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FIELDNOTES 2026 – 2027

Science field operations: Fact sheets
Pacific Region

Canada

Cat. No. Fs141-7E-PDF ISSN 2816-5268

Cover illustration: Intertidal neighbours: Pacific Goose barnacles (*Pollicipes polymerus*) and California mussels (*Mytilus californianus*).

Photo credit: Shane Kalyn (Fisheries and Oceans Canada)

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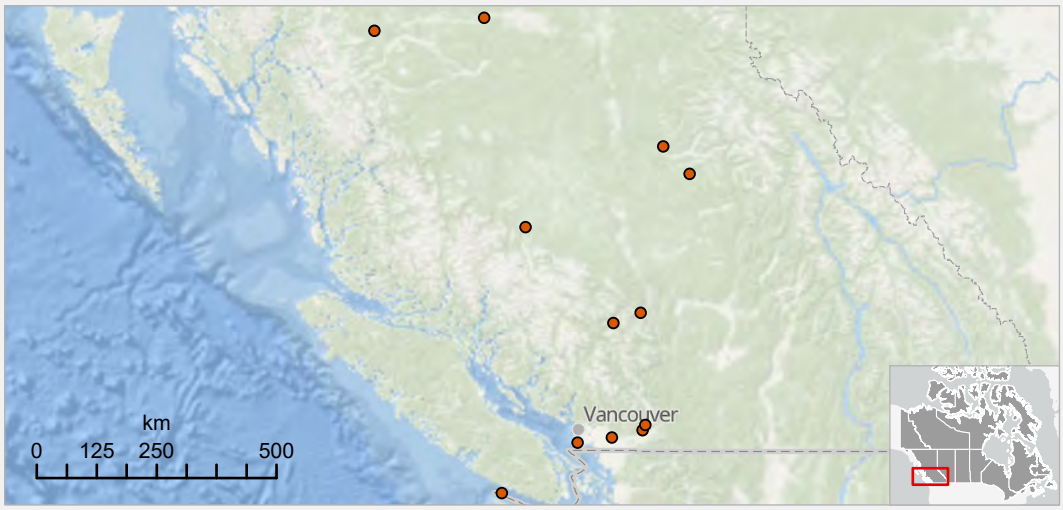
Sockeye salmon freshwater migratory stress
Fraser watershed



Testing adult salmon on the Fraser River near Chilliwack.

Sockeye salmon (Oncorhynchus nerka) at the Adams River.

UNIQUE ID
PAC_ESDFE_01

CATEGORY
Human impacts research and monitoring

DATES
April 1 to November 30, 2026

START YEAR
1997

RECURRENCE
Annually - Ongoing

LOCATIONS
San Juan Test Fishery (Pacific Salmon Commission); Fraser Watershed

VESSEL
N/A

EMAIL
David.Patterson@dfo-mpo.gc.ca

PHONE
604-666-5671

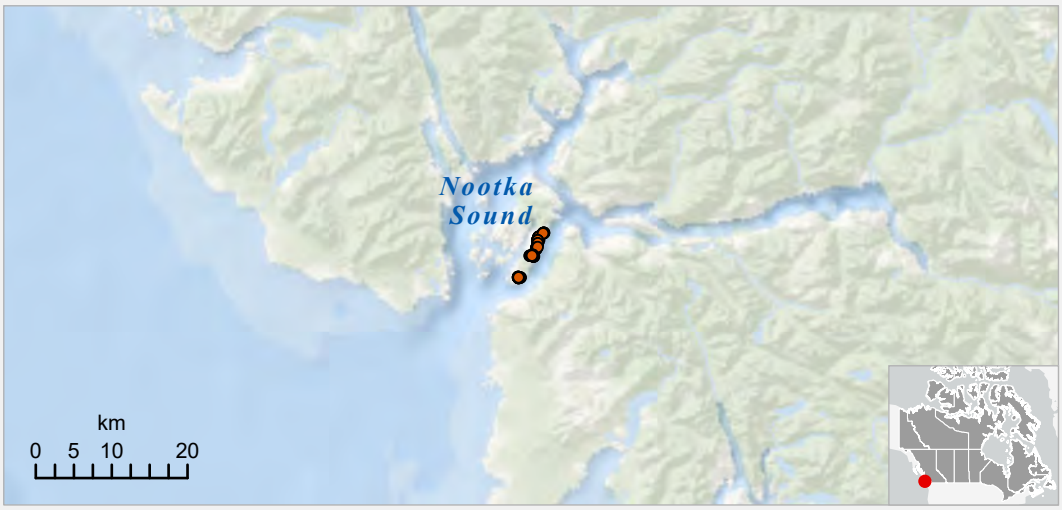
DESCRIPTION
Environmental conditions impact salmon migratory and reproductive success. This research on the migration biology of Pacific salmon under variable environmental conditions informs the science advice provided to fisheries and habitat managers.

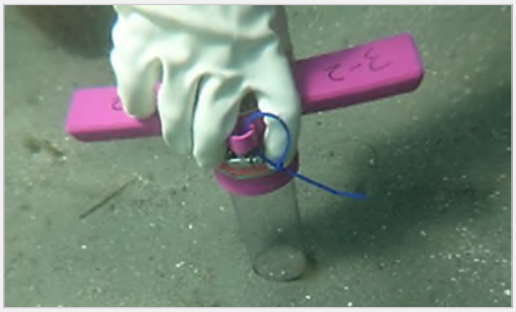
OBJECTIVES
1. Assess biological condition of juvenile and adult sockeye salmon in relation to migration conditions in the Fraser watershed.
2. Research the impact of migratory stress on salmon survival (e.g., water temperature, fishing interactions, high discharge).
3. Generate quantitative models to forecast in-season estimates of loss for Fraser sockeye.
4. Describe post-season estimates of mortality and predict in-season estimates of loss for proactive fisheries management.

