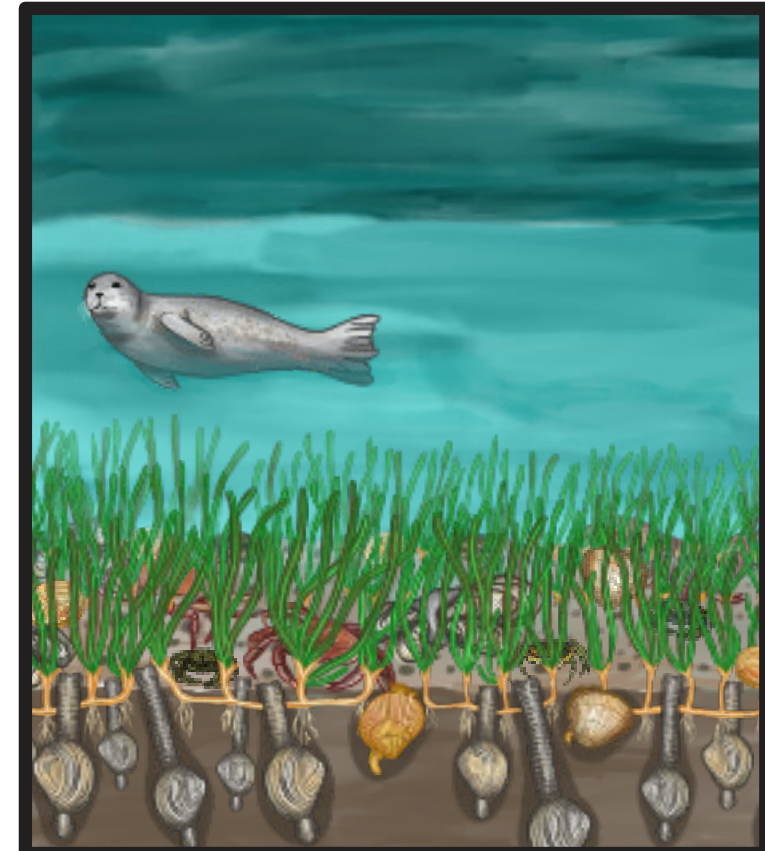


Ku • Kuu and Eelgrass Meadows

Eelgrass meadow with no ku • kuu



Eelgrass meadow after 5 years with ku • kuu



Where ku • kuu dig for clams to eat, they can disturb rhizomes (“roots”) of the eelgrass. This disturbance encourages eelgrass to flower, and increases the genetic diversity and resilience of the eelgrass meadow.¹²

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Gwaii Haanas 'Laanaay 'waadluxan Tilga Kaaganda, Tang.gwan 'Laanaay 'waadluxan Kaaganda, ad Xaaydas Giinaa.ah 'Laana
Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site
Réserve de parc national, réserve d'aire marine nationale de conservation, et site du patrimoine haida
Gwaii Haanas

KU • KUU SEA OTTERS

PAST PRESENT FUTURE

SPRING 2023

Kelp forest after more than 10 years with ku • kuu

Kelp forests will change with ku • kuu's return. After about 10 years with ku • kuu around, we expect kelp forests to be larger, include many layers of kelp and many species of kelp that extend further into deeper waters. This provides habitat and food for herring, salmon, rockfishes, lingcod, black cod, abalone, urchins and other species.^{10, 11}

For more information, updates and questions, visit: <https://www.haidanation.ca/sea-otter-return/>

This project is guided by the Council of the Haida Nation and Canada through the Gwaii Haanas Archipelago Management Board and is supported with funding from the Parks Canada conservation program.

Haawa • Haw'aa Thank you from the Archipelago Management Board to the many knowledge holders, researchers, artists and writers who contributed.

