

Get to know the Kelp Forest

Who makes their home in the kelp forest?



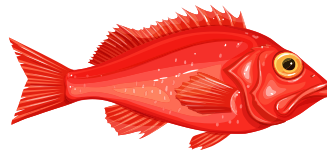
Bull Kelp

Bull kelp is a type of seaweed and is one of many species of kelp that make up the kelp forest. Bull kelp has a holdfast to anchor itself to rocks on the seafloor. They also have a long stalk that grows all the way up towards the surface to access sunlight. Because of this, bull kelp is able to thrive in the coastal waters that are always moving and changing. This being helps provide for the entire community, whether it be as food, as a nursery, as a home or other!



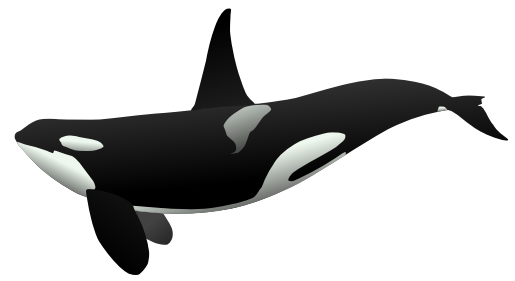
Sea Otter

Sea otters are the only species of otter that are fully aquatic. In the kelp forest, sea otters feed on sea urchins and other animals that like to munch on kelp. With this being helping to maintain balance in the interconnected food web, kelp forests are able to thrive and continue supporting a rich underwater community. This is one of many reasons why sea otters are considered keystone species — the health of sea otters is a good indication of the health of the entire community.



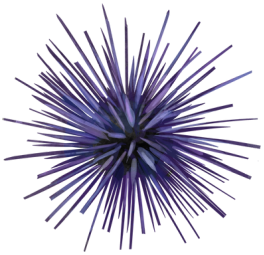
Rockfish

The coastal waters of B.C. are home to over 25 different species of rockfish. They are one of the longest-living fishes, possibly living to 200 years old! For many coastal communities, rockfish are considered beings who bring ancient wisdom. Instead of laying eggs, rockfish give birth to live young. The kelp forest is a critical nursery for them, providing food, safety and more!



Orca

There are two types of orcas that live in these coastal waters: Resident orcas and transient orcas (visitors). Residents mostly eat fish, like salmon, while transients can eat mammals, like sea lions. Orcas are nurturing and live in family groups called pods. These pods can be made up of 6-20 individuals! Their place in the interconnected food web means that they play a key role in maintaining balance in the kelp forest. For many coastal communities, these beings are considered guardians and navigators of the sea!



Urchin

Urchins are spiny, round and diversely colourful. They can be found in all of the earth's oceans! They thrive in the coastal waters of B.C. and have a preference for protected areas of the ocean with lower light. The kelp forest, as well as rocky areas of the ocean, offer them that protection. Additionally, urchins feed on the anchoring holdfasts of kelp and abundant algae in kelp forests. They use their many tiny tube feet to move around, and pass the food directly into their mouths.



Eelgrass

Eelgrass is a nutrient-rich marsh plant that grows underwater in coastal wetland communities called eelgrass meadows. These meadows are one of the world's most productive communities, providing a home, a nursery, food and more to so many beings like herring. Additionally, eelgrass meadows can store lots of carbon from the atmosphere, making it a key player in ensuring climate resiliency. As neighbouring communities, eelgrass meadows and kelp forests are deeply connected. They can share carbon, nutrients, and facilitate safe movement for different marine animals between them.

An interconnected & balanced community

Kelp forests are the rainforests of the sea. Like trees, kelp store huge amounts of carbon dioxide. With carbon pollution skyrocketing around the world, protecting these thriving kelp forests is one of our best defenses in the climate crisis.

Fish and shellfish living in kelp forests are an important food source for orcas, sea lions, seabirds and humans. We can thank kelp forests for helping provide salmon, herring eggs (roe), scallops and mussels to our tables.

Kelp forests act as nurseries by helping keep baby animals safe while they grow up. Some beings you might find in this nursery are herring, sea lions, whales, sea otters and rockfish.

Sea urchins love chowing down on kelp. In fact, out-of-control sea urchin populations can destroy entire kelp forests. Kelp relies on sea otters to eat sea urchins and keep their numbers in check. If it wasn't for sea otters helping balance this ecosystem, countless beings would lose their homes.



Artwork by scientific illustrator Dr. Julius Csotonyi



This next section includes website links for deeper learning. To explore these stories, please visit sierraclub.bc.ca/kelp-worksheet

Learning from local Cultural Voices

"Haida culture considers human communities a part of a complete ecosystem, rather than separate from or superimposed onto the natural world. That's why their traditions are inextricably bound to this place [the kelp forest], to the wildlife communities that call it home, and to the rapidly disappearing food resources the ecosystem provides. For the Haida, kelp forest recovery isn't just about biodiversity conservation. It is also about cultural conservation, about Chiiḡuu Tll iinasdli (nurturing seafood to grow)."

We invite you to [read more about Haida Gwaii's kelp forest restoration work](#).

"These waters, səliłwət, are integral to Tsleil-Waututh Nation's history and culture. In the hənqəminəm language, səliłwətał means People of the Inlet, a reflection of the deep connections between the people and the place."

Read more about the [connections between the Tsleil-Waututh Nation and the kelp forests of the Burrard Inlet](#).

Learn more about the Nation's [inspiring youth who are working to restore these sacred waters](#).

Discussion questions & thoughts to consider

- We are all connected.
- What happens to the kelp forest, happens to us.
- When something goes missing, who is going to take its place?
- How could you be a voice for the kelp forest?
- Every being in this connected community matters.
- What is your responsibility?
- What lessons can you learn from the gifts of the kelp forest?
- What does it look like to be a steward of the water? How could you learn?

Writing activity

Write down any thoughts that bloom
from the discussion questions

Art activity

Draw your own picture of the kelp forest and consider the many pathways of connection in this ocean community



Keep learning with us!

We wanted to express our sincere gratitude to all of the hands, minds and hearts whose publicly shared knowledge, teachings, and contributions were a part of this learning resource.

To explore our resource list and additional learning materials, we invite you to visit sierraclub.bc.ca/kelp-worksheet