COLLABORATORS
University of British Columbia, Simon Fraser University, Pacific Salmon Commission (Canada and USA)

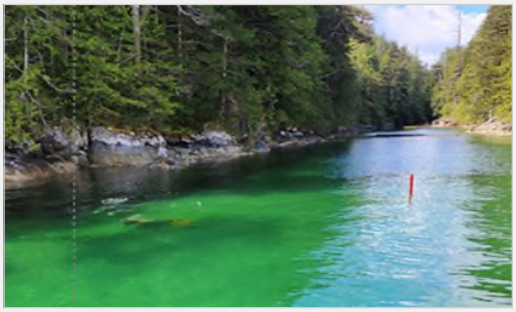
FOR MORE INFORMATION
Environmental Watch Program

Sunken oil dive survey
Nootka Sound





Underwater sediment core.
© Fisheries and Oceans Canada



"The Gap" sampling site on Bligh Island.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDMSEA_17

CATEGORY
Human impacts research and monitoring

DATES
May 1 to June 30, 2026

START YEAR
2024

RECURRENCE
One time only

LOCATIONS
Nootka Sound

VESSEL
R/V Rossia, R/V Red Ape

EMAIL
Michelle.Bigg@dfo-mpo.gc.ca

PHONE
250-616-2795

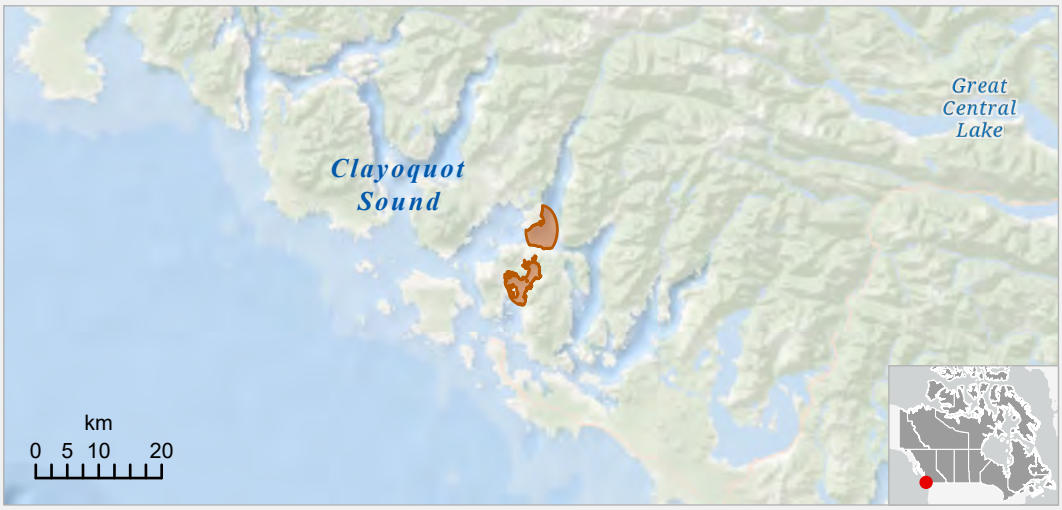
DESCRIPTION
Survey in the nearshore subtidal area for evidence of sunken oil from the M/V Schiedyk shipwreck. While the initial sinking of this cargo ship occurred in 1968, surface oil was reported as recently as 2020-2021. The survey is an extension of ongoing efforts to monitor and characterize oil discovered in the vicinity of the M/V Schiedyk. This work will add to existing data and information collected on the fate and behaviour of oil from this shipwreck.

OBJECTIVES
1. Collect sediment core samples on a SCUBA survey led by scientists with a background in the fate and behaviour of oil.

COLLABORATORS
Mowachaht-Muchalaht First Nation, Canadian Coast Guard, Environment and Climate Change Canada

FOR MORE INFORMATION
Please contact Michelle.Bigg@dfo-mpo.gc.ca.

Aquaculture monitoring
Clayoquot Sound



R/V Sixgill.
© M. Shimomura (Fisheries and Oceans Canada)

Conductivity, temperature and depth (CTD) sensor.
© Amy Elvidge (Fisheries and Oceans Canada)

UNIQUE ID
PAC_ESDNE_01

CATEGORY
Human impacts research and monitoring

DATES
July 1 to September 30, 2026

START YEAR
2017

RECURRENCE
Annually - Ongoing

LOCATIONS
Clayoquot Sound

VESSEL
R/V Sixgill

EMAIL
Justin.Trueman@dfo-mpo.gc.ca

PHONE
902-497-8915

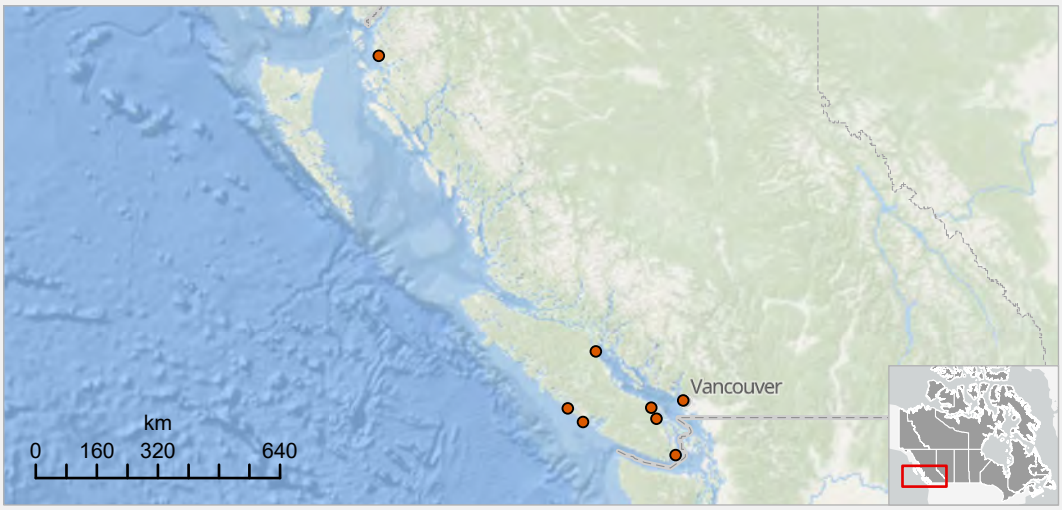
DESCRIPTION
This national Aquaculture Monitoring Program aims to detect, monitor and model chemical and biological inputs from aquaculture activities in the marine environment. The program helps inform policy and regulatory development and decision making by evaluating the spatio-temporal characteristics of zones directly influenced by finfish and shellfish aquaculture.

OBJECTIVES
1. Sample benthic sediment to test for drugs, pesticides, antibiotics, trace metals, sulphides, organic content and grain size.
2. Collect water samples to measure chlorophyll and organic matter.
3. Deploy oceanographic instruments to measure currents, turbidity, temperature, salinity, oxygen and chlorophyll.
4. Inform oceanographic model development and validation.

COLLABORATORS
Maaqutusiis Hahoulthee Stewardship Society

FOR MORE INFORMATION
In feed drugs, antibiotics and organic enrichment in marine sediments (en anglais seulement)

Aquatic invasive species settlement plate survey
Coastal British Columbia



Settlement plate with native and invasive species.
© Fisheries and Oceans Canada

Identifying AIS specimens.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDNE_04

CATEGORY
Human impacts research and monitoring

DATES
June 1 to October 31, 2026

START YEAR
2007

RECURRENCE
Annually - Ongoing

LOCATIONS
Prince Rupert harbour; Coastal Vancouver Island (Campbell River, Nanaimo, Ladysmith, Victoria, Ucluelet, Tofino); Vancouver harbour

VESSEL
N/A

EMAIL
Thomas.Therriault@dfo-mpo.gc.ca

PHONE
250-713-5484

DESCRIPTION

The accumulation of Aquatic Invasive Species (AIS) on vessels (biofouling) is a major contributor to their coastwide spread. Through the rotational deployment of settlement plates at new and long-term sites, this survey seeks to identify the distribution of sessile AIS in British Columbia waters. Understanding AIS distribution supports the development of effective management strategies and informs potential impacts, particularly in the context of climate change.