Ku • Kuu designs © Yahl 'Adaas Cori Savard
Kelp and rockfish designs © SqidGang.xaal Shoshannah Greene
Illustrations and graphic design by Kara Sievwright



Ku • Kuu and Kelp Forests

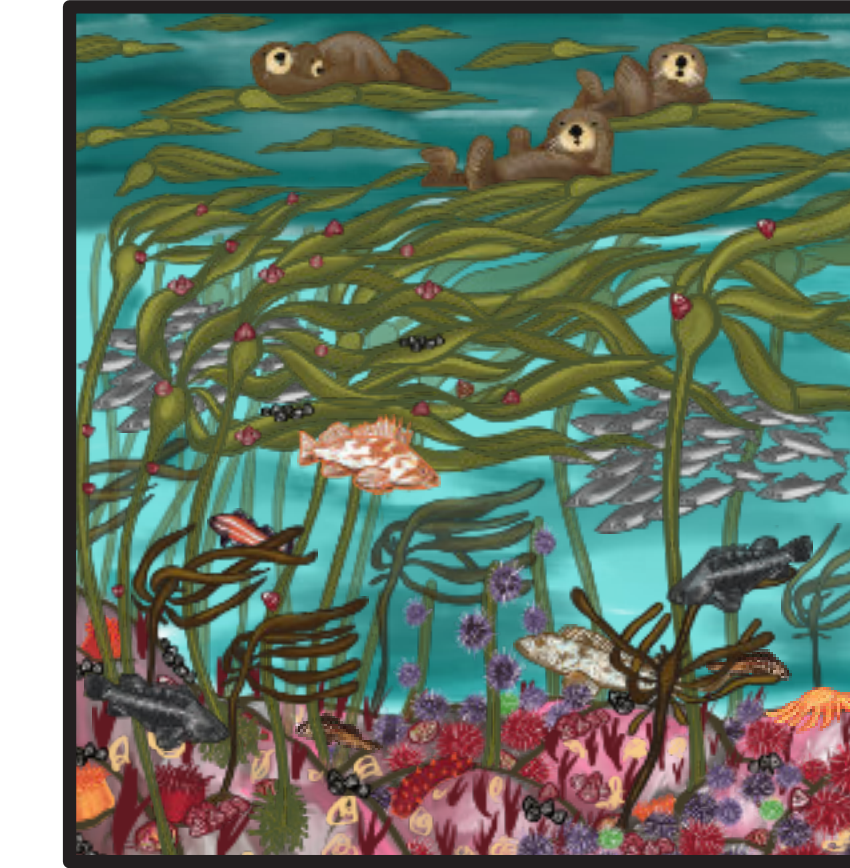
Kelp forest with no ku • kuu



Ku • Kuu Sea otters have naturally returned to Haida Gwaii. A diverse project team is working together to better understand what this means for Haida Gwaii and to consider ways to approach the return of ku • kuu.

Ku • Kuu prefer areas with complex rocky shorelines and many invertebrates for them to eat. The coastline of Haida Gwaii is a patchwork of good to poor ku • kuu habitat. We can map areas where we expect ku • kuu to establish using our knowledge of the nearshore environment and their food and habitat preferences. Areas of good habitat will look like a mosaic around Haida Gwaii. We can expect ku • kuu to establish themselves in a mosaic pattern as well. Kelp forests also tend to be naturally patchy. There is large variation year to year in how much kelp grows depending on ocean conditions.⁵

Kelp forest after 5 years of ku • kuu



Abalone and urchins tend to stay hidden in rock crevices when ku • kuu are around. They eat drift kelp and spend little time in the open searching for food. Being well-fed, urchins put energy into reproduction resulting in richer and sweeter roe that is better for eating.⁹

Kelp forests provide food, shelter and protection to many species. Kelp forests also turn sunlight energy into living material, slow water currents and protect shorelines.

In the future, we can expect the coast to be a dynamic patchwork of kelp forests and other habitats. Imagine a patchwork quilt where the exact spot of each patch can shift from year to year, and the size of each patch swells and recedes.

