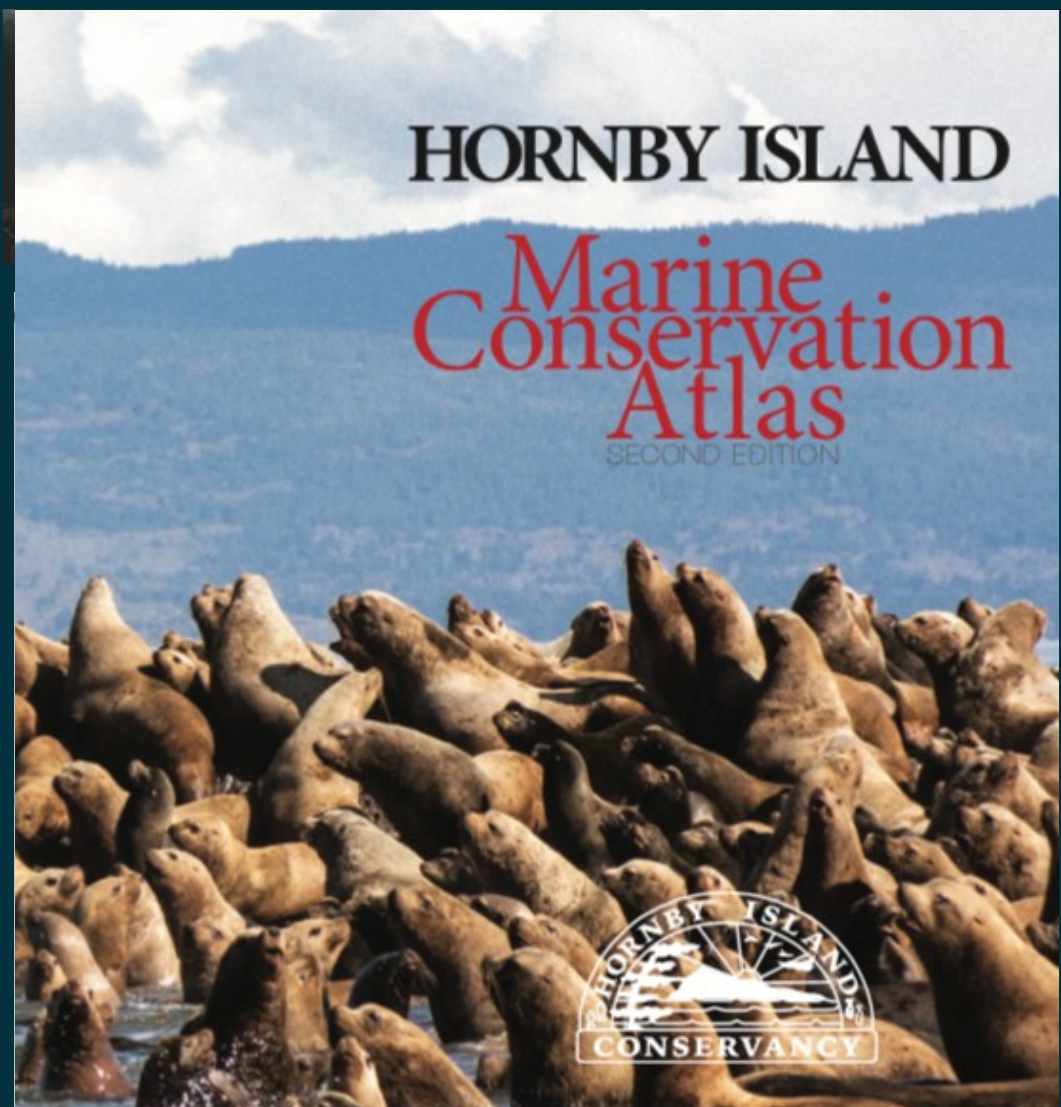
