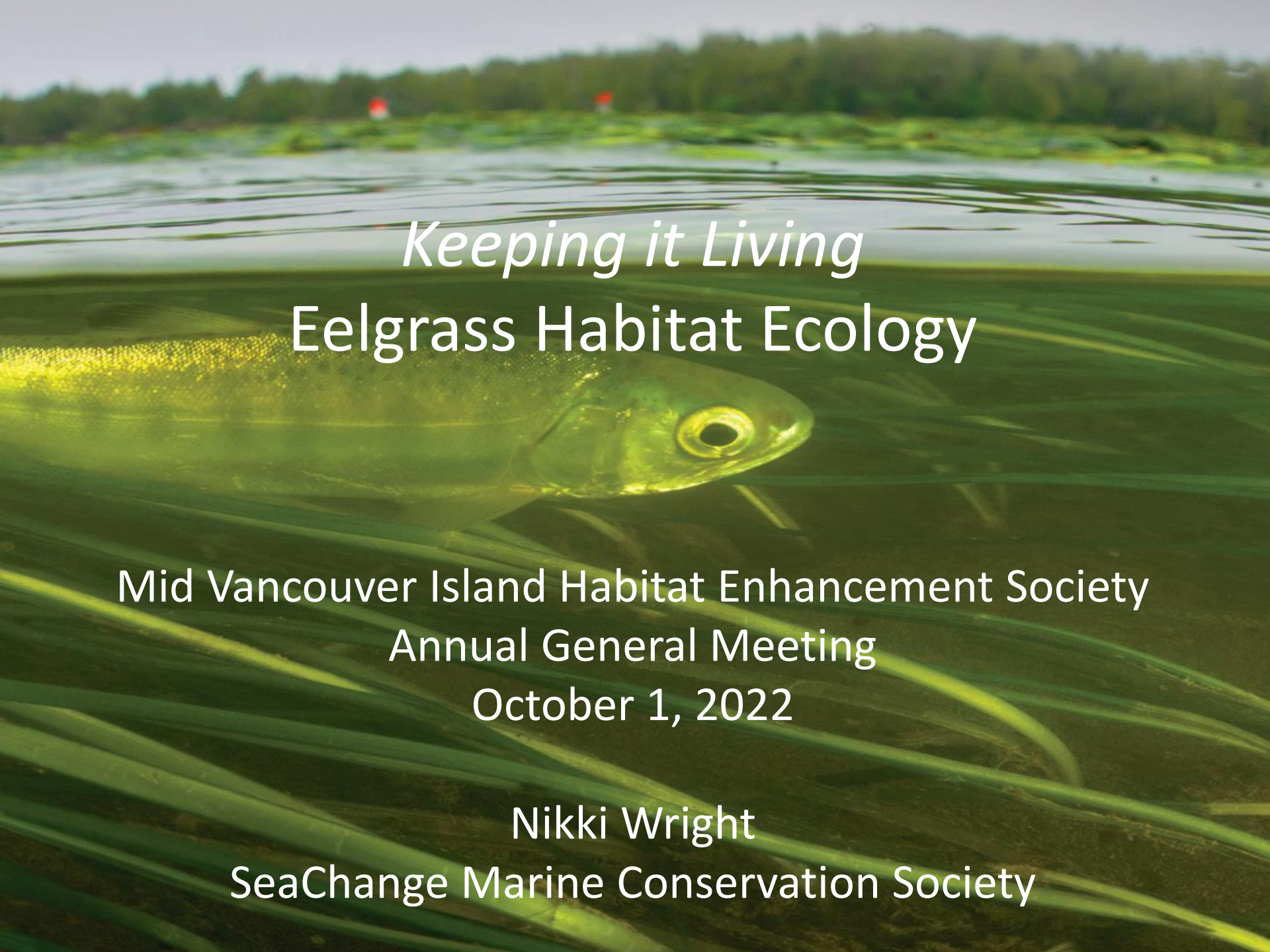


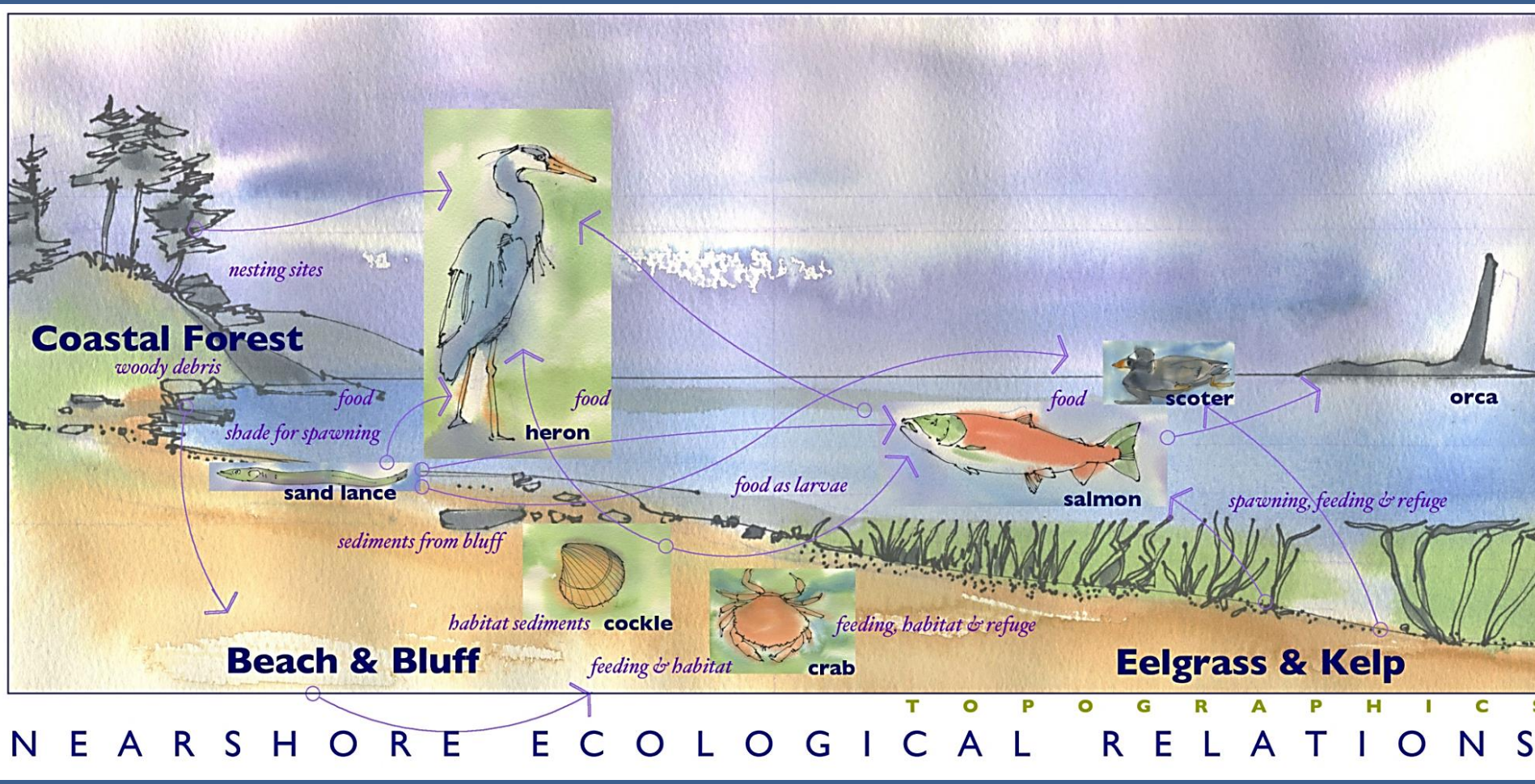
Keeping it Living
Eelgrass Habitat Ecology

Mid Vancouver Island Habitat Enhancement Society
Annual General Meeting
October 1, 2022

