Let's GO to the Ocean!

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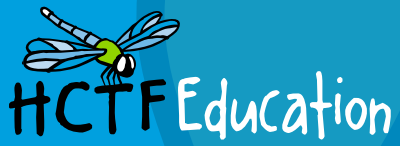


HABITAT CONSERVATION
TRUST FOUNDATION

Habitat and Range Found throughout North America in many marine and freshwater habitats

Conservation Status B.C.: Secure **(YELLOW LIST)**

Some may confuse me with my larger cousin, the sea otter. Maybe that's because you might encounter me in the sea! But unlike sea otters, I may also be found in freshwater and I leave the water to climb the rocks, explore the shore, and to sleep and care for my pups in my den. I'm known to be a playful member of the weasel family, often found with my family sliding down mud or snow banks, and bobbing and diving in and out of the water. My dense fur, webbed feet, and streamlined shape make me well-adapted to life in the water. If you look closely, you may catch a glimpse of my long, thick tail as I dive underwater to catch my favourite food: fish. And then keep watching for me as I resurface to munch away on my catch with my sharp teeth. I'm no picky eater- I'll also eat crabs, shellfish, frogs, aquatic plants, and even birds and rodents. Because I live on both the land and in water, I need to watch out for a variety of predators including wolves, coyotes, cougars, and orcas.

River Otter *(Lontra canadensis)*

Habitat and Range Found in near-shore coastal waters, from California to the Bering Sea

Conservation Status B.C.: Secure **(YELLOW LIST)**

I am in a group of carnivorous, aquatic mammals called the pinnipeds, meaning "fin foot", which includes the seals, sea lions, and walrus. Scientists call me a "true" seal. This means that unlike my relatives, the sea lions, I lack external ears and I can't stand up on my front flippers. Instead I move like a big fat caterpillar when I am on land. But in the water I am an agile and graceful swimmer and I easily catch my favourite fish: sculpin, herring, and hake. I eat over twenty species of fish and savour octopus, too, even though they sometimes cling to my body and try to fight me off. I can hold my breath for 30 minutes and dive over 150 meters deep. I am the most common pinniped along the coast of BC, where I am found year round. Look for us in small groups resting on sandbars or boulders at low tide. If you look closely, you may see me peeking out of the water. You can recognize me by my relatively small size (1.2-1.6 m long, 60 to 80 kg). I have a spotted fur coat, which may be silvery, grey, white, or dark brown. In the spring or summer I haul out on rocks to give birth to a single pup, who weighs 10 kg but doubles in size after a month of nursing. I need to keep vigilant for transient orcas, who find me a tasty morsel.

Harbour Seal *(Phoca vitulina)*

Habitat and Range Ranges across the B.C. coast in coastal mudflats, saltmarsh, and estuaries

Conservation Status B.C.: Special Concern **(BLUE LIST)**

I'm also called the Little Sea Goose. At first glance you may think that I'm a Canada Goose. But I'm much more rare and picky about where I live and eat than my larger and more common cousin! Every spring and fall I migrate thousands of kilometers from my nesting areas in the coastal Arctic tundra to my wintering grounds in Mexican lagoons. I travel in large flocks, stopping in coastal areas along the way to rest and fuel up for the long journey. Beaches near Parksville on Eastern Vancouver Island and Boundary Bay on the Lower Mainland are some of my favourite stops because there is so much tasty eelgrass for me to eat. I try to avoid eagles and get exhausted when dogs chase me. Please be sure to keep your dog on a leash at the beach so that I can get enough food and rest to safely make my journey home.

Brant Goose *(Branta bernicla)*

Habitat and Range Widespread and common on the Pacific Coast in the intertidal zone on rocky coastlines

Conservation Status B.C.: Secure **(YELLOW LIST)**

I am a striking and unmistakable bird with my pink legs, yellow eye, and bright red bill. But my name is a bit of a mystery since I really don't care for oysters. You can find me at low tide, clamouring over seaweed-covered rocks to look for my favourite foods of barnacles, limpets, and mussels, which I probe, chisel, and tear from the rocks and devour with my long bill. I usually feed with others of my kind, or with black turnstones and surfbirds. Unlike many birds along the B.C. coast who only come for winter, I live here all year round. Listen for my high pitched whistle calls, often given as I fly from one rocky area to another. In the spring, I call more often to protect my mate and nesting territory. Males make a nest on the ground above the high tide on rocky coasts and islands. We have 1–4 chicks who can walk soon after hatching!