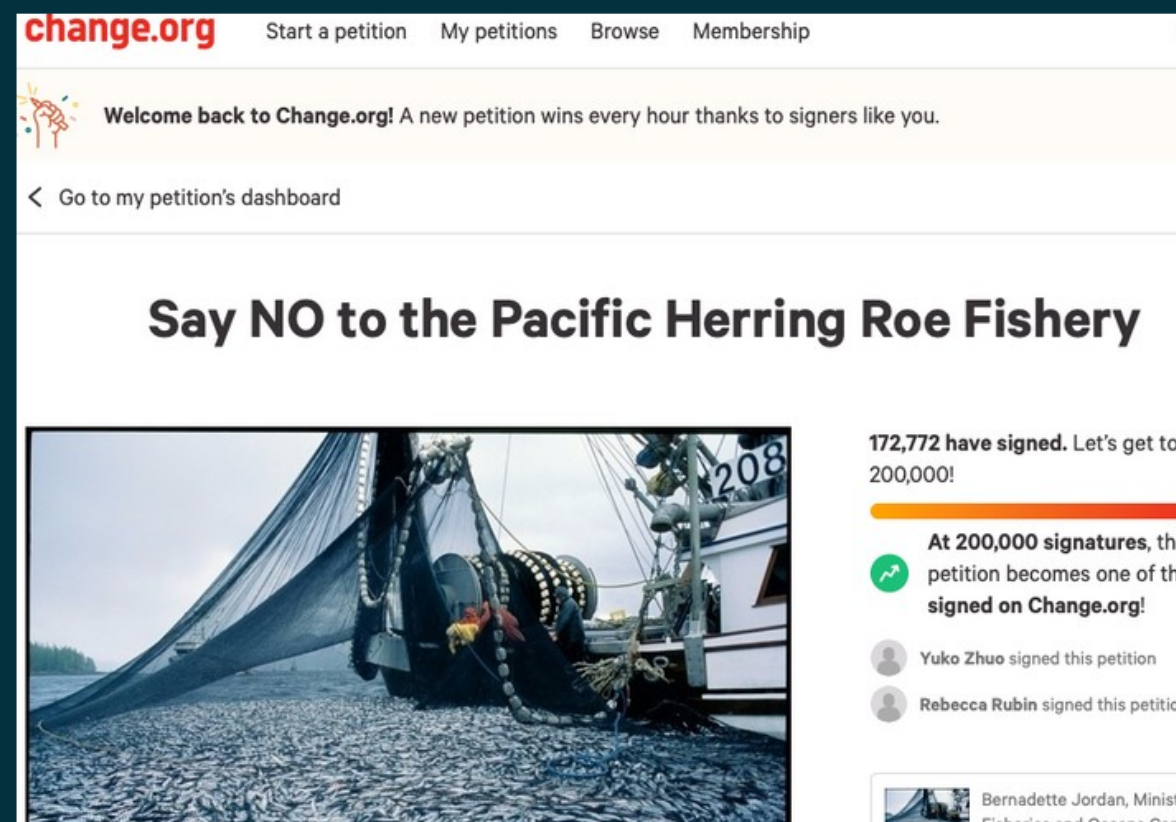