OBJECTIVES

1. Support early detection of new AIS.
2. Track changes over time in AIS and native sessile species.

COLLABORATORS

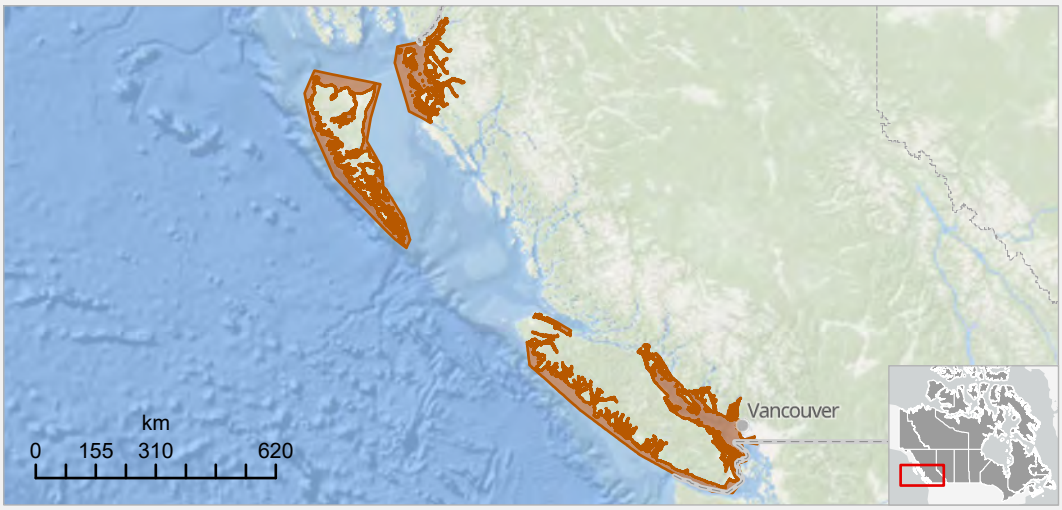
Lax Kw'alaams Band, Metlakatla First Nation, Musqueam Indian Band, səlilwətaɬ (Tsleil-Waututh Nation), Squamish Nation, Tsawwassen First Nation, Council of the Haida Nation, Coast Mountain College, Prince Rupert Port Authority, Port of Vancouver

FOR MORE INFORMATION

Ocean Biodiversity Information System - AIS settlement plate (en anglais seulement)

Invasive European green crab monitoring

North and south coast of British Columbia



R/V Styela.
© Fisheries and Oceans Canada

Green crabs (Carcinus maenas) caught with Fukui traps.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDNE_05

CATEGORY
Human impacts research and monitoring

DATES
April 1 to November 30, 2026

START YEAR
2005

RECURRENCE
Annually - Ongoing

LOCATIONS
Dixon Entrance, Haida Gwaii, Chatham Sound, Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island; Howe Sound, Burrard Inlet, Boundary Bay

VESSEL
R/V Styela

EMAIL
Thomas.Therriault@dfo-mpo.gc.ca

PHONE
250-713-5484

DESCRIPTION

European green crab (EGC) monitoring informs efforts to prevent the spread of this highly invasive species throughout coastal British Columbia. Folding Fukui traps deployed in the intertidal zone are used to track crab populations, both at sites where EGC are established and at new sites where they may become established. These data will provide insights into the habitat preferences and potential impacts of EGC.

OBJECTIVES

1. Use knowledge of EGC habitat preferences to improve early detection.
2. Provide advice on the spread and potential impacts of EGC.
3. Track changes in EGC catch per unit effort (a proxy for abundance) at core monitoring sites.

COLLABORATORS

Ahousaht First Nation, Lax Kw'alaams Band, Metlakatla First Nation, T'Sou-ke First Nation, Tla-o-qui-aht First Nation, Toquaht Nation, Council of the Haida Nation, Parks Canada, Washington Department of Fish and Wildlife (USA), University of Washington (USA), Puget Sound Partnership (USA), Washington Sea Grant Crab Team (USA), Prince Rupert Port Authority

FOR MORE INFORMATION

Ocean Biodiversity Information System - European green crab (en anglais seulement)

Aquaculture benthic recovery
Discovery Islands

UNIQUE ID
PAC_ESDNE_12

CATEGORY
Human impacts research and monitoring

DATES
June 20 to 30 and September 2 to 10, 2026

START YEAR
2026

RECURRENCE
Annually - Ongoing

LOCATIONS
Discovery Islands, Broughton Archipelago

VESSEL
CCGS Vector

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Terri.Sutherland@dfo-mpo.gc.ca

PHONE
604-775-8843

CCGS Vector.
© Terri Sutherland (Fisheries and Oceans Canada)

Culture of Pacific oysters (Magallana gigas) in the intertidal zone.
© Terri Sutherland (Fisheries and Oceans Canada)

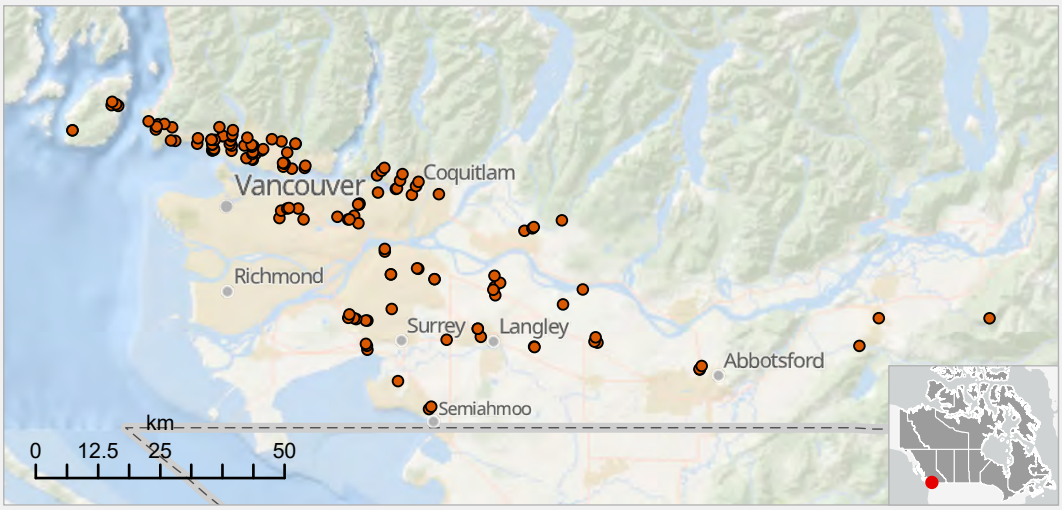
DESCRIPTION
Benthic recovery processes associated with seabed physical-chemical and macrofaunal indicators are not well understood, since existing global studies are based on vastly different aquaculture, oceanographic, and seafloor settings. To date, research in British Columbia has been limited to two recovery studies with contrasting outcomes. This project will provide recovery information, based on vastly different finfish aquaculture (FFA), oceanographic and seabed settings.