Black Oystercatcher *(Haematopus bachmani)*


©Dick Daniels

Habitat and Range Common along the Pacific Coast and throughout the B.C. coastline, especially in rocky habitats

Conservation Status B.C.: Secure **(YELLOW LIST)**

I am a robin-sized, chubby shorebird who likes to feed upon rocks and at the tideline. When I am still you probably won't even notice me, as my brown, black and white feathers camouflage me so well among the rocks. But if you find me, look very carefully because there are always others nearby and I rarely dine alone. As my name suggests, I eat by using my strong chisel-like bill to turn over stones, shells, driftwood, and seaweed to find tasty treats. My favourite foods include shellfish, insects, small crustaceans, fish eggs, and sandworms. You surely will notice me when I give my high-pitched, buzzy call as a flock of us fly low across the water. Although you may find me in coastal B.C. year-round, I am most common from August to April. Most of us migrate to the coastal lowlands of western Alaska to nest in summer.

Black Turnstone *(Arenaria melanocephala)*

Habitat and Range A widespread and common year-round resident along the entire coast and offshore islands of the province

Conservation Status B.C.: Secure **(YELLOW LIST)**

You can call me a seagull, but don't be fooled – there are more than a dozen types of gulls on the B.C. coast. But I may be the one that you see most of all, since I live here all year round. It takes me several years to get my adult feathers, but when I do you can tell me apart from other gulls by my completely grey back, yellow legs, and red spot on my bill. I'm also one of the biggest gulls, reaching 65 cm in length. When the tide goes out I feast on crabs, clams, worms, fish, garbage and just about anything I can find, so don't leave your snacks unattended! I have a clever way to open a clam. I fly high up into the air and drop the clam on to a road or the rocks. I keep doing this until the clam breaks open and I can have hard-earned treat. I'm not always at the beach – I also visit freshwater lakes and streams, especially during the salmon spawn.

Glaucous-Winged Gull *(Larus glaucescens)*

Habitat and Range Throughout coastal B.C. in sheltered tide pools, in sheltered tide pools from the Bering Sea to southern California

Conservation Status Unranked, no status

I am a master of disguise, changing my colours to blend in perfectly as I lie motionless in the shadows of the seaweeds, sand, and rocks in my tidepool home. My spiny fins protect me and help me to dart away from hungry birds or bigger fish. For such a small fish, I have big teeth that I use to crack open barnacles, snails, crabs, and mussels. My pectoral (side) fins are extra big and I can use them to "walk" on the bottom of the tidepool. If you catch me, please be gentle and don't handle me as the slime on my skin helps to protect me from infection. And make sure to put me back where you found me; I like to live in the same tidepool my whole life and will try to find my way back!

Tidepool Sculpin *(Oligocottus maculosus)*

Habitat and Range Throughout the B.C. coast in rocky intertidal areas

Conservation Status Unranked, no status

I may have a long skinny body, but please don't call me an eel! Unlike eels who lack most fins, I have tiny pectoral (side) and pelvic (belly) fins. You may find me in shallow tide pools under rocks and among seaweeds. I slither under rocks at low tide where I am safe from predatory fish, birds, and otters. So when you explore the beach and lift up rocks, always make sure to put the rocks gently back or else I might get eaten! I am able to breathe air if there isn't enough water in my tidepool! In late winter, females lay eggs under rocks or in sponges. We make good parents. By wrapping my long body around my eggs I protect them from predators until they hatch. There are many species of elongated, eel-like fish in the intertidal zone, including other gunnels, blennies, cockscombs, and warbonnets. We can be hard to tell apart, but I'm the one with a crescent-shaped light spot on my head. I can reach 25 cm long. I eat smaller animals like snails, clams, bristleworms and little crabs.

Crescent Gunnel *(Pholis laeta)*

Habitat and Range Rocky intertidal zones throughout B.C. and from Alaska to Baja California

Conservation Status Unranked, no status

Some people think I am a big tadpole because of my dark colour, slimy, scaleless skin, my short tail and body shape. But who has ever heard of a tadpole or frogs in the ocean? I am definitely a fish, but my pelvic fins are special. Instead of propelling me through the water like they do for most fish, mine are modified into a suction cup. And are they ever strong! I cling to the underside of rocks and cobbles at low tide. If you find me and transfer me very gently into a small, clear container filled with seawater, you might be able to see my suction cup up close. But if I am clinging to a rock or a container, never try to pry me off or you might hurt me. Instead, let me go back to my tidepool on my own by placing the container into the water on its side. I lay small yellow eggs that I guard until they hatch.

