

WELCOME TO SCIENCE LITERACY WEEK AT OCEAN WISE

Live-streaming from the Vancouver Aquarium.

Get ready- open this website in your browser
<https://education.ocean.org/mobile/resources/25087>

Science
Literacy
Week



ocean wise®

Conclusion of Microfibers Activity AND Dive into Howe Sound

Our fourth live-stream to celebrate Science Literacy Week
Get ready- open this website in your browser
<https://education.ocean.org/mobile/resources/25087>

Join us tomorrow 10 – 11 for our final event: Biodiversity and
Stewardship – Inextricably Linked

**Science
Literacy
Week**



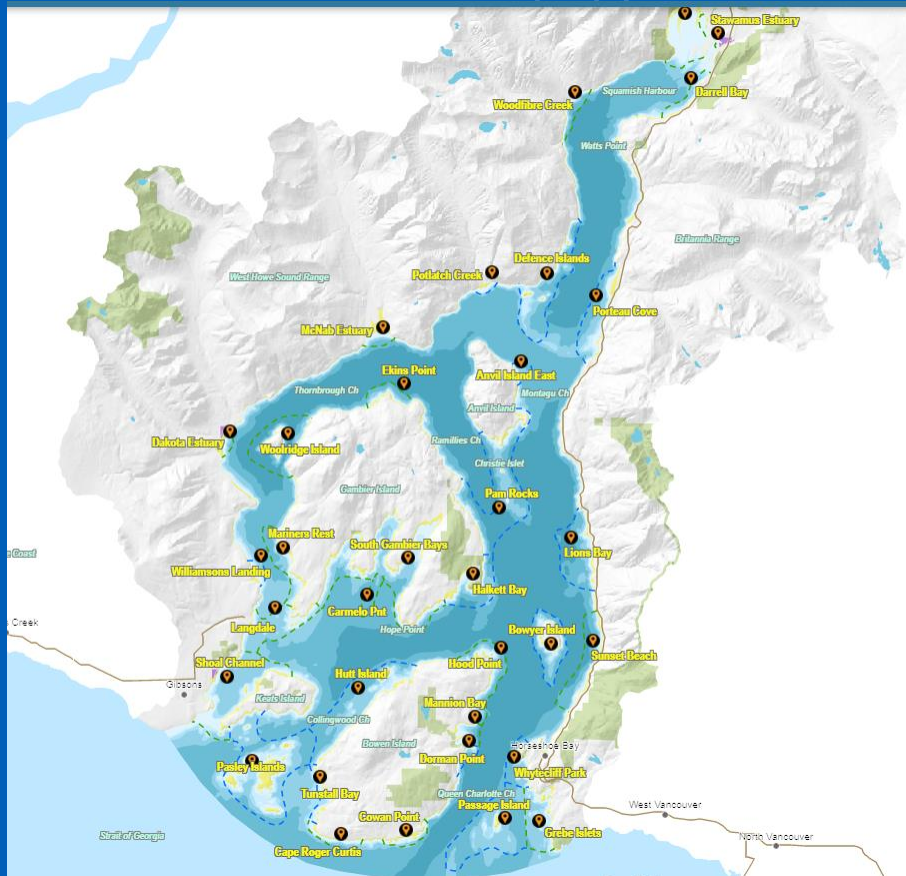
ocean wise

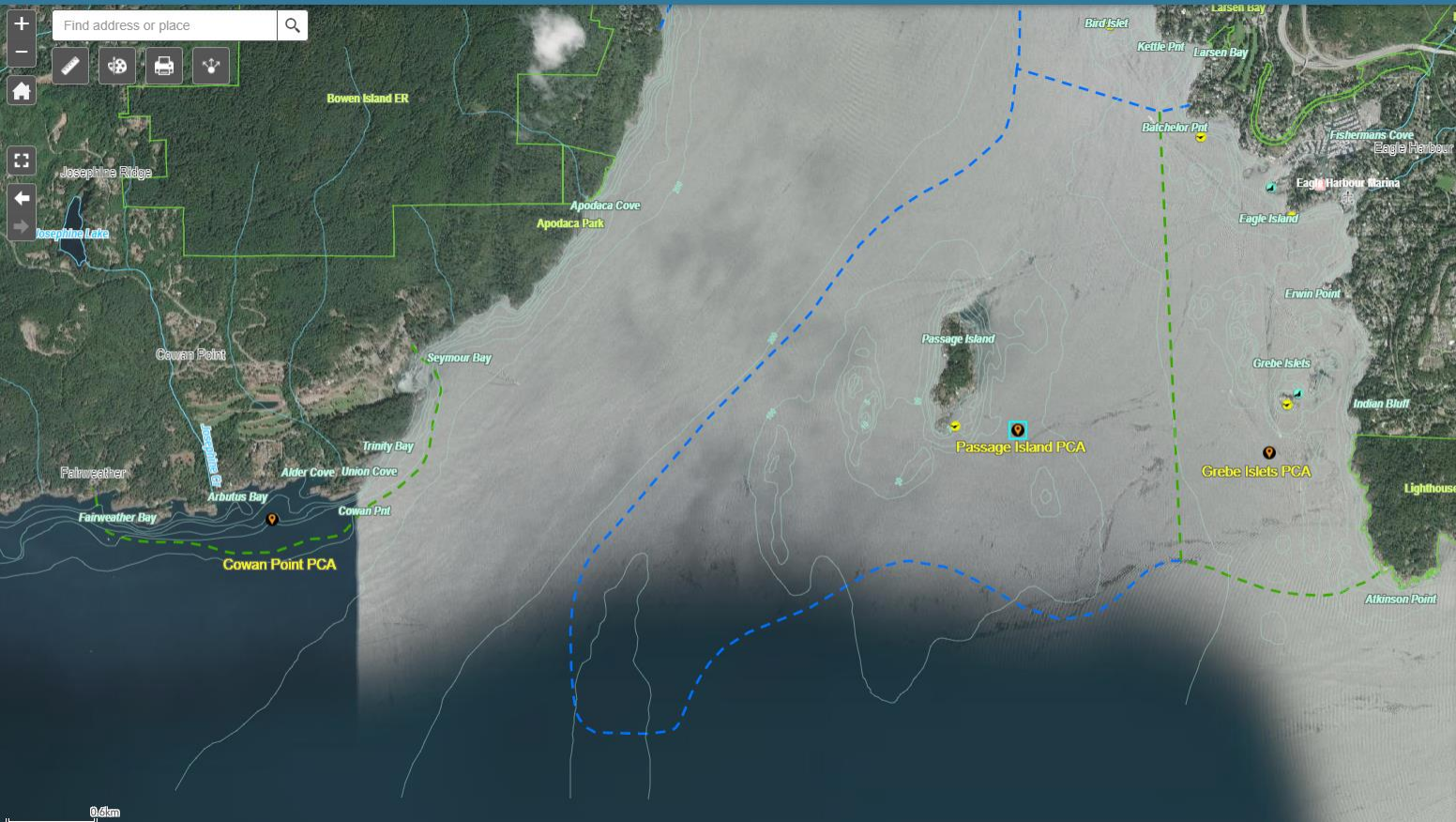
**Science
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Week**

Dive into Howe Sound



<https://howesoundconservation.ca/mapapp/>






Feature detail (1 of 1) [Clear](#)

[Zoom to](#)

Passage Island

Priority Conservation Area



(Video credit: Bob Turner)

Passage Island, three kilometers offshore from West Vancouver's Lighthouse Park at the entrance to At'ka7sem/Howe Sound, is an incredible biodiversity hot spot. It's home to the four Queen Charlotte Channel sponge reefs – one-third of the known reefs in the sound – and three more potential reefs are under investigation. The reefs are created over generations: dying glass sponges leave their fragile skeletons behind for the next generation to grow on. Some are more than 9,000 years old!