OBJECTIVES
1. Establish a time-series survey to determine the rate of change in seabed recovery processes post-FFA facility removal.

COLLABORATORS
We Wai Kai First Nation, Wei Wai Kum First Nation, Canadian Coast Guard, Natural Resources Canada

FOR MORE INFORMATION
Please contact Terri.Sutherland@dfo-mpo.gc.ca.

Community stream monitoring project
Lower Mainland of British Columbia



Collecting data at Silver Creek with a volunteer.
© Alan James (Stoney Creek Environment Committee)

Cypress Creek, West Vancouver.
© Alan James (Stoney Creek Environment Committee)

UNIQUE ID
PAC_ESDNE_14

CATEGORY
Human impacts research and monitoring

DATES
April 1, 2026 to March 31, 2027

START YEAR
2019

RECURRENCE
Annually - Ongoing

LOCATIONS
Lower Mainland of British Columbia (various watersheds from Howe Sound to Chilliwack)

VESSEL
N/A

EMAIL
Nikki.Kroetsch@dfo-mpo.gc.ca

PHONE
604-358-3055

DESCRIPTION
The Pacific Science Enterprise Centre's Community Stream Monitoring Project (CoSMo) aims to better understand and monitor temperatures and other factors in salmon-bearing urbanized watersheds across the Lower Mainland of British Columbia. CoSMo also aims to develop and foster relations with community groups and municipal governments, and improve collaboration with external partners.

OBJECTIVES
1. Monitor and better understand water temperatures, depths, and road salt contamination in urbanized streams.
2. Collaborate with partners to understand factors influencing salmon in urban watersheds.
3. Improve relationships with stewardship groups and municipal governments.
4. Facilitate public education and engagement.

COLLABORATORS
BC Lower Mainland Municipalities, British Columbia Institute of Technology, University of British Columbia, Simon Fraser University, Streamkeeper organizations, other community partners

FOR MORE INFORMATION
DFO PSEC community stream monitoring

Impacts of contaminants on Southern Resident killer whales

South coast of British Columbia

Southern Resident killer whale (Orcinus orca).
© Dylan Smyth (Fisheries and Oceans Canada)

Sediment sampling.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDOEB_08

CATEGORY
Human impacts research and monitoring

DATES
May 1 to November 30, 2026

START YEAR
2019

RECURRENCE
Annually - Ongoing

LOCATIONS
Strait of Georgia, Port San Juan; Fraser River estuary

VESSEL
N/A

EMAIL
Lisa.Loseto@dfo-mpo.gc.ca

PHONE
204-218-6077

DESCRIPTION

Southern Resident Killer Whales (SRKW) face significant threats from human activities, including from high levels of endocrine disrupting contaminants. This study will support the recovery of this species at risk by evaluating contaminants found in SRKWs, their diet, and their habitat; by developing and applying new tools to prioritize contaminants of concern; and by delivering refined guidance.

OBJECTIVES

1. Characterize contaminant exposure by documenting levels in SRKW diet (e.g., salmon, herring) and the diet of their prey.

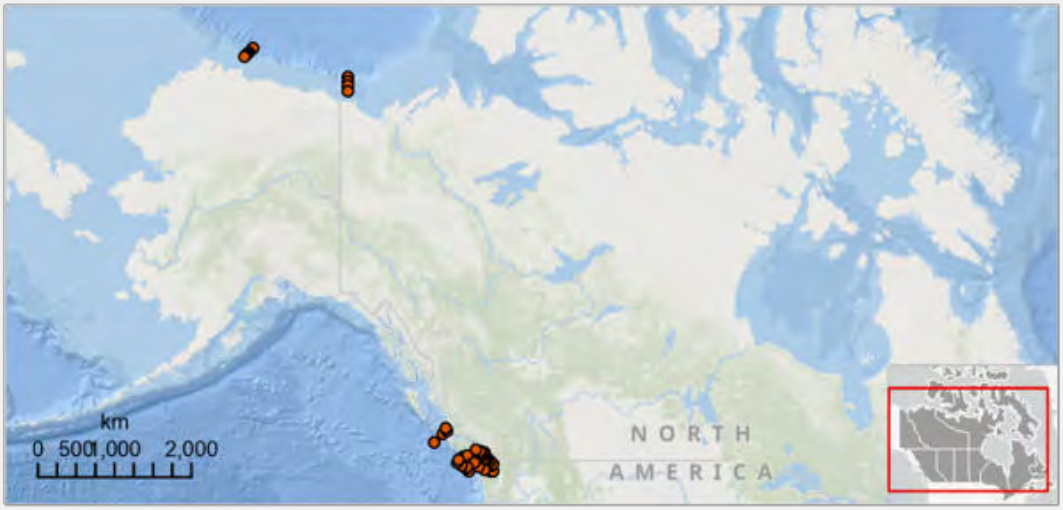
COLLABORATORS

Pacheedaht First Nation

FOR MORE INFORMATION

Southern Resident killer whale species profile

Marine biotoxin monitoring
Beaufort Shelf and coastal British Columbia



CCGS Vector.
© Fisheries and Oceans Canada

Citizen Science sampling.
© Nicole Frederickson (Pacific Salmon Foundation)

UNIQUE ID
PAC_OSDOEB_10

CATEGORY
Human impacts research and monitoring

DATES
January 11 to December 13, 2026

START YEAR
2020

RECURRENCE
Annually - Ongoing

LOCATIONS
Beaufort Shelf; Queen Charlotte Sound; Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island