Nikki Wright
SeaChange Marine Conservation Society

Trish Farrell

Living Systems



Natural Marine Protected Areas

Marine Nearshore Systems

Photo: Ramona de Graff

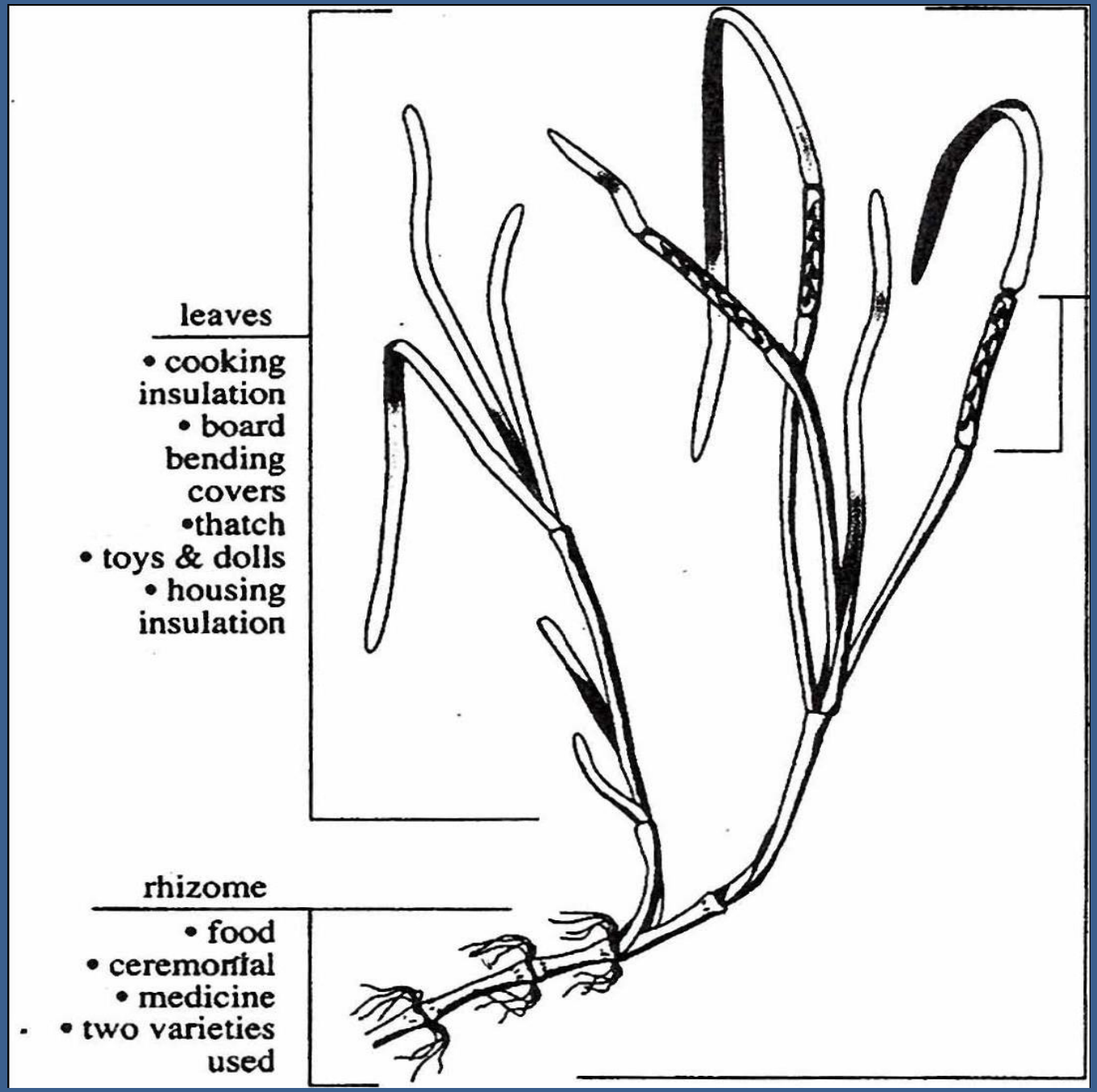
Backshore vegetation
Filters pollutants
Provides shade for forage fish
Stabilizes soils