THE IMPORTANCE OF **HERRING** IN THE NORTHERN SALISH SEA

*BAYNES SOUND/LAMBERT CHANNEL
ECOSYSTEM FORUM
JUNE 17, 2022*

WHO WE ARE



WHY FOCUS ON HERRING?





PROTECTING THE LAST VIABLE HERRING SPAWN

Lambert Channel between Hornby and Denman Islands has had the most consistent spawn from Mexico to Alaska. Large eel grass beds and krill in the deeper waters are ideal herring spawning habitat.

FIRST NATIONS FOOD & CULTURE

Coastal First Nations have long respected this remarkable fish and used it for food and culture for thousands of years. Some of the technologies used to harvest herring and its spawn have changed over time, while other methods continue to be used to this day.





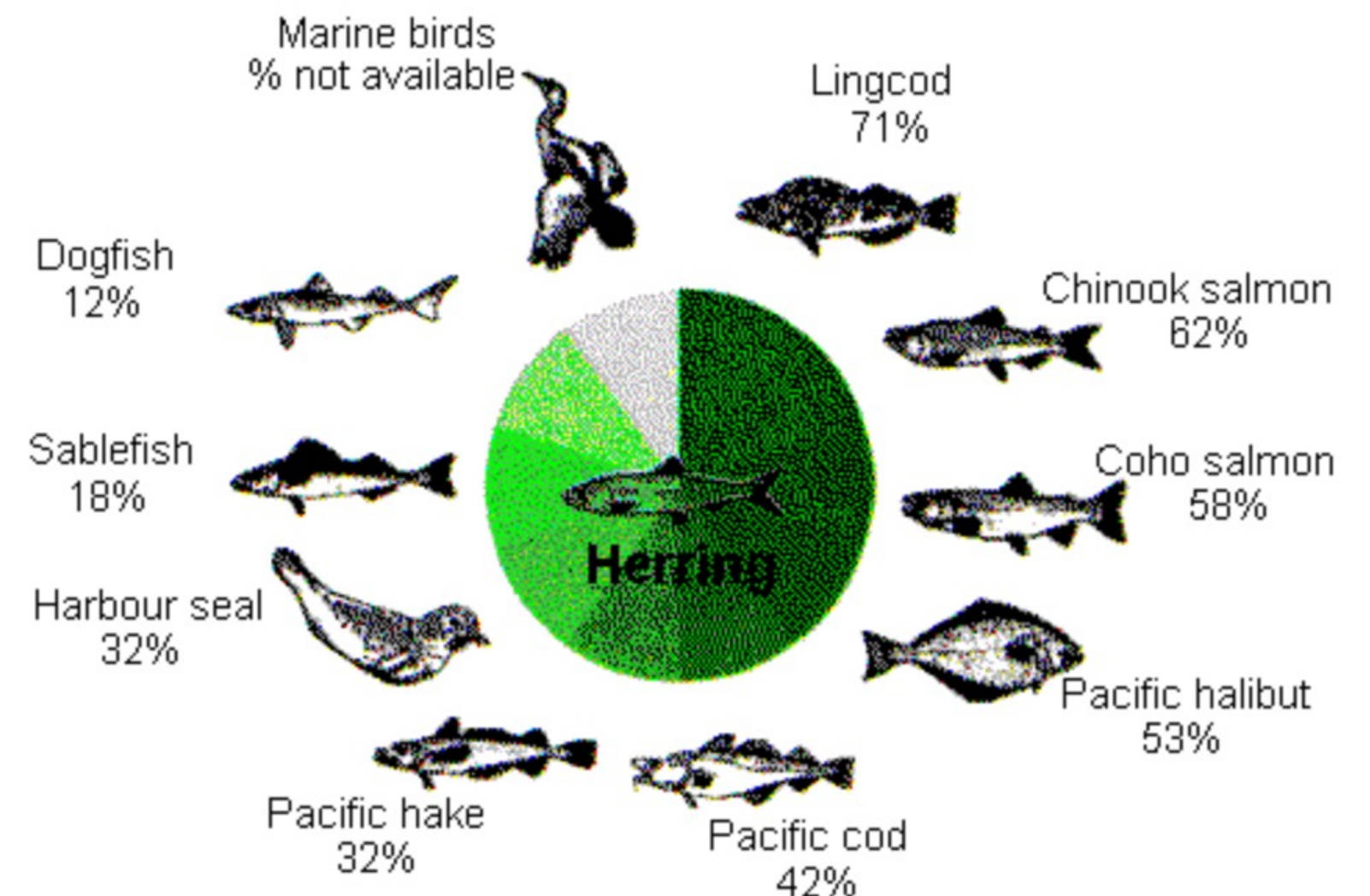
WILDLIFE SURVIVAL

Pacific herring are a rich and abundant food for land and marine wildlife.