VESSEL
CCGS Vector, citizen scientists' and First Nations' small vessels

EMAIL
Andrew.Ross@dfo-mpo.gc.ca

PHONE
250-363-6800

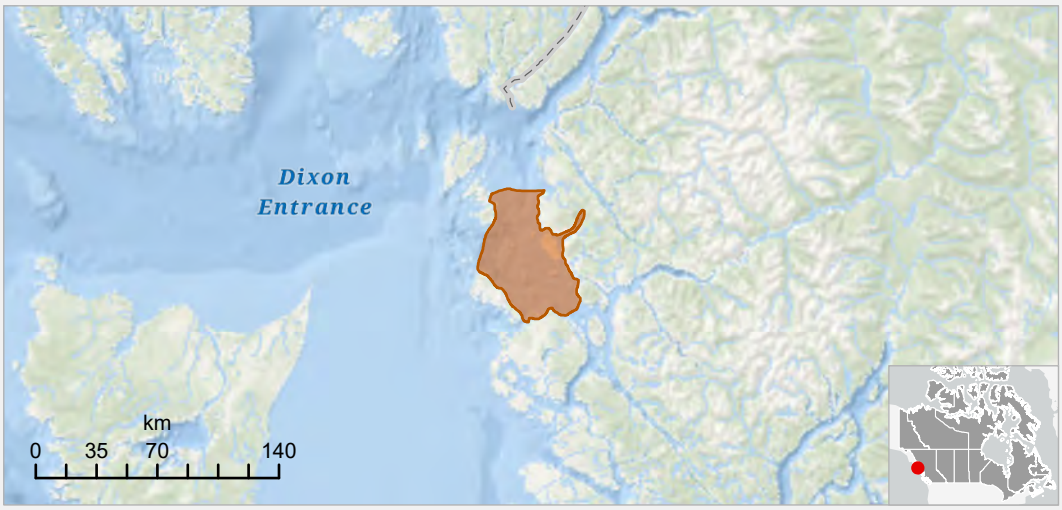
DESCRIPTION
The purpose of this field operation is to increase understanding of the dynamics and drivers of harmful algal blooms, and associated biotoxins, that can impact wild and farmed salmon and endangered marine mammals. Field staff collect sea water samples and environmental data (temperature, salinity, oxygen, nutrients) two to three times a year at up to 29 locations, and monthly at up to 18 locations, including salmon farms and critical habitat for fish and marine mammals.

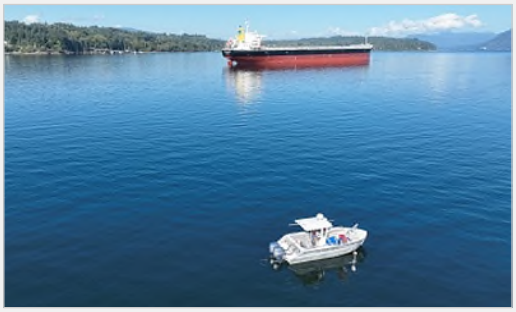
OBJECTIVES
1. Collect sea water samples and environmental data.
2. Filter sea water and analyze filters and filtered seawater for up to 26 biotoxins.
3. Identify and measure the amounts of harmful algae and the biotoxins that they produce.
4. Monitor seasonal and annual trends in the abundance of harmful algae and biotoxins.
5. Compare with temperature and other factors to help predict when toxic algal blooms may occur.

COLLABORATORS
Snuneymuxw First Nation, Canadian Coast Guard, Parks Canada, Loon Foundation (Coastal Watershed Monitoring Program), Cermaq Canada

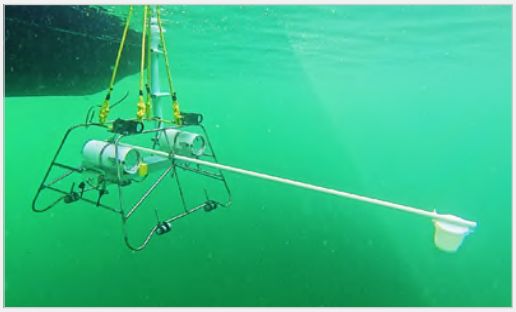
FOR MORE INFORMATION
Algal biotoxins in the northern Salish Sea (en anglais seulement)

Anchorage impacts on seafloor ecosystems
Chatham Sound





Biologists conducting sediment grab sampling.
© Ashley Park (Fisheries and Oceans Canada)



Baited remote underwater stereo-video system.
© Fiona Francis (Fisheries and Oceans Canada)

UNIQUE ID
PAC_OSDROPES_05

CATEGORY
Human impacts research and monitoring

DATES
September 1, 2026 to March 30, 2027

START YEAR
2021

RECURRENCE
Never

LOCATIONS
Prince Rupert Harbour and Chatham Sound

VESSEL
First Nations' aluminum hull vessels

EMAIL
Cathryn.Murray@dfo-mpo.gc.ca

PHONE
250-363-3001

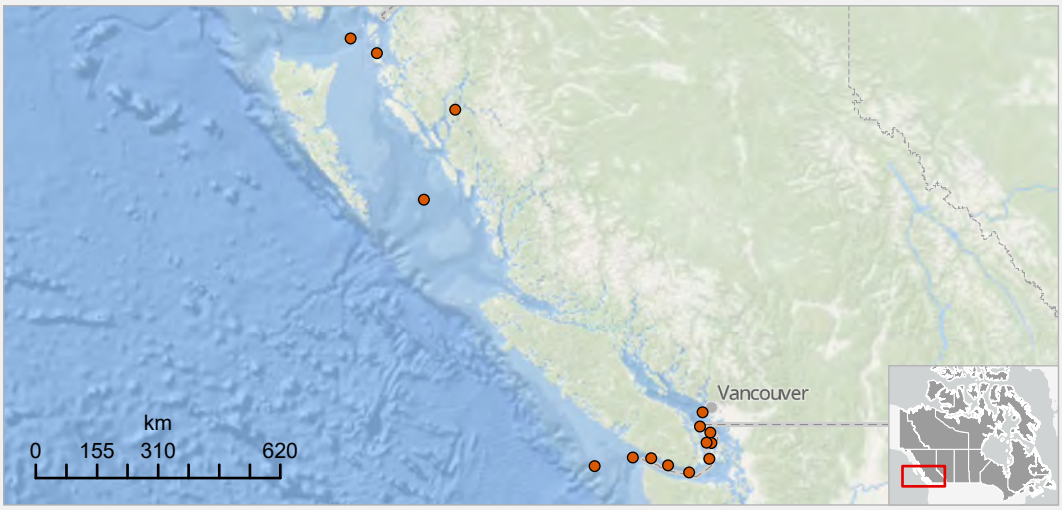
DESCRIPTION
With the expansion of the shipping industry, ships are spending more time at anchorages and expanding to previously little-used anchorage areas. This research aims to assess the impacts of commercial anchoring on significant benthic areas – including glass sponge reefs and areas of cultural, social, and ecological importance to First Nations – through remotely operated vehicle (ROV) surveys, baited remote underwater stereo-video system (BRUVs) surveys, multibeam bathymetry, and grab-and-core sampling.

OBJECTIVES
1. Investigate physical disturbance from commercial anchoring, including anchor scouring and changes in sediment resuspension.
2. Quantify the overlap of anchorage footprints with sensitive benthic areas, such as sponge reefs and other seafloor species.
3. Provide a baseline for change detection in these areas.

