and storm waves to the average height of the high tides. It is usually dry, meaning relatively few types of organisms can live here.

High tide zone: This zone includes the area from the average high tide to just below the average sea level. It is a highly saline (salty) environment and experiences higher temperatures than other zones.

Mid-tide zone: This zone extends from just below average sea level to the upper limit of the average lowest tides. Mid-tide zones experience more intense wave action than spray or high tide zones, but nonetheless are rich in animal and plant diversity.

Low tide zone: This zone is exposed to air only at the lowest tides. This keeps temperatures and salinity levels more stable, allowing for more biodiversity than other zones. Organisms here are also more protected from predators—like big fish—because of the wave action and shallow water.