Northern Clingfish *(Gobiesox maeandricus)*

Habitat and Range Throughout B.C. in coastal estuaries and sandy areas

Conservation Status Unranked, no status

Although I can get to be a meter long, in the intertidal zone you might see me when I am about the size of a toonie. I like to live on sandy-bottomed tide pools or mudflats where my mottled brown, white, and black colours make me nearly impossible to see unless I dart away. Like the sole and other types of flounder, I am a flatfish. Take a good look at me and watch how I move through the water. I'm like a swimming pancake, with my eyes, mouth, and gills on the top of my body. I undergo an incredible transformation to get this way. When I am first born, I am shaped like most other fish with an eye on each side of my head. But when I am around two weeks old, one of my eyes migrates to join the other eye! I lie down on the eyeless side. I skim along the bottoms where I find crustaceans, worms and small fish to eat. You can tell me apart from other flatfish by my distinctive black and white markings around the margin of my body.

Starry Flounder *(Platichthys stellatus)*

Habitat and Range The most common intertidal barnacle in B.C. and ranging from the Aleutian Islands to Mexico

Conservation Status Unranked, no status

Some people overlook me or don't even know that I am an animal! I am a crustacean, related to crabs and shrimp. I grow to 2 cm tall and wide. I am very well adapted to life in the intertidal zone and can go for many hours or even days without eating. So you may find me far up on the beach in the high tide zone. But even if the water seems far away, you can be sure that if I am present that the tide will reach me. Until then, I keep my shell plates tightly closed so that I don't dry out. When the tide returns hours later, I open up my shell and stick out my feathery feet, waving them through the water to catch plankton. By living far up the beach I can escape most of my marine predators.

Acorn Barnacle *(Balanus glandula)*

Habitat and Range Common in coastal B.C. in the high intertidal zone. Ranges from Alaska to California

Conservation Status Unranked, no status

I am a beachcomber. I scavenge the intertidal zone for my favourite foods: seaweed and decomposing plants and animals. Like all hermit crabs, I also search for empty snail shells that I rely on for my protective home. As I grow, I must find bigger shells that I can fit in. I may try on many different shells before I settle on the perfect one, and I will even fight off other hermit crabs who also want it. When I am in danger, I tuck myself into my shell and block the opening with my one big claw.

I am common in tidepools in the upper intertidal zone where I can withstand great changes in temperature and salinity. You can recognize me by the hairs on my body and the white bands on my legs and antennae. You might find me scurrying quickly or hiding under rocks or pieces of seaweed.

Remember: when you visit the beach, please leave the shells behind for us hermit crabs!

Hairy Hermit Crab *(Pagurus hirsutiusculus)*

Habitat and Range Along the Pacific Coast from California to Alaska

Conservation Status Unranked, no status

You may have met my cousin, the wood bug, who lives in the soil (but has gills, just like me!) We are isopods: flattened, segmented crustaceans related to shrimp and crabs. I can be up to 3.5 cm long and I use my 7 pairs of hook-tipped legs to strongly cling to marine plants and algae. As my name suggests, you may find me under rockweed (a type of seaweed). My colour varies from brown to green depending on my habitat and diet, keeping me perfectly camouflaged and protected from hungry fish and birds. If your eyes are sharp and you find me, gently look on my abdomen. You just might see my eggs and young that I carry in a brood pouch for several weeks. Put me in a bucket of seawater and watch what a graceful swimmer I am, using my legs as paddles. I am named for Dr. Voznesensky, a Russian naturalist who explored the Pacific coast in the 19th century.

Rockweed Isopod *(Idotea wosnesenskii)*

Habitat and Range On sandy beaches at and above the high intertidal, throughout coastal BC and from Alaska to Central California

Conservation Status Unranked, no status

Some people call me a beach flea because I'm such an awesome jumper. But don't worry, I don't bite! And unlike a flea, I'm not an insect. I'm an amphipod, a type of crustacean related to shrimp. You can find big groups of us keeping moist underneath seaweed washed up on shore above the high tide line. I am a scavenger and at night I eat decomposing organic matter. You can thank me for helping to clean up your sandy beach. In return, please leave the rotting seaweed on the beach for me so I can become food for shorebirds, raccoons, insects, and even bears. I have seven pairs of legs, used for walking, gripping, and swimming. I propel myself into the air like a miniature rocket by tucking my tail under my body and flicking it out quickly. Careful observers may find small holes in the sand that are the exit holes from my burrows.

Pale Beach Hopper *(Megalorchestia columbiana)*

Habitat and Range Low intertidal and subtidal areas of estuaries, bays and lagoons in the Salish Sea and the west coast of Vancouver Island. Ranges from Alaska to Central America.