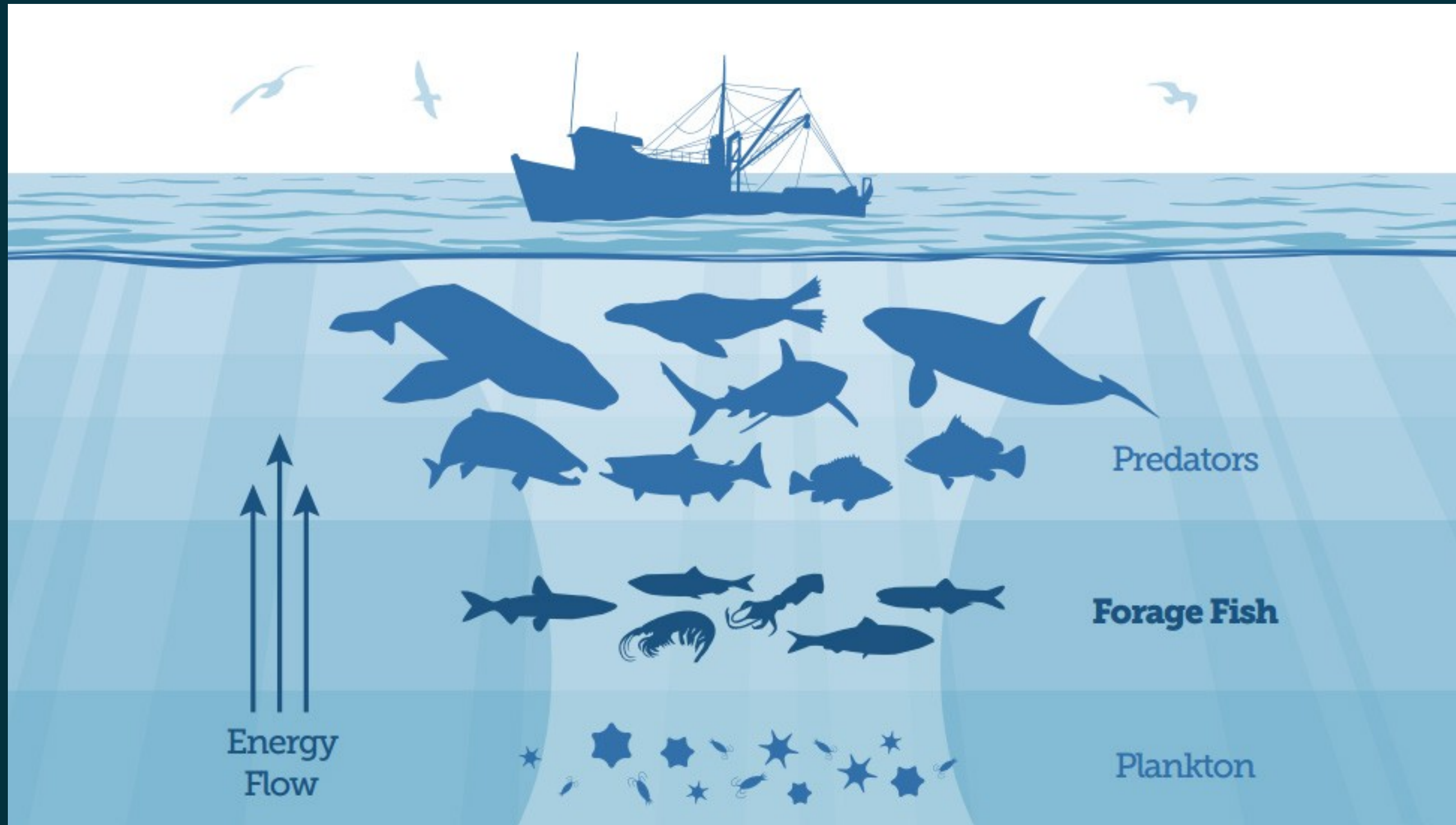
BIODIVERSITY

Every year in March the people of Hornby Island witness this spectacle that brings sea lions, seals, salmon, orcas, sea birds, and the fishing fleet to feast on the abundance of herring.