Drift logs provide stability
Habitat for intertidal life
Nutrients

Sand provides
forage fish spawning

Eelgrass provides oxygen
Stores carbon
Slows erosion

Provides habitat for salmon and other marine life

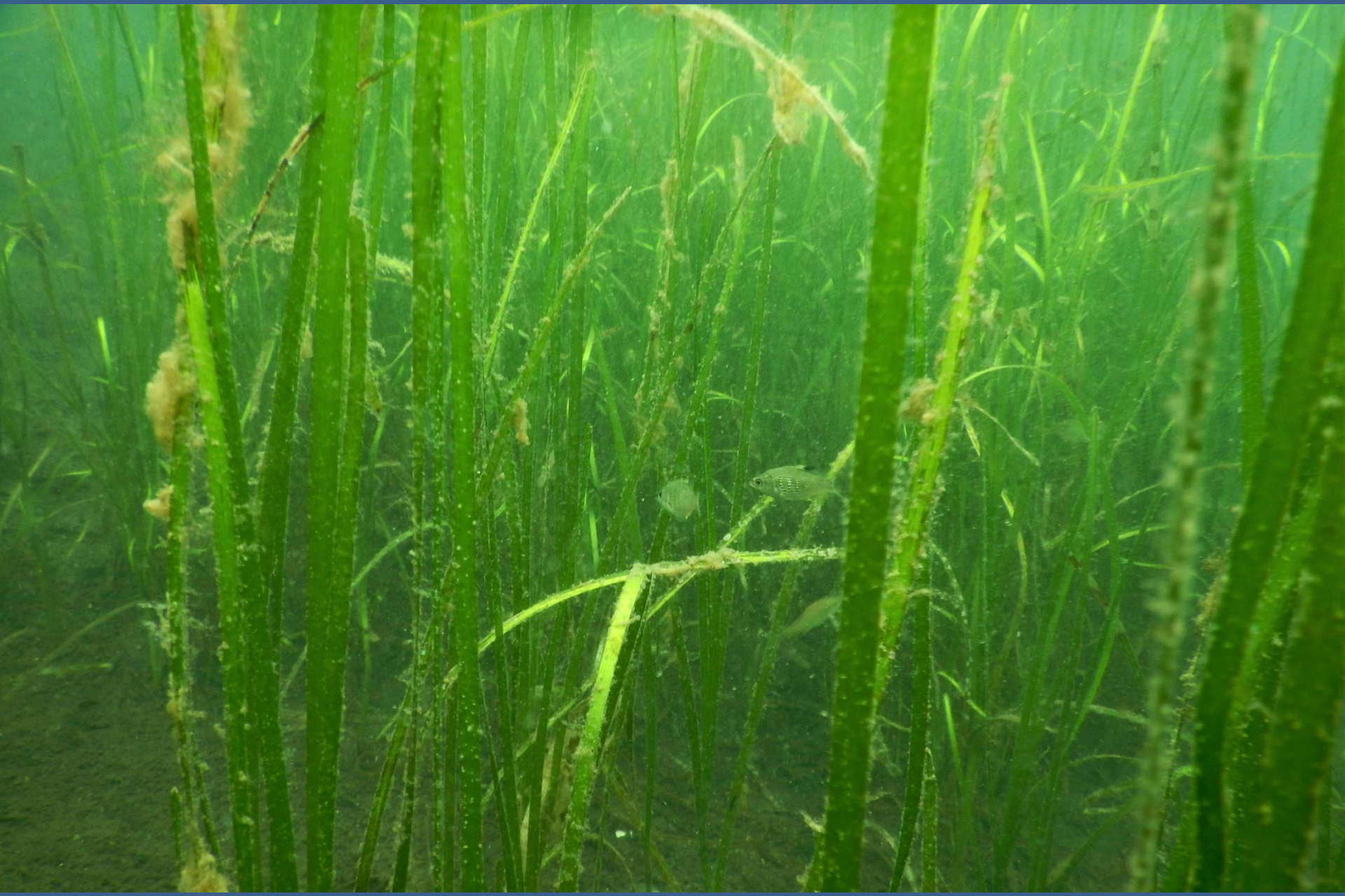


Seeds

Food
Medicine
Pottery sealant

Whole Plant

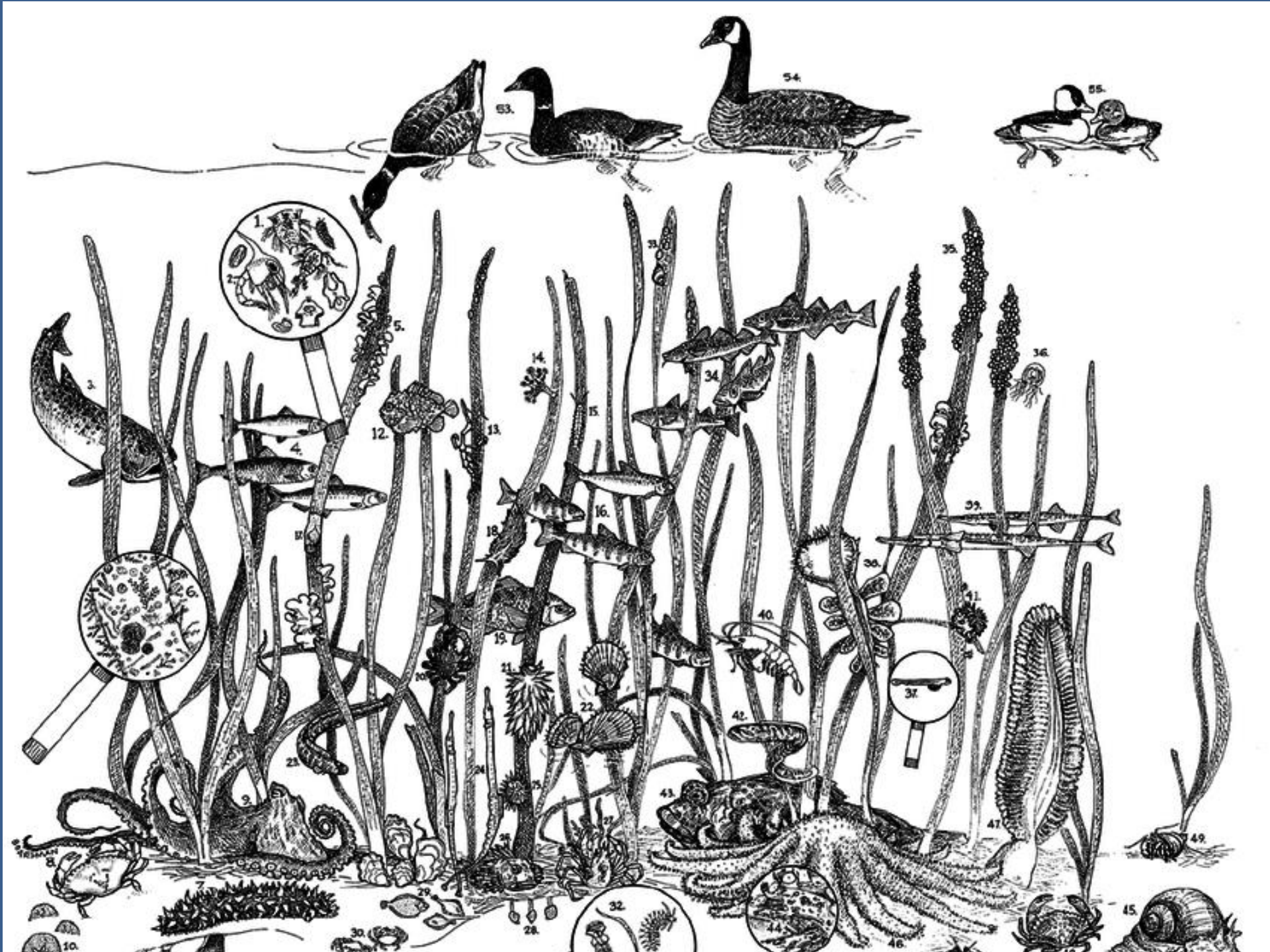
Cooking insulation
Collection of herring eggs
Gathering site indicator