Conservation Status BC: Special Concern **(BLUE LIST)**; Canada: Special Concern

I am the only native species of oyster in B.C. I once flourished in bays, estuaries, and mud-gravel flats along the Pacific Coast and I played an important role in the traditional diet and culture of many coastal First Nations. But these days I'm rare due to pollution and historic commercial overharvesting. Today you are more likely to find my much larger oyster relatives who were introduced from Japan. Although many of my populations are gone, I'm still found on the west coast of Vancouver Island and in the Gorge Waterway in Victoria. I eat plankton by filtering seawater through my gills. And although I may be small – about 4 cm long – I can filter up to 45 liters of water in a day, making the water clear and clean for fish and other marine life. But if the water is polluted, I may become toxic. I am prey to crabs, snails, sea stars, and birds such as diving ducks.

Olympia Oyster *(Ostrea lurida)*

Habitat and Range High intertidal zone throughout coastal BC. Ranges from Alaska to Baja.

Conservation Status 4 species unlisted; 1 species (*Littorina littorea*) is invasive from Europe.

We are one of five species of small snails living high up in the intertidal zone. We might be the first marine animal that you find as you make your way down to the shore. There can be hundreds of us packed together on rocks, in mudflats or tidepools. I have a 'trap door', called an operculum, that shuts tight when the tide goes out. This way my body is protected and doesn't dry out. I can go for hours or even days like this until the tide or waves reach me again. Once the seawater returns, I open up my operculum and get busy eating seaweed! I eat by scraping my food with a 'radula', which is like a toothy tongue. I am in a group of animals called gastropods, meaning 'stomach-foot'. My stomach-foot is the strong muscle that I use to move around. Our empty shells will become homes for small hermit crabs.

Periwinkle Snail *(Littorina sp.)*

Habitat and Range Bays and harbours throughout the B.C. coast and ranging from Alaska to southern California.

Conservation Status Unranked, no status

I am clear and white, 10-40 cm in diameter. Although I don't have a brain, blood or heart, I am able to smell and to detect light thanks to my simple nervous system, called a nerve net. I can even use the sun as a compass to migrate in a southeasterly direction. I eat zooplankton, which I catch using my stinging cells and the mucous on my body. In the spring when the plankton blooms, I can be found drifting around and feeding in quiet bays and harbours. My mouth is on the underside of my body and is the same opening where the waste comes out. Although my sting may be weak to humans, it can still cause a slight rash. Large groups of us (called a "smack") congregate during spawning in sheltered waters. Like other jellyfish, my population may be increasing as I benefit from human impacts on the ocean, such as overfishing, pollution, and climate change.

Moon Jelly *(Aurelia labiata)*

Habitat and Range Rocky coastal areas of B.C. and ranging south to central California.

Conservation Status Unranked, no status

I look like a smooth and shiny crust of miniature purple or pink volcanoes growing on rocks in the mid to low intertidal zone. Of course I'm not actually a volcano, nor am I a plant or algae. I'm actually a colony of tiny animals called a sponge, and one of the only sponges that you can see in B.C. without going scuba diving. I am a filter feeder, transporting food and oxygen from seawater through a system of canals throughout my body. The volcano-like holes on my surface are called oscula and are the exit doors for the water. I am eaten by nudibranchs (also known as sea slugs), such as the leopard dorid.

Purple Intertidal Sponge *(Haliclona permollis)*

Habitat and Range On kelp fronds and algae in shallow coastal waters throughout B.C., and from Alaska to Baja.

Conservation Status Unranked, no status

Although I am common in the spring and fall, few people notice me- a thin white crust on the fronds of eelgrass and seaweed, which I call home. I am in a group of animals called Bryozoans or "Moss Animals". I am less than a millimeter long, but I live in circular-shaped colonies with thousands of my kind, measuring up to 7 cm across. Protruding from my tiny calcified box, my tentacles draw seawater to my mouth, which filters out my meal of dead algae. In turn, I am prey for small sea slugs who are perfectly camouflaged upon my white, lacy surface. I invite you to take a closer look at my tiny world with a magnifying glass – you might be amazed at the patterns and intricate beauty that you find.

Kelp-Encrusting Bryozoan *(Membranipora serrilamella)*

Habitat and Range Sheltered, muddy bays along about a third of BC's coast, including near Tsawwassen, Clayoquot Sound, and Massett Inlet on Haida Gwaii.

Conservation Status Secure **(YELLOW LIST)**

I am not a grass or seaweed, and definitely not an eel! I am a flowering plant who grows near the low tide line in muddy sediments of estuaries, sheltered bays, and inlets throughout the northern hemisphere. When undisturbed I grow in expansive meadows, which are one of Earth's richest and most productive habitats. I may be called "common", but I have some pretty uncommon and important roles in marine ecosystems. More than 100 species of microscopic algae can grow on my blades and I shelter more than 70 species of fish—not to mention countless invertebrates—so I attract diverse birds who feed among my roots. I also filter some pollutants and help to protect coastlines from flooding and erosion. I am threatened by habitat loss caused by coastline development and pollution. My cousin, the surfgrass, has thinner blades than I do and grows on rocks and exposed sites.