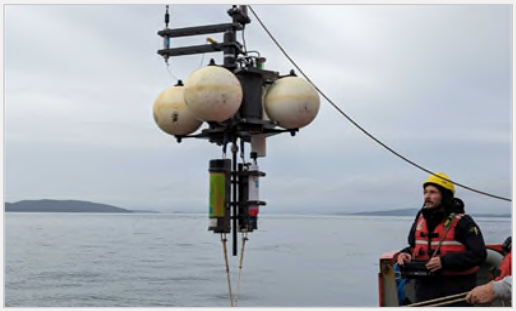
COLLABORATORS
Kitsumkalum First Nation, Lax Kw'alaams Band, Natural Resources Canada, Prince Rupert Port Authority

FOR MORE INFORMATION
Effects of commercial vessel anchorages (en anglais seulement)

Soundscape monitoring
Coastal British Columbia



CCGS Vector.
© Fisheries and Oceans Canada



Mooring deployment from the CCGS Vector.
© Seth Fleming-Alho (Fisheries and Oceans Canada)

UNIQUE ID
PAC_OSDSOTO_06

CATEGORY
Human impacts research and monitoring

DATES
June 30 to July 7 and October 21 to 28 2026; March 17 to 24, 2027

START YEAR
2018

RECURRENCE
Annually - Ongoing

LOCATIONS
Dixon Entrance, Chatham Sound, Hecate Strait, Ursula Channel; Strait of Georgia, Haro Strait, Boundary Pass, Juan de Fuca Strait, Swiftsure Bank, La Pérouse Bank

VESSEL
CCGS Vector

EMAIL
Rianna.Burnham@dfo-mpo.gc.ca

PHONE
250-818-8496

DESCRIPTION

Background ambient noise levels in the ocean are currently elevated compared to pre-industrial times. This field operation consists of servicing underwater acoustic recorders, which provide information about changes in the marine soundscape. Data will support acoustic comparisons over time and space, as well as the identification of human-caused noise sources and their potential impacts. The recordings also help assess effectiveness of acoustic disturbance mitigation measures for southern resident killer whales. Work along the north coast will be conducted in collaboration with PAC_OSDSOTO_10.

OBJECTIVES

1. Describe the underwater soundscape.
2. Monitor changes in the soundscape, specifically anthropogenic noise.
3. Assess effectiveness of mitigation measures addressing anthropogenic noise.
4. Use recordings to describe whale presence.

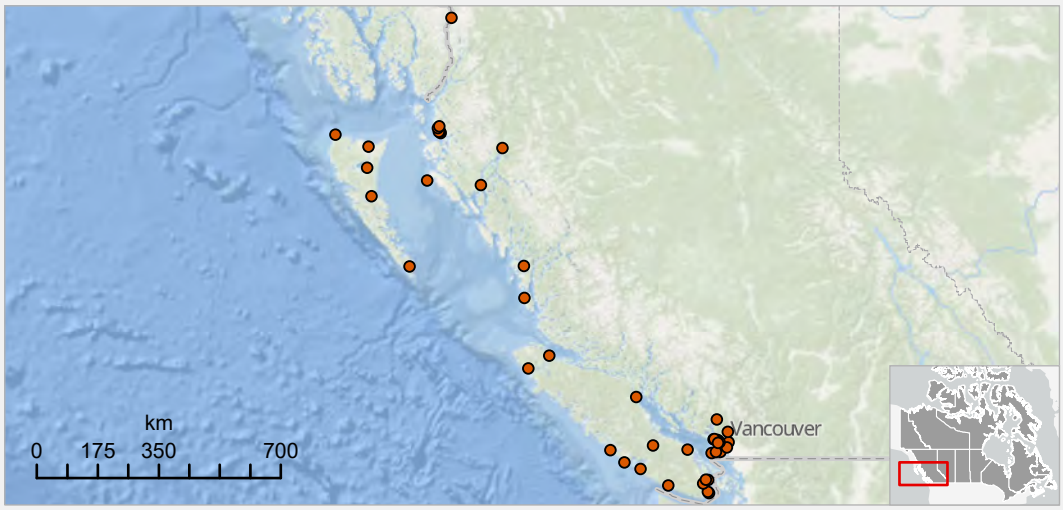
COLLABORATORS

Canadian Coast Guard

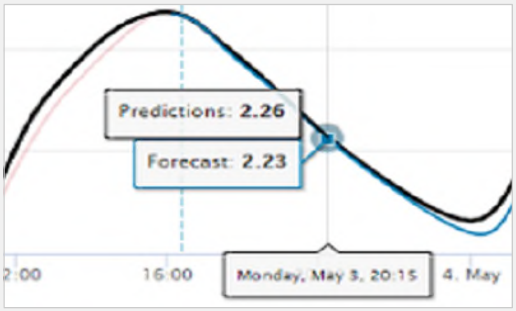
FOR MORE INFORMATION

Implications of wind and vessel noise (en anglais seulement)

Tide, current and water level gauge servicing
Coastal British Columbia



Campbell River permanent gauge station.
© Fisheries and Oceans Canada



Water level tools.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_CHSDATS_03

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1, 2026 to March 31, 2027

START YEAR
1893

RECURRENCE
Annually - Ongoing

LOCATIONS
Haida Gwaii, Hecate Strait, Chatham Sound, Queen Charlotte Sound, coastal inlets of British Columbia; Coastal Vancouver Island (Winter Harbour, Port Hardy, Campbell River, Nanaimo, Saanich Inlet, Sidney, Victoria, Gorge Waters), Roberts Bank; Howe Sound, səlilw̓ət (Burrard Inlet and Indian Arm), Fraser River

VESSEL
N/A

EMAIL
Gwil.Roberts@dfo-mpo.gc.ca

PHONE
250-507-7329

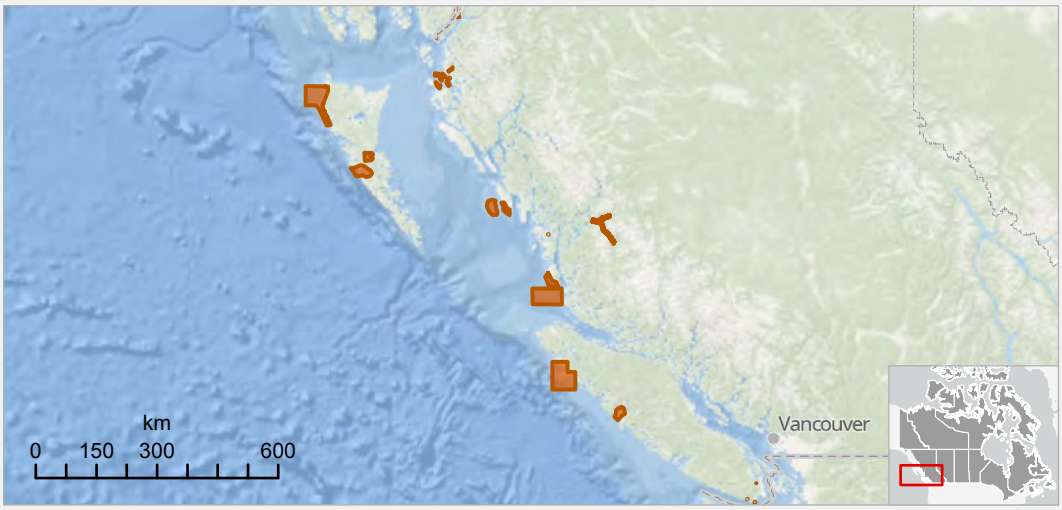
DESCRIPTION
The Canadian Hydrographic Service installs and maintains water level network equipment, tide gauges, and current meters. Collecting this data supports tidal predictions, observations, and forecasts (including Canadian Tide Table production), the continuous vertical datum model, tsunami and storm surge response, and bathymetric surveying.