Eelgrass Meadows are Salmon Highways

Eelgrass meadows serve as salmon highways by:

- Functioning as nurseries
- Providing food: 80% of commercially important fish species use eelgrass during some stage of their life cycle
- Serving as refugia from predators and waves



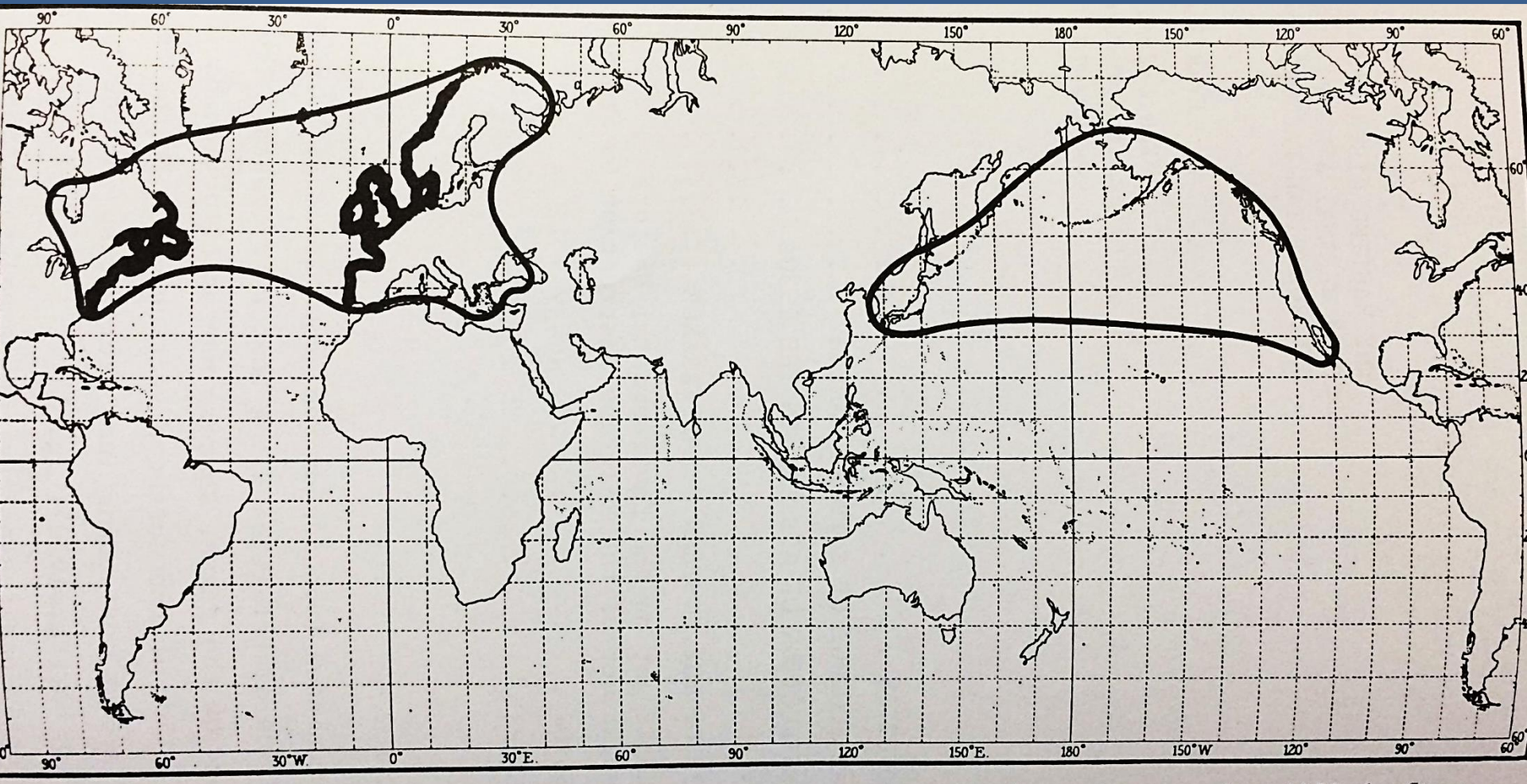


FIG. 1. World distribution of the eelgrass (*Zostera marina*), redrawn and modified after Setchell (1935, Fig. 10). The coastal areas marked with a black signature indicate the areas with the mass destruction in the 1930s. After Rasmussen (1973).

Figure 1. *Zostera japonica* sheath.