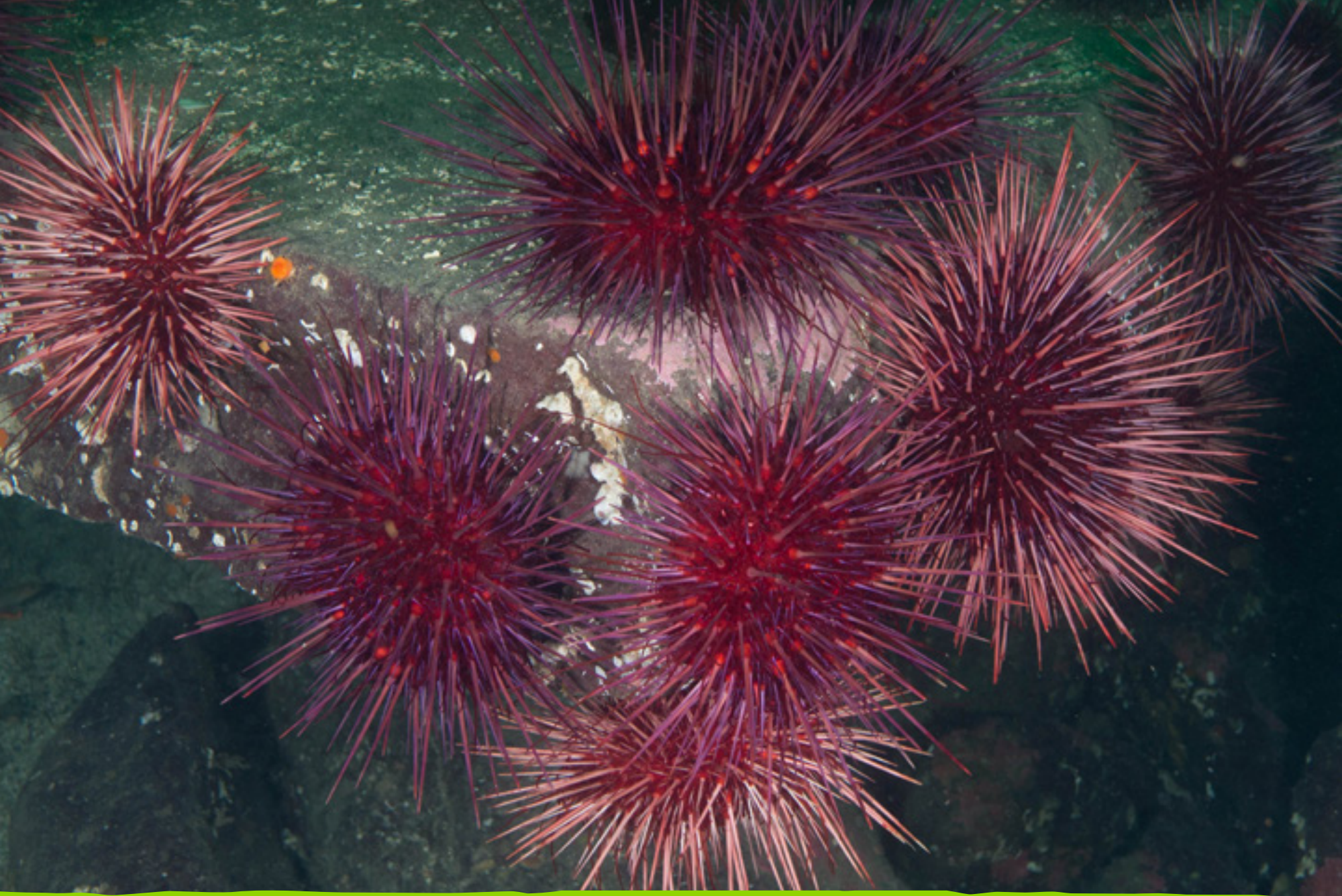
Common Eelgrass *(Zostera marina)*

Habitat and Range Attached to rocks in the mid-to low-intertidal zone in semi-protected coastal areas throughout B.C. Ranges from Alaska to California and Pacific coast of Asia.