Importance of adult Pacific herring in predators' diets



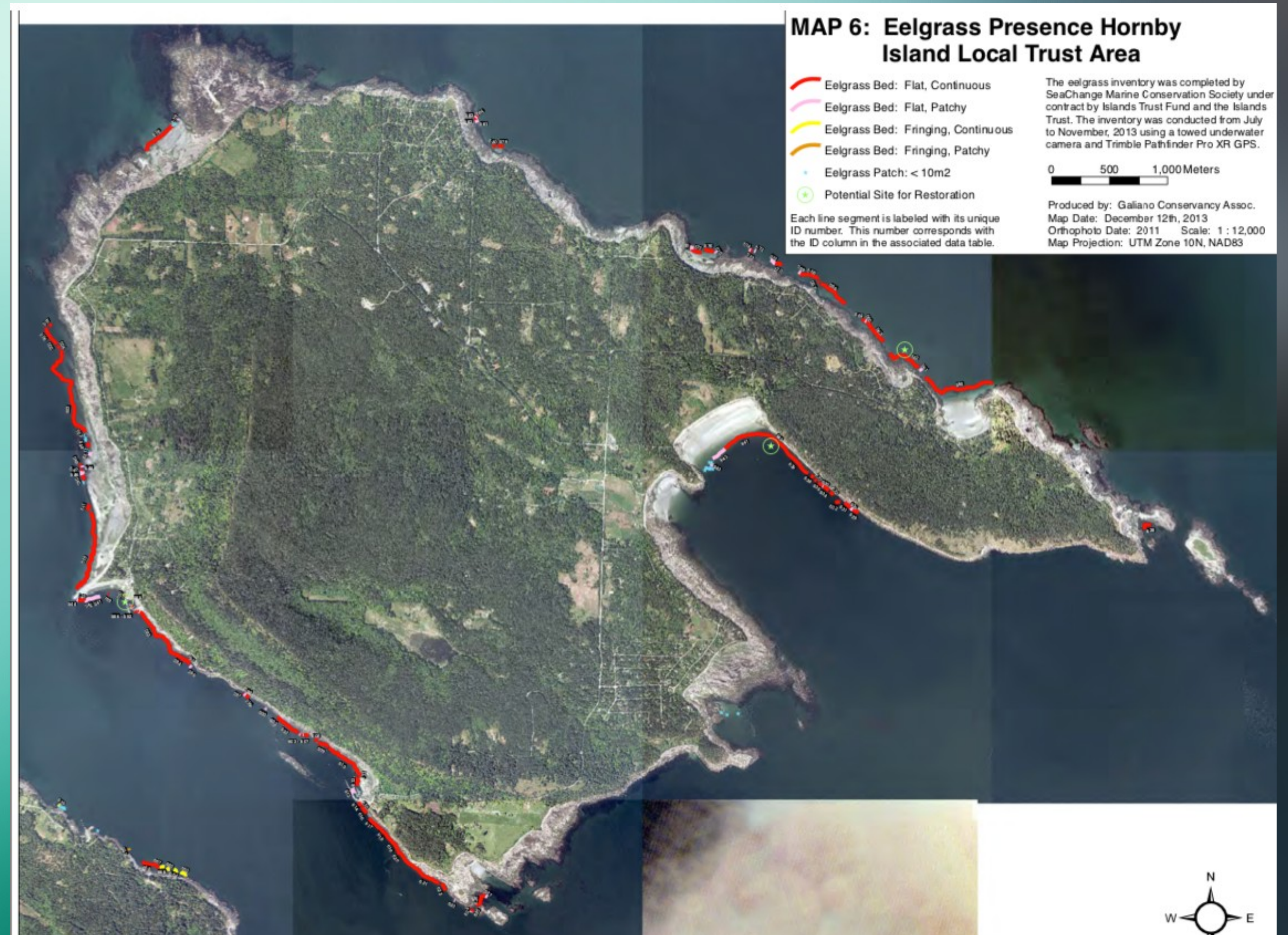
Source: Fisheries and Oceans Canada, Nanaimo, B.C.