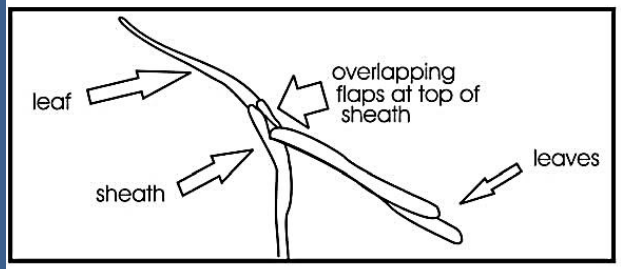


Figure 2. Schematic drawing of Figure 1.

Figure 3. *Zostera marina* sheath.

Ecotype: *Z.m. typica*

- *typica:* narrow leaf size; 2 to 5mm width
- Primarily intertidal
- Small seasonal variation
- Low current tolerance

Ecotype: *Z.m. phillipsi*

- *phillipsi:* intermediate leaf size: 4 to15mm width
- 0 to - 4 depth range
- Large seasonal variation; plant length reduced in winter
- Moderate current tolerance

Ecotype: *Z.m. latifolia*

- *latifolia:* large leaf size: 12 to 20mm width
- -0.5 to -10 depth range
- Seasonal minimal variation
- Strongest current tolerance

An Opportunity for Citizen Science

PARKSVILLE - QUALICUM BEACH
EELGRASS AND SHORELINE HARDENING

MVIHES
Mid Vancouver Island Habitat Enhancement Society
www.mvihes.bc.ca

This map was created for MVIHES (Mid Vancouver Island Habitat Enhancement Society) using a composite of different datasets existing as of March 04, 2009

The Mapping Centre, Project Watershed, and other partners are not responsible for damages resulting from any errors, omissions or deletions.

Sources:
The Mapping Centre (Project Watershed Society) 2009
Regional District of Nanaimo
TRIM 2007
Mid Vancouver Island Habitat Enhancement Society

Map created May 25, 2009
by The Mapping Centre
Comox Valley Project Watershed Society
Box 3007, Courtenay, BC, V9N 5N3
(250) 792 - 2873
maps. projectwatershed.bc.ca