Conservation Status Unranked, no status

I resemble thin and shiny, bright green lettuce leaves covering rocks at low tide. I have at least 13 close relatives between Alaska and California and we are hard to tell apart without microscopes. I'm high in protein, iodine, Vitamin C and iron- a nutritious snack for people, crabs, and limpets, but I'm toxic to amphipods. Across my range, people eat me fresh and dried in soups, stews, and sushi, and I'm also used in making cosmetics. I am only two cells thick and although I may look fragile, I can withstand huge changes in temperature, from near freezing to over 25 degrees Celsius. If I look dead and dried out, I'm just waiting for the ocean tides to return and freshen me up. I thrive in areas with high nutrient levels; if I am overly abundant it may be because of pollution from sewage or agricultural runoff.

Sea Lettuce *(Ulva lactuca)*



Habitat and Range Aleutian Islands to Baja California in rocky intertidal areas to 125m depth. Lower intertidal and subtidal, on pilings. Usually in areas of at least moderate wave action.

Conservation Status Unranked, no status

Resembling a pincushion, I live up to my classification as an Echinoderm—a spiny-skinned animal (echino means spiny, derm means skin). My body is made up of plates of calcium carbonate covered with protective, rotating spines and suction cup-like tube feet. My spines and my 5 double-rows of tube feet help me to wedge myself into rock crevices or attach myself to my favourite food: kelp. When I am a small juvenile, I take shelter under the spines of adults to avoid predators, such as sea otters and fish. Humans eat me too.

First Peoples gathered me from the shore or from canoes using a three pronged spear. Once cracked open I can be eaten raw, boiled or roasted. Today there is also a profitable export market for me. In places where my predators are scarce I may become so abundant that I eat up all of the kelp that supports a great diversity of marine life, creating "urchin barrens". If not eaten by a predator, I can live well beyond one hundred years without showing any signs of aging.

Red Sea Urchin *(Strongylocentrotus franciscanus)*

Habitat and Range Alaska to Baja, California

Conservation Status Unranked, no status

My colour ranges from purple to brown or orange, with a network of white spines along my upper surface. Until 2013 I was the most common sea star along the Pacific coast. Then a virus, Sea Star Wasting Disease, decimated all types of sea stars. Thankfully, healthy populations of my kind are beginning to recolonize the rocky shore. I am an important predator of mussels, snails, barnacles, and chitons; I help maintain a balance and diversity of life in the intertidal zone. I use my five arms to give my prey a big, tight squeeze. The suction cup-like tube feet on my underside can pry open even the most tightly closed shells and then I have a feast! You might find my table manners unique: from my mouth (found in the middle, underside of my body), I eject my stomach into my prey, where it digests my food into a milkshake-like slurry. Then I politely pull my stomach back inside my body. I'm covered with tiny, scissor-like appendages that prevent barnacles or other creatures from settling on me. The wart-like circle near the centre of my upper side is called the madreporite and it is where seawater enters and leaves my body through a system of canals, helping me to move and transport nutrients and wastes. Look for me between cracks in rocks at low tide.

Ochre Star *(Pisaster ochraceus)*

Habitat and Range Along the Pacific Northwest coast

Conservation Status Unranked, no status

I am the vacuum cleaner of the sea, sucking up and filtering decaying matter from the ocean bottom using the 20 feeding tentacles that surround my mouth. My soft and squishy, cucumber-shaped body can grow to 50 cm long. Like my relatives the sea stars and sand dollars, I have tiny suction cups called tube feet that run the length of my body, helping me to move along the ocean floor or attach myself to a rock. Watch out predators! If I'm threatened I will shoot out my guts and organs in a sticky net to trap you and escape! And then I will grow them back. Believe it or not, I do all of these amazing things without even having a brain. Coastal First Peoples eat me fried or boiled and also traditionally used me as a heart medicine.

California Sea Cucumber *(Parastichopus californicus)*

Habitat and Range Along the coast in a variety of habitats, including exposed or sheltered sand and mud beaches, shellfish beds, under rocks, and near wharves

Conservation Status Unranked, no status.

Just like an earthworm, my body is divided into many segments. You can call me polychaete (rhymes with parakeet), which is Greek for "many hairs" and refers to the bristles on my leg-like appendages. There are over 10,000 known species of bristleworms in many ocean habitats, from coral reefs to deep sea hydrothermal vents and even inside other invertebrates. Look for me under the sand in the intertidal zone. I help keep your beach healthy by recycling nutrients and turning over sediments. I'm also an important part of the marine food web. I have a head with retractable jaws that I use to capture worms and other invertebrate prey. And we are food to many animals including millions of shorebirds who rely on us to fuel their epic migrations, and the mighty grey whale who scoops us up from the ocean bottom, mouthful by giant mouthful. Celebrate us each July 1st, on International Polychaete Day!