Glass sponges alter the seabed and support rich biological communities, similar to coral reefs in the tropics. Passage Island reefs provide excellent habitat and refuge from predators for young rockfish and invertebrates like prawns. At the surface, birds like Barrow's goldeneye and marbled murrelet bob on the waves between dives to feed in the rich waters. Learn more about the glass sponge reefs [here](#).

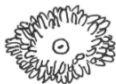
The island is also inhabited by a small, tight-knit human community of mostly summer cottages, but some residents live there year-round. Because it's not serviced with municipal power or water, residents have innovatively developed solar power and cisterns.

DIVE INTO HOWE SOUND



SNAKELock ANEMONE
Long tentacles covered in nematocytes to sting prey
Attached to rocks

STUBBY ROSE ANEMONE
Short tentacles covered in nematocytes to sting prey
Buries itself in sand so only tentacles show



TUBE DWELLING ANEMONE
Translucent tentacles covered in nematocytes to sting prey
Lives inside tubes they grow themselves

HYDRIOD
Covered in nematocytes to sting their prey
Often found in colonies



MOON JELLY
Translucent tentacles for stinging prey
Lives throughout the water column

GOOSE BERRY

Two long tentacles with colloblasts- a sticky cells to catch prey
Lives throughout the water column



DIVE INTO HOWE SOUND



PLUMOSE ANEMONE
Feather like tentacles capture prey
Attaches to hard substrate

TAILED JELLY

Stinging cells to capture prey
Lives throughout the water column



BUTTERFLY CRAB
Pinchers rip and crush food items
Rocky shorelines

SHARPNOSE HELP CRAB

Pinchers rip and crush food items
Rocky areas near seaweed



ISOPOD
Four sets of jaws
Many different species each adapted to own habitat
Colour closely matches that of environment