Scale = 1: 45,500
Universal Transverse Mercator
Zone 10, NAD 83

0 0.5 1 2 3 Kilometers

Threats


2018.03.18 14:08

Side scan image of log under the seabed

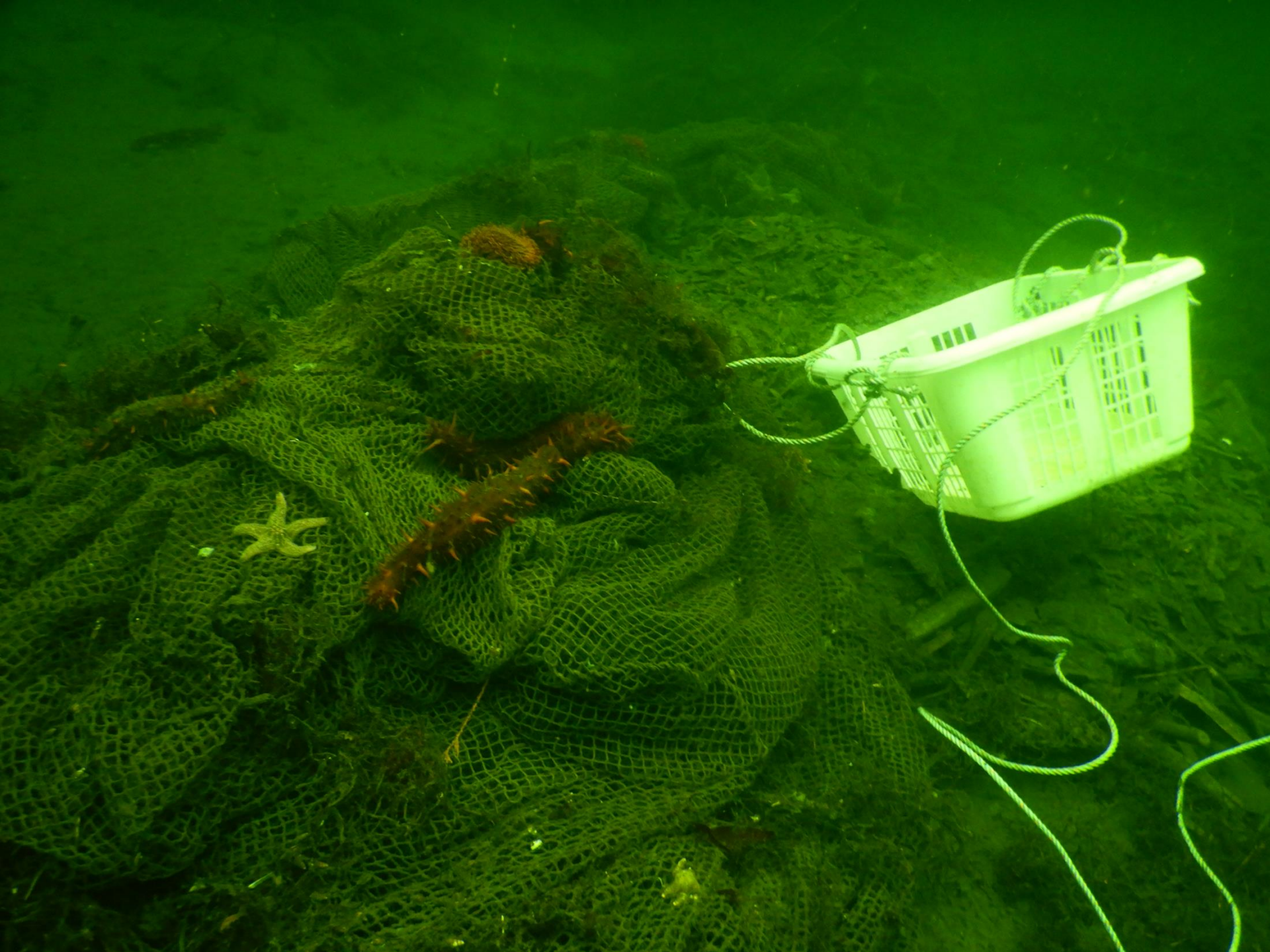
Salmon highway interruptions

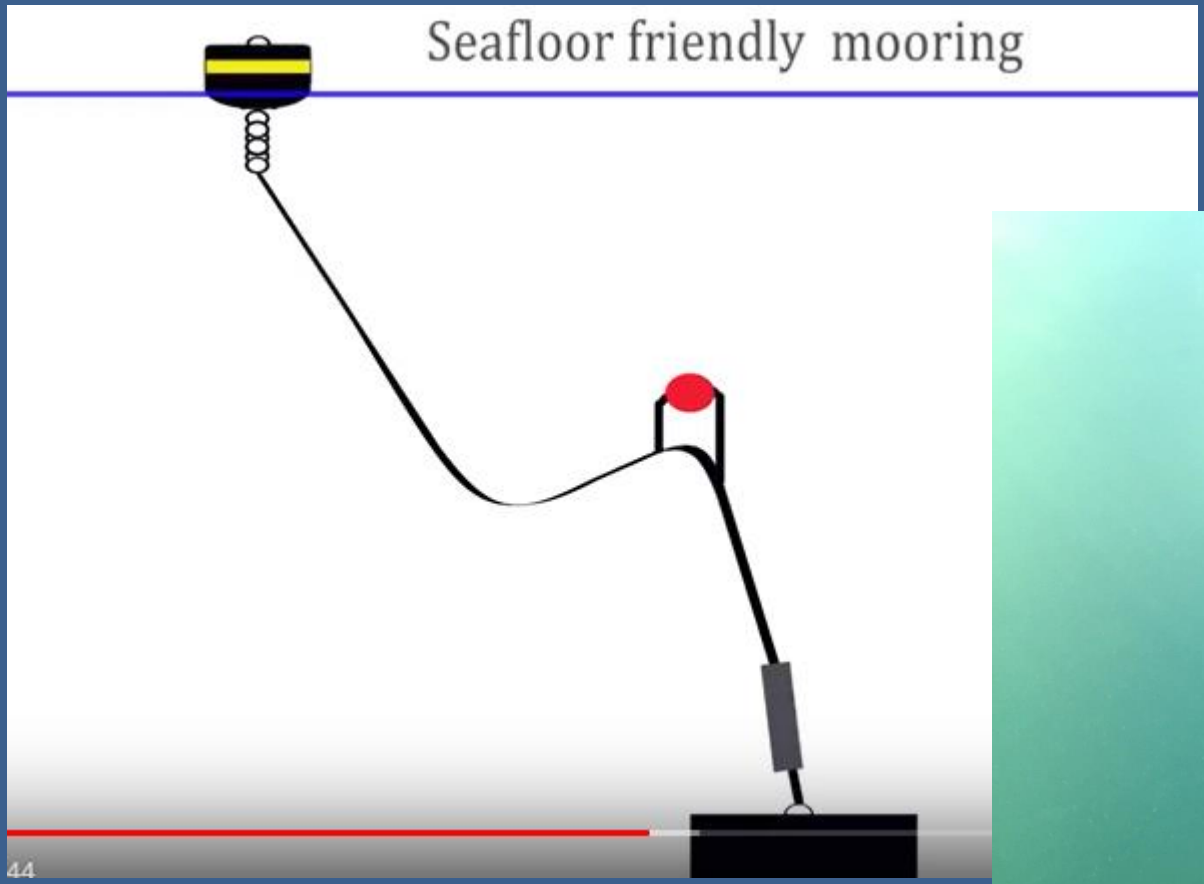
Shoreline modifications do more than slow down erosion (temporarily)…