Bristleworm *(Phylum Annelida)*

Habitat and Range Found from Russia to Alaska, and as far south as California. In BC, ranges from the Central Coast along the outer coast of Vancouver Island to Clayoquot Sound but occasionally as far south as the Victoria region. Found in sheltered, shallow waters and near kelp forests, usually within 1-2 kilometers from shore.

Conservation Status BC and Canada: Special Concern **(BLUE LIST)**

I have the thickest fur of any animal—up to 150,000 hairs per cm^2! I spend much of my time lying on my back, grooming myself so that my fur is clean and puffy, trapping air to keep me cozy warm in the cold waters of the North Pacific. My water-repellant and thick fur coat was so valuable that we nearly went extinct due to hunting in the 19^{th} century. By 1911, we became a protected species, but there were less than 2,000 of us remaining in the world and none in BC. In the early 1970s, 89 of us were brought from Alaska to northwestern Vancouver Island where we are making a slow but steady comeback. My favourite foods are crabs, shellfish, and sea urchins, which I crack open using rocks. I sometimes even store my favourite rock-tool in a pouch of loose skin under my arms! I rest and sleep with other otters in a floating group called a raft.

Sea Otter *(Enhydra lutris)*

Habitat and Range Found throughout the worlds' oceans, including along the BC coast. Southern Residents used to be commonly found in the Salish Sea but are now endangered due to lack of food, pollution, and boat impacts.

Conservation Status Populations of Northern Residents, Biggs (Transients), and Offshores: Threatened **(RED LIST)**; Southern Residents: Endangered **(RED LIST)**

I am a toothed whale and the largest member of the dolphin family. I spend my life with my family in a group called a pod, led by our wise grandmothers who help us to survive and teach us how and where to hunt. Like people, we are social creatures, and our populations have distinct cultures, behaviours, and dialects. There are four main types of orcas found in BC: the Northern and Southern Residents who eat chinook salmon around Vancouver Island and Washington State; Biggs (Transients) found from Alaska to Mexico and eat seals and other marine mammals; and Offshores who are rarely seen close to shore and eat sharks! You can tell male and females apart by the height of our dorsal fin: that of males is twice as tall as females—up to 1.8 meters!

Orca / Killer Whale *(Orcinus orca)*

Habitat and Range On sandy and mud beaches in the intertidal zone

Conservation Status Unranked, no status

Have you ever noticed neatly coiled mounds of sand or mud on the beach? That's a sure sign that I'm around. I live in J-shaped burrows under the sand, with my head at the bottom as if I'm doing a headstand. I eat mouthfuls of sand and digest the decaying matter and bacteria. The rest of the sand passes through my digestive system and is deposited on the surface of the beach above my burrow. I play a key role in nutrient cycling and may even be able to help beaches recover from oil pollution. I'm also a tasty treat for fish and birds. I am segmented like an earthworm, but have red, bushy gills on the outside of my body that are visible when I'm in water. I can survive in harsh environments because my blood can hold more than 30 times the oxygen of human blood! Scientists are studying how my blood might help people recover from wounds, organ transplants and diseases.

Pacific Lugworm *(Litaneutria minor)*

Habitat and Range Rocky and gravely beaches throughout BC and from Alaska to Mexico

Conservation Status Unranked, no status

I'm a small crab (up to 5.5 cm wide) often found hiding and keeping moist under rocks and seaweed when the tide is low. Rocks are like the roof of my house and keep me protected from the sun and predators, such as gulls. So if you lift up my "roof" I may scurry away sideways to find a new hiding place. Please remember to put my roof back carefully and gently so I stay safe. I have smooth, hairless legs and I may be purple, greenish or reddish-brown. I often have spots on my big claws, called 'pincers', which I use to defend myself and to eat seaweeds. To tell if I'm a male or female, look on my belly. If you see a lighthouse-shape I'm a male. A rounded beehive-shape means I'm a female. And if you see thousands of tiny poppy seed-like dots under a beehive-shaped abdomen, those are my eggs!

Purple Shore Crab *(Hemigrapsus nudus)*

Habitat and Range Sandy beaches and sheltered bays and lagoons from Alaska to Baja California

Conservation Status Unranked, no status

I am flat and circular like a dollar coin and can grow to more than 70 cm in diameter. Most people recognize me when I'm dead and white-coloured, with a 5-petal pattern on my body. But while I'm alive, I'm covered in tiny, dark-purplish spines and short suction cup-like tube feet, giving me a velvety appearance. Like the sea star and urchin, I'm an Echinoderm (meaning "spiny skin"). My spines and tube feet help me to move and bury myself into the sand. I sometimes sit underwater, half-buried with one edge angled so that the ocean current delivers delicious detritus and plankton to my mouth, located in the middle of my underside.

