

Denman Island Shoreline

eelgrass habitats

What is eelgrass?

Eelgrass, *Zostera marina*, is a true flowering plant - not a seaweed - and needs clean water and ample light. Eelgrass meadows generate food and provide habitat for an astonishing diversity of marine life.

Where are eelgrass habitats located?

Eelgrass grows along protected shorelines of bays, inlets and estuaries of Denman Island. Look for the long emerald green blades, just within metres of the shoreline, draping the ocean surface at lower tides. Eelgrass grows close to the low tide line to depths of 15-20 metres and blades can be up to 2 metres long.

How are eelgrass habitats vulnerable?

Shading and physical disturbance damage eelgrass. Excessive nutrients, polluted water and rising ocean temperatures are detrimental to eelgrass health.

How Can We Protect Eelgrass Habitats?

There are many steps you can take to make sure that eelgrass habitat remains vital in supporting a healthy marine ecosystem.

- Avoid use of vehicles and machinery on island beaches.
- Avoid placing structures on or over eelgrass beds.
- Anchor outside eelgrass beds and use mooring cans and public docks.
- Use oil-absorbing bilge pads and pumpout vessel sewage.
- Manage upland water quality.

Why are eelgrass habitats important?

Eelgrass beds support hundreds of marine species, including crab, salmon and rockfish, which use this habitat as a nursery and rearing ground. In spring, eelgrass blades are heavy with herring eggs. Other marine animals such as the Bay pipefish and eelgrass nudibranch are unique to eelgrass beds. Canada and Brandt geese consume eelgrass blades while the Great Blue Heron stalks prey hiding within the meadow. Eelgrass habitat supports numerous BC fisheries.

Decomposing eelgrass and seaweeds are an ocean fertilizer, recycling nutrients to refuel marine food webs from the intertidal zone to the deep sea. Eelgrass protects shorelines by buffering waves and stabilizing sea floor sediments. Marine vegetation like eelgrass is an efficient carbon sink protecting our entire planet.

eelgrass bed

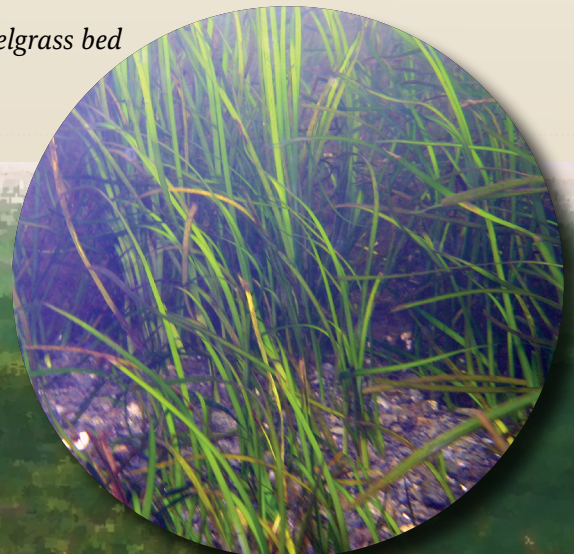


photo credit: Tom Lightfoot



Denman Island Shoreline

forage fish habitat

What are forage fish?

Forage fish are schooling fish that include Pacific herring, anchovies, surf smelts and Pacific sand lance. They are an essential component of marine ecosystems as they are eaten by bigger fish. Forage fish depend on foreshore areas for food and shelter and many forage fish species spawn on local beaches with suitable habitat.



Surf smelt

Pacific sand lance

Why are forage fish habitats important?

Local forage fish are an important part of the diet of coastal cutthroat trout, and provide up to 50% of the diet of Chinook salmon. Chinook salmon just happen to be the favourite food for our beloved Southern Resident Orca whales. Research from the Centre for Whale Research in Washington State warns the Southern Resident orca whales are starving and on the brink of extinction. We need healthy local beaches if we are to have healthy killer whales.

Where are forage fish located?

Surf smelt and Pacific sand lance spawn extensively on sand and small pebble beaches around Denman Island. They lay tiny eggs (approximately 1 mm) on the upper beach near high tide levels, only a few metres below the log line.

More Information?

www.islandstrust.bc.ca

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How are forage fish habitats vulnerable?

People can inadvertently damage spawning habitat when they build breakwaters, seawalls or docks. Spawning habitat can also be negatively affected by shellfish aquaculture where the use of vehicles and machinery, or small but chronic oil spills from boats and vehicles, impact fragile forage fish eggs. Even digging and disturbance by pets can negatively disturb forage fish eggs.

How can we protect forage fish habitats?

There are many steps you can take to make sure those eggs survive to support a healthy marine food web.

- Avoid use of vehicles and machinery on island beaches.
- Use oil-absorbing bilge pads and pumpout vessel sewage.
- Retain plants and trees near the shore.
- Maintain and operate boats responsibly.
- Develop land carefully and avoid the use of hard retaining walls at the shoreline.

Useful Links:

DFO 'Pathways to Effects':

www.dfo-mpo.gc.ca/pnw-ppe/pathways-sequences/index-eng.html

Greenshores:

www.stewardshipcentrebc.ca/Green_shores/

Islands Trust Fund 'The Heron':

www.islandstrustfund.bc.ca/news/the-heron-news-letter.aspx