ORANGE HERMIT CRAB

Large pincher for crushing small for ripping
Bedrock or rocky areas with high current



DIVE INTO HOWE SOUND



TOP SNAIL
Radula to graze on kelp and detritus
Benthic

GIANT PACIFIC OCTOPUS

Strong beak to crush food
Primarily benthic, but can swim in the water column



LIMPET
Uses radula to scrape algae from rocks
Lives on rocky substrate

TUNICATE

Filter feeder
Benthic



BRITTLE STAR
Feeds on plankton and detritus caught in its arms
Burrows within holes in rocks

GIANT SEA CUCUMBER

Large feeding tree to capture detritus
Sandy, Rocky, or muddy bottoms



DIVE INTO HOWE SOUND



TOP SNAIL

Radula to graze on kelp and detritus
Benthic

GIANT PACIFIC OCTOPUS

Strong beak to crush food
Primarily benthic, but can swim in the water column



LIMPET

Uses radula to scrape algae from rocks
Lives on rocky substrate

TUNICATE

Fiber feeder
Benthic



BRITTLE STAR

Feeds on plankton and detritus caught in its arms
Burrows within holes in rocks

GIANT SEA CUCUMBER

Large feeding tree to capture detritus
Sandy, rocky, or muddy bottoms



FOR MORE RESOURCES
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DIVE INTO HOWE SOUND



BLACK EYED GOBY

Eat small crustaceans and molluscs
Border between rocky reefs and sand patches

ROCKFISH

Eats small crustaceans, fish and plankton
Rocky reefs, glass sponge reefs



SOLE

Eats worms, molluscs, crustaceans and echinoderms
Sandy bottoms

GRUNT SCULPIN

Eats copepods amphipods and zooplankton
Hides in giant acorn barnacles



LINGCOD

Eat anything they can fit in their mouth
Rocky areas

WOLF EEL

Eat primarily sea urchins
Den in small spaces under rocks



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education.ocean.org

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FOR MORE RESOURCES
education.ocean.org







**Science
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Microfibers – Conclusion of Activity



The Ocean Wise Research Plastic Lab Team

Dr. Peter
Ross



A. Posaka



S. Wong

The Washing Machine Lab & M Watkins



S. Chastain



K. Vassilenko



S. Patankar



A. Parizi



What can you do?

- Something as simple as trying to wash your clothes less - or spot clean clothes when you spill on them
- Have your family install a “Lint LUV-R” or similar product – this product captures fibers from laundry water, which you can then put in the garbage
- Think about the types of fibers that make up your clothes, maybe think about buying more natural fibers if you can.
- Carry a set of reusable cutlery with you, reusable water bottle and coffee/tea mug and a reusable straw too! Single use plastics – the plastics we use once and throw away are some of the worst offenders in the environment
- Make sure that wherever you go, you are NOT being a part of the problem. Make sure you don’t litter or better yet, that you help by picking up litter and plastics before they end up in our rivers, streams and ocean.



Science Literacy With Ocean Wise Week

Join us tomorrow for our final event:

- **Sept 25** – Biodiversity and Stewardship Links with Ocean Wise and Musqueam author and artist Melaney Gleeson Lyall

Stay Connected

Visit [Education.ocean.org](https://www.education.ocean.org) for activities and discussion boards.

Find our next program at [ocean.org/learnonline](https://www.ocean.org/learnonline) and follow us on Twitter [@OceanWiseEdu](https://twitter.com/OceanWiseEdu)

An important request

Ocean Wise Conservation Association and the Vancouver Aquarium are non-profit organizations on a mission to protect and restore the world's oceans. **Because of COVID-19, we have lost almost all our revenue, putting the future of the Vancouver Aquarium, as well as Ocean Wise research, education and conservation at risk.** If you've enjoyed today's program, please consider supporting the Vancouver Aquarium and Ocean Wise by making a donation at www.VanAqua/SaveVA/community.

**THANK YOU FOR YOUR PATIENCE
WE ARE STILL LIVE.**

**We will resume the program as soon as we have
resolved the technical challenge.**

Stay Connected

Visit **Education.ocean.org** for activities and discussion boards.

Find our next program at **ocean.org/learnonline** and follow us on Twitter **@OceanWiseEdu**

Ocean Wise Conservation Association is a non-profit organization on a mission to protect and restore the world's oceans. If you've enjoyed today's program, please consider supporting the delivery of Ocean Wise Education's fun and educational content by making a donation at **Ocean.org/donate**.

Our Mission

TO EMPOWER THE GLOBAL COMMUNITY TO
BECOME OCEAN WISE BY INCREASING ITS
UNDERSTANDING, WONDER AND
APPRECIATION FOR OUR OCEANS.

THE FOLLOWING SLIDE FORMATS CAN
BE EDITED AND USED WHERE
APPLICABLE

EDUCATION INSERTS.

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Thank you.