As an egg I was microscopic and pale orange, covered with a protective jelly coat. After hatching, I drifted with the ocean currents until I received a chemical signal from a bed of adult sand dollars, which caused me to settle and join the colony. I can live 6-13 years if I'm not eaten by a Starry flounder, sea star, snail, or octopus.

Pacific Sand Dollar *(Dendraster excentricus)*

Habitat and Range Ranges from Alaska to Baja California, Mexico in the low intertidal zone and subtidal to 35m

Conservation Status Unranked, no status

I'm no ordinary slug, I'm a nudibranch (sea slug) and a beautiful treasure to be found by divers and explorers of the lowest tides. Nudibranch means 'naked gills', referring to the feathery plumes on my rear end. I'm about 10 cm long and give off a citrusy smell when handled, which warns predators to stay away. But my defenses go beyond my lemony odour. I incorporate toxins and stinging cells from my favourite food- yellow sponges- into my soft body, protecting me from being devoured by a crab or fish. I graze upon sponges from rocks using my cheese grater-like tongue. My colour comes from my food so I blend in perfectly when sitting on my dinner. The 'horns' at the front end of my body are called rhinophores. They're like a super-powered nose, sensing chemical cues in the water that help me to find food, mates, and avoid predators. I also have tiny eyes at the base of my rhinophores that allow me to see light and dark. Each of us is both male and female and we lay pale yellow ribbons containing up to two million eggs.

Sea Lemon *(Peltodoris nobilis)*

Habitat and Range Rocky shores from Alaska to Mexico in middle to low intertidal areas

Conservation Status Unranked, no status

Only those who are most observant will discover me, camouflaged at low tide in crevices and on seaweed-covered rocks. You pronounce my name KY-ton, although some call me a sea cradle or coat-of-mail shell. Like a miniature armadillo of the sea, my eight, jointed shell plates allow me to roll up into a ball to protect myself. I am one of more than 100 species of chiton along the Pacific coast. I'm about 7 cm long and you can tell me apart from other chitons by the short and stiff moss-like hairs along the margin of my body. Like my relatives the snails, I have a muscular foot that suctions my body to rocks and helps me to move. I may seem lifeless, but I'm just resting until nightfall when I creep around my tidepool home to graze upon algae. But I don't go far—studies have shown that I spend my entire life within a 50 cm range. When I die you may find my butterfly-shaped, blue-tinged shell plates.

Mossy Chiton *(Mopalia muscosa)*

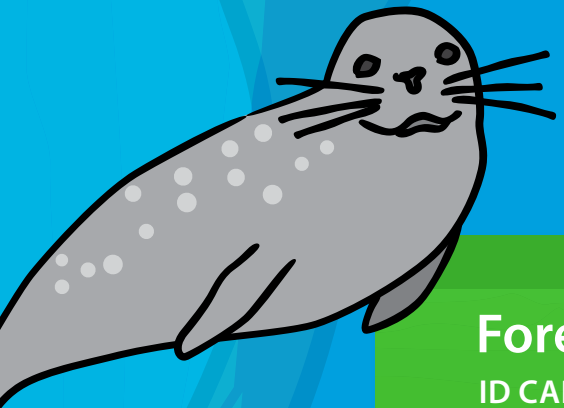
Habitat and Range Rocky intertidal zones and tide pools from Alaska to Baja California

Conservation Status Unranked, no status

You might walk right past me when I'm shriveled up at low tide. But when the tide returns, I transform into flower-like blooms in an undersea garden. I have hundreds of pink-tipped tentacles in several concentric circles around my mouth. Like my jellyfish relatives, my tentacles have stinging cells that paralyze small prey that float by, including plankton and tiny fish. Don't worry, your skin is too tough to feel my tentacles' sting. Instead, I feel sticky and will quickly close up to protect myself if you touch me. The green colour on my body is from photosynthetic algae living in my tissues who provide me with sunscreen and oxygen. My name suits me well: aggregating means joining into a group and I'm often found in high densities. One way I reproduce is by cloning myself. An entire colony may be a single, genetically identical individual! We don't mind being crowded if we're all the same clone. But if a genetically different anemone is too close we'll battle using specialized, poisonous, fighting tentacles called acrorhagi. Look for a small gap of several centimeters between dense clusters of anemones and you may have found a "demilitarized zone" between two clones.

Aggregating Anemone *(Anthopleura elegantissima)*

Ocean Identification Cards



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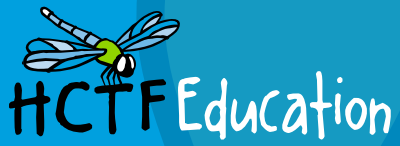

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