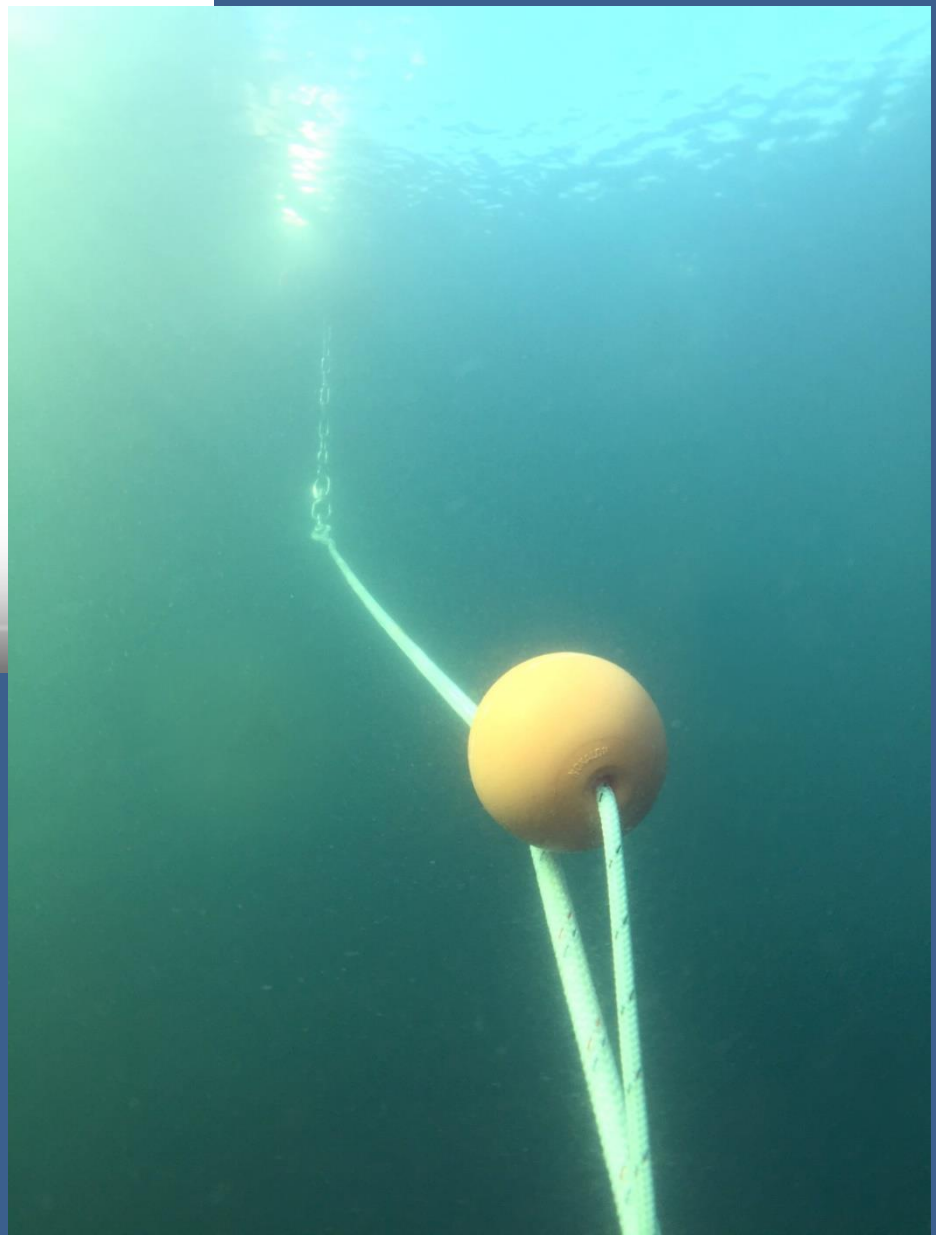
Climate Changes

Eelgrass Restoration
One estuary at a time

Monitoring




Seafloor friendly mooring
44



Voluntary No Anchor in Eelgrass Zones

Help Protect Eelgrass

Why?

Eelgrass meadows are essential habitat for many species including spawning fish, juvenile salmon and crabs. They are also feeding grounds for birds and mammals.

For more information: seachangesociety.com

PACIFIC SALMON FOUNDATION psf.ca

BOATINGBC ASSOCIATION

Sea Change MARINE CONSERVATION SOCIETY

How?

Anchor or moor deeper than 7m (23ft) chart depth.

For more information

Islands Trust Nearshore Eelgrass Maps

- http://www.islandstrustconservancy.ca/our-initiatives/marineconservation/eelgrass-mapping/

Seagrass Conservation Working Group
https://seagrassconservation.org/

SeaChange Marine Conservation Society
https://seachangesociety.com/

Thank you!

- Dave Sanford
- Cynthia Durance, R.P.Bio.
- Ramona de Graaf
- Tavish Campbell
- Jamie Smith – Coastal Photography Studio
- Cameron Murray – Topograhics Landscape Architects
- U.S. Fish and Wildlife Service
- Royal B.C. Museum Archives
- Chris Picard

Questions?