OBJECTIVES
1. Service existing permanent water level network infrastructure equipment.
2. Establish or reoccupy temporary tide gauges.
3. Service existing current meters in Prince Rupert, Masset, Victoria, and Vancouver.

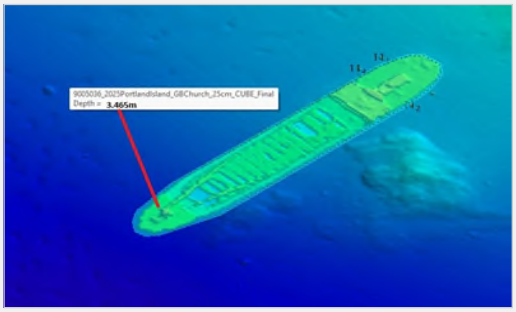
COLLABORATORS
Coastal Indigenous communities, Environment and Climate Change Canada, Natural Resources Canada, Transport Canada, municipalities and cities, property owners, Port of Vancouver, Prince Rupert Port Authority, other port authorities

FOR MORE INFORMATION
Canadian Hydrographic Service tides, currents, and water levels

Bathymetry, seabed classification and tide gauge servicing
Coastal British Columbia



CCGS Otter Bay.
© Fisheries and Oceans Canada



Multibeam survey of the M/V G.B. Church.
© Canadian Hydrographic Service (Fisheries and Oceans Canada)

UNIQUE ID
PAC_CHSDATS_04

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1 to October 2, 2026

START YEAR
1891

RECURRENCE
Annually - Ongoing

LOCATIONS
Haida Gwaii, Portland Canal, Chatham Sound, Prince Rupert Harbour, Hecate Strait, Queen Charlotte Sound, McLoughlin Bay, Dean Channel, North Bentinck Arm, South Bentinck Arm, Calvert Island; Brooks Bay, Checleset Bay, Nootka Sound, Gabriola Island, Saanich Inlet, Sooke Inlet, Pedder Bay

VESSEL
CCGS Vector, CCGS Otter Bay

EMAIL
Duncan.Havens@dfo-mpo.gc.ca

PHONE
250-363-6380

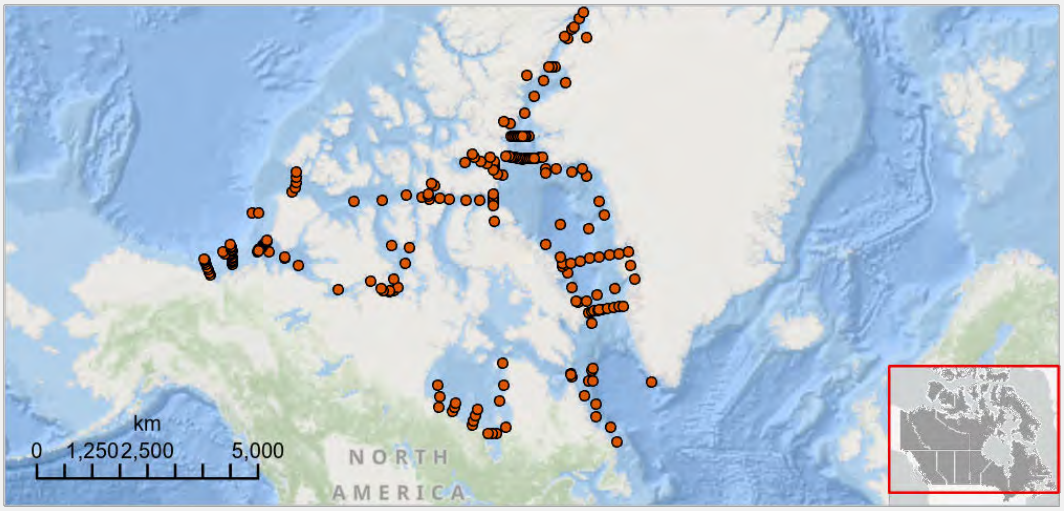
DESCRIPTION
Mapping of the seabed and collection of bathymetry to enhance navigation safety with periodic tide gauge servicing.

OBJECTIVES
1. Collect multibeam bathymetry to improve navigational charts and products and aid scientific research.
2. Detect and classify subsurface shipping hazards.
3. Deploy and service tide gauges to support bathymetric surveying and the Canadian Hydrographic Services water levels network.
4. Collect acoustic data to determine seabed classification for navigation and scientific research.
5. Capture laser scanner data for coastline delineation and shoreline features, including maritime infrastructure.

COLLABORATORS
Esquimalt First Nation, Gitxaała Nation, Heiltsuk Nation, Kitselas First Nation, Kitsumkalum First Nation, Lax Kw'alaams Band, Central Coast Indigenous Resource Alliance, Council of the Haida Nation, Canadian Coast Guard, Environment and Climate Change Canada, Natural Resources Canada (Geological Survey of Canada), King's Harbour Master (Department of National Defence), Prince Rupert Port Authority

FOR MORE INFORMATION
CHS non-navigational bathymetric data - NONNA 10 and 100

Marine carbon dioxide monitoring
Arctic Ocean



CCGS Amundsen.
© Fisheries and Oceans Canada

Conductivity, temperature, and depth (CTD) rosette.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDOEB_01

CATEGORY
Hydrographic and oceanographic surveys

DATES
July 1 to October 31, 2026

START YEAR
2003

RECURRENCE
Annually - Ongoing

LOCATIONS
Arctic Ocean, Beaufort Sea, Canadian Archipelago, Baffin Bay, Labrador Sea, Hudson Bay