A Timeline of ku • kuu on Haida Gwaii

The island was once all covered with grass, they say. Woodpecker was travelling upon it. He had no feathers. And in the middle of the islands stood a large tree without any bark, on which he began hammering.¹

... Raven told them to make a town behind the place where they then were. And he told many to go into the mountain. And he told many to go to this island. Then he told them this island was too small for them ... He was not pleased with this and took part of the animals to the other side. Then he told only the Black-Bear, Marten and Land-Otter to be here. And the strip of ocean between them was narrow. The tide flowed back and forth in this, and he pushed the island apart with his feet. At that time there was no tree to be seen. And after they had lived for a while in the mountain, the weather became bad.⁴



Traditional marine management by Haidas and other coastal First Nations controlled ku • kuu populations and distribution, and protected important marine resources like food gathering areas. Traditional ku • kuu hunting required much skill and was only done by those with proprietary rights to do so in certain areas.⁶

30,000–15,000 years ago

The Ice Age: glaciers cover much of Haida Gwaii and what is currently called North America

12,000 years ago

Archaeological sites around Haida Gwaii show that both Haida and ku • kuu lived on Haida Gwaii.²

11,000 years ago

- Sea level higher than today.²
- Archaeological evidence of ancient Haida villages in present day upland areas that were once on the coast.²
- Sea otter bones at midden sites around Haida Gwaii show that Haida hunted ku • kuu.²

5500 years ago

- First red cedar on Haida Gwaii.²
- Widespread traditional ku • kuu hunting along the coast.⁶
- Large mussel shells in midden remains elsewhere in BC suggest First Nations hunting kept ku • kuu populations low in some areas.⁷

2000–900 years ago

- Both fish and invertebrate shellfish harvested by Haidas.⁸
- Haidas traded ku • kuu furs and many other resources with mainland Nations.^{5,6}
- Presence of people, hunting and other activities kept ku • kuu away from important food harvesting areas.⁶
- Maritime resource management and hunting by Haidas controlled ku • kuu populations in localized areas.^{5,6}
- Abundant herring, salmon, rockfish, greenlings, halibut, cod, dogfish, gunnels and other fish caught.⁸
- Invertebrates including barnacles, mussels, clams, snails, sea urchins, cockles, rock scallops, limpets, black chiton, red turban snails and abalone harvested.⁸

15,000–11,000 years ago

A time of changing sea levels

11,000–200 years ago

Both ku • kuu and Haida live on and around Haida Gwaii

Future

... in course of time the climate not only grew colder but ice began to form, and snow deeply covered first the hill tops then afterward, the lowlands. Finally the cold became so intense that they had to move farther south. This they did led by a woman whose name was [Kalga Jaad]. They left for a warmer home where they lived for many generations. Afterward when the climate again got warmer, they returned.^{2,3}



The maritime fur trade was a time of boom and bust. Many people were driven by the promise of increased material wealth and a few became quite wealthy. Hunting ku • kuu increased dramatically and traditional hunting practices likely changed to meet the demand of the new global fur trade. Enormous changes in the economy, culture and ecology of Haida Gwaii and the BC coast occurred at this time.

1800–2022

1774

First recorded contact between Haida and Europeans. Haida traded furs for cloth, knives and abalone from Spanish.⁵

1787–1830

Sharp increase in ku • kuu hunting with the maritime fur trade.⁵

1787

Haida trade 1821 ku • kuu pelts with British Trading vessel *Queen Charlotte*.⁵

1800s

- Sea otters become ecologically extinct in local waters.
- Guudangee • Guuding.ngaay *red sea urchin* and other shellfish prey of ku • kuu start to increase.
- Kelp forests and coastal biodiversity begin to decline.

1900s

- Guudangee • Guuding.ngaay and other shellfish dramatically increase.
- Kelp forests are reduced in size and depth, impacting rockfish, lingcod, herring, salmon and coastal biodiversity.

Late 1960s–early 1970s

Ku • Kuu re-introduced from the Aleutian Islands, Alaska, to many places along the west coast of North America, including the west coast of Vancouver Island near Kyuquot.

2000–2010s

Individual male ku • kuu sometimes spotted around Haida Gwaii.

Mid 2010s

First sightings of ku • kuu moms and pups in Haida Gwaii waters.

2022–23 and beyond

Communities explore the expected changes, gains and losses, in future scenarios for how we can live with ku • kuu as neighbours on Haida Gwaii.

2019

- 13 ku • kuu observed including one mom and her pup during a collaborative Haida Nation–Canada survey in Gwaii Haanas.
- The Council of the Haida Nation and Gwaii Haanas Archipelago Management Board confirm that ku • kuu have re-established around Haida Gwaii.