IMPORTANCE OF HERRING IN THE FOOD WEB

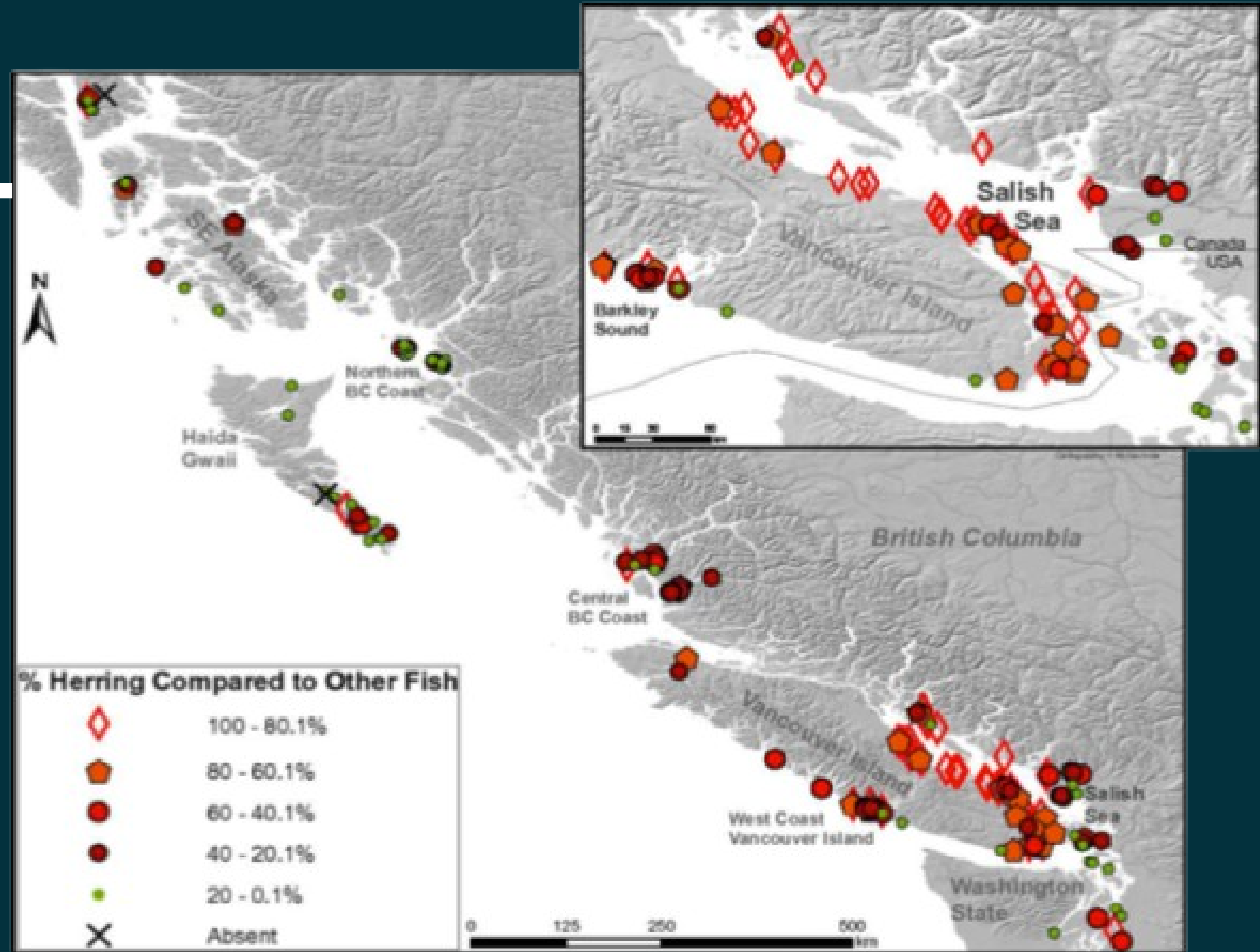
This graphic shows the importance of forage fish including herring in the entire marine food web.

HERRING SPAWNING HABITAT AROUND HORNBY ISLAND



UBC ARCHEOLOGICAL STUDY

This graphic shows the historic abundance of herring in First Nations middens and the concentration around the south end of Vancouver Island in WSÁNEĆ and other First Nations territories.



IMPORTANCE OF RESIDENT HERRING

The results of a Georgia and Johnstone Straits Herring Bait Fishery 1986 questionnaire indicated 170 non-migratory or resident and 91 migratory stocks.*

Since 1990 many resident herring stocks of the SoG have become extinct.*

DFO's Beacham, Schweigert et al study in 2008 indicated that herring from the east side of the Strait of Georgia (mainland inlet stocks) are predominantly "resident."

*SOURCE: THE GEORGIA AND JOHNSTONE STRAITS HERRING BAIT FISHERY IN 1990: RESULTS OF A QUESTIONNAIRE SURVEY. J.F SCHWEIGERT, DFO NANAIMO. M. LINEKIN, UNIVERSITY OF VICTORIA:



THE POINT IS...

LITTLE IS KNOWN ABOUT SoG RESIDENT HERRING. HOW CAN MANAGEMENT PLANS BE “ECOSYSTEM BASED” AND “PRECAUTIONARY” WHEN SO LITTLE IS KNOWN ABOUT THIS COMPONENT OF THE OVERALL HERRING STOCKS?



A satellite map of Hornby Island, New Zealand, showing a red-shaded area along the coastline indicating a spawning site. The island is green and forested, with a road labeled 'Central Road' running through it. The surrounding water is dark blue, and the coastline is irregular with several bays and peninsulas.

MARCH 2022 SPAWN ON HORNBY ISLAND

Credit: European Union, contains modified Copernicus Sentinel data 2022, processed with EO Browser

4 OUT OF 5 FISHERIES HAVE COLLAPSED

IS THE STRAIT OF GEORGIA HERRING
FISHERY BECOMING NUMBER 5?



WHAT HAPPENED WITH THE 2022 SPAWN?

1

QUOTAS REDUCED

Minister Murray lowered the herring fishery quota by 50% from 15,600 tons to 7,800 tons

3

QUOTAS NOT MET

Seines: 820 tons. Gillnets: 3407 tons. Fishers struggled to catch just over half of their reduced quotas.

2

HERRING SPAWNED

Spawn started around Hornby on March 4th, some up near the Horseshoe and Komas bluffs.

4

NO FISH TO CATCH

Test predictions had indicated up to 70,000 tons but the fish simply weren't here.

2022 SUMMARY

- No spawn on east coast of Denman – Lambert channel
- No spawn in Victoria, or very little from Victoria to Bowser
- No spawn in Baynes Sound
- Some spawn in Squamish, Coal Harbour and east coast of SOG – Resident stocks?



IMPORTANT RESEARCH NEEDS

1 HISTORIC RESIDENT STOCK LEVELS

Little is known about resident Strait of Georgia herring stocks although they potentially greatly contribute to First Nations cultural food needs and summer food for marine species when the migratory stocks are not in the SOG.

2 REPLENISHING STOCKS

Based on 1, what are the best ways to replenish the resident stocks?

3 GENETICS

Studies show Puget Sound herring have different genetic characteristics. Is the same true for SOG stocks?

4 PREDATOR USE OF HERRING

With the Nuu-Chah-Nulth Tribal Council, The Department of Fisheries and Oceans is carrying out a study to better understand all the predator uses of west-coast herring. A similar study is needed in the SOG so that future harvest levels can be truly precautionary and ecosystem based.

HERRING RECOVERY PROGRAM

1

Place a moratorium on the herring roe and food and bait fisheries until stocks have had a chance to rebuild coast-wide



2

Buy back and retire commercial herring fishing licences



4

Support fishers with retraining



6

Fund independent science to better understand herring as a keystone species



3

Assist First Nations to rebuild stocks and herring habitat in their territories



5

Support coastal communities



7

Change the high-volume, low-value industry into a high-value, low-volume fishery by supporting small scale industries that will use herring as human food, including First Nations roe-on-branch.