VESSEL
CCGS Amundsen

EMAIL
Lisa.Miller@dfo-mpo.gc.ca

PHONE
431-330-0002

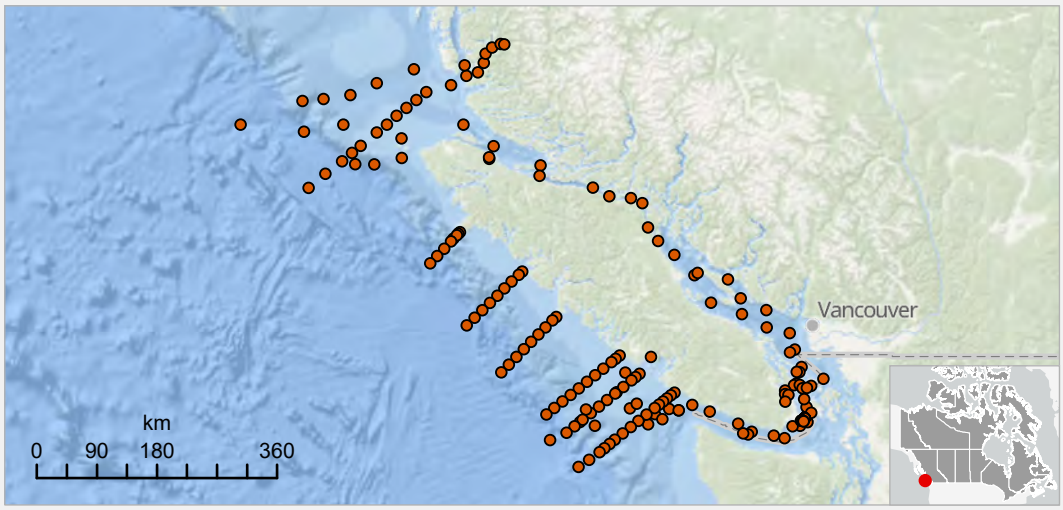
DESCRIPTION
This field operation consists of ocean carbon chemistry sampling at a sub-set of ArcticNET Observation Network stations. In combination with improved modelling and remote sensing, data from this annual time series support the development of adaptation strategies to minimize negative impacts and maximize positive outcomes resulting from the human-induced transformation of the Canadian Arctic.

OBJECTIVES
1. Measure ocean carbon dioxide variables at repeat stations across the Canadian Arctic.
2. Study marine biogeochemical processes to understand the feedback between climate change, ocean acidification, and local systems.

COLLABORATORS
Canadian Coast Guard, Amundsen Science, University of Calgary, University of Manitoba

FOR MORE INFORMATION
Amundsen Science

Oceanographic survey
Southern Canadian continental shelf



CCGS John P. Tully.
© Jackson Chu (Fisheries and Oceans Canada)

"Bongo" nets used to sample the zooplankton.
© Shelton Du Preez (Fisheries and Oceans Canada)

UNIQUE ID
PAC_OSDOEB_04

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 29 to May 11, 2026; March 3 to 16, 2027

START YEAR
1979

RECURRENCE
Annually - Ongoing

LOCATIONS
Queen Charlotte Sound; Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island

VESSEL
CCGS Sir John Franklin

EMAIL
Lu.Guan@dfo-mpo.gc.ca

PHONE
236-464-0569

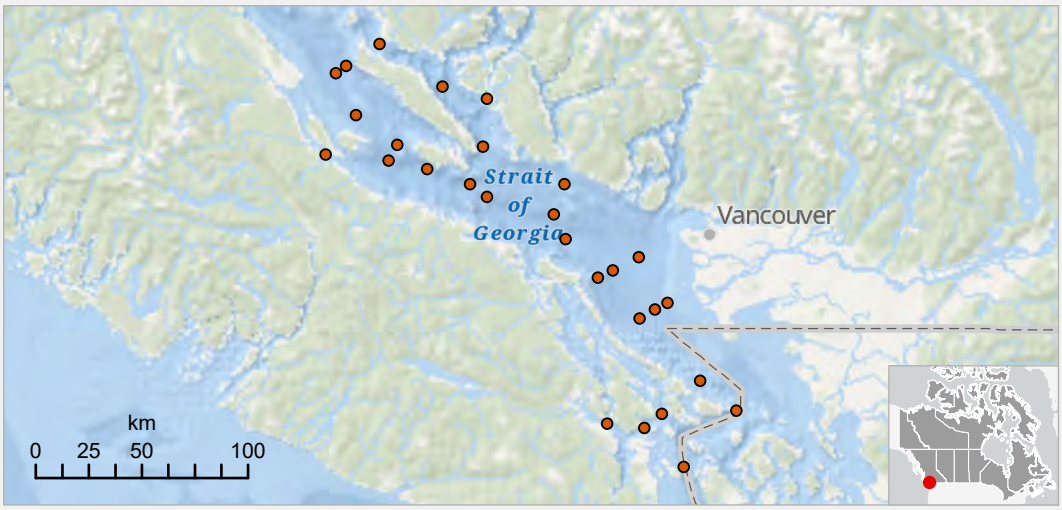
DESCRIPTION
This oceanographic survey – also known as La Pérouse – examines water properties and plankton to identify changing ocean conditions; and to inform understanding of abundance and survival of fish populations. This work supports the development of ecosystem status indicator sets and trends useful for management.

OBJECTIVES
1. Identify changes in species composition and abundance of plankton.
2. Understand the causes of these changes.
3. To the extent possible; forecast the consequences of these changes in plankton to marine food webs.
4. Characterize and synthesize large-scale changes to the marine ecosystems of British Columbia.

COLLABORATORS
Canadian Coast Guard, Environment and Climate Change Canada, University of British Columbia, University of Maryland (USA), Oregon State University (USA), University of Victoria

FOR MORE INFORMATION
State of the Pacific Ocean

Plankton surveys
Strait of Georgia



UNIQUE ID
PAC_OSDOEB_06

CATEGORY
Hydrographic and oceanographic surveys

DATES
July 15 to 19 and August 26 to 30, 2026; February 16 to March 3 and March 9 to 13, 2027

START YEAR
2015

RECURRENCE
Annually - Ongoing

CCGS Neocaligus.
© Fisheries and Oceans Canada

Zooplankton samples from the Strait of Georgia.
© Fisheries and Oceans Canada

LOCATIONS
Strait of Georgia

VESSEL
CCGS Neocaligus, CCGS Sir John Franklin

EMAIL
Kelly.Young@dfo-mpo.gc.ca

PHONE
250-363-6502

DESCRIPTION

These surveys consist of biological and physical sampling at 28 stations to improve understanding of seasonal plankton cycles, year-to-year variability, baseline prey data for fisheries research, and plankton production rates. The latter is used to characterize how seasons, oceanographic conditions, and plankton compositions interact to regulate energy available to higher food-web levels. Together with additional DFO surveys transiting the Strait of Georgia (PAC_ESDREEFF_01, PAC_OSDOEB_04, PAC_OSDROPES_04) plankton data are collected approximately monthly from February to October.

OBJECTIVES

1. Conduct full depth CTD (conductivity, temperature, and depth) profile, including light availability, oxygen and fluorescence.
2. Conduct full depth (10m off bottom to surface) zooplankton net tow and preserve samples for taxonomy.
3. Collect water samples at selected stations for salinity, nutrients, and phytoplankton biomass/composition.
4. Collect biochemical measurements of zooplankton production rates.
5. Collect photochemical measurements of phytoplankton production rates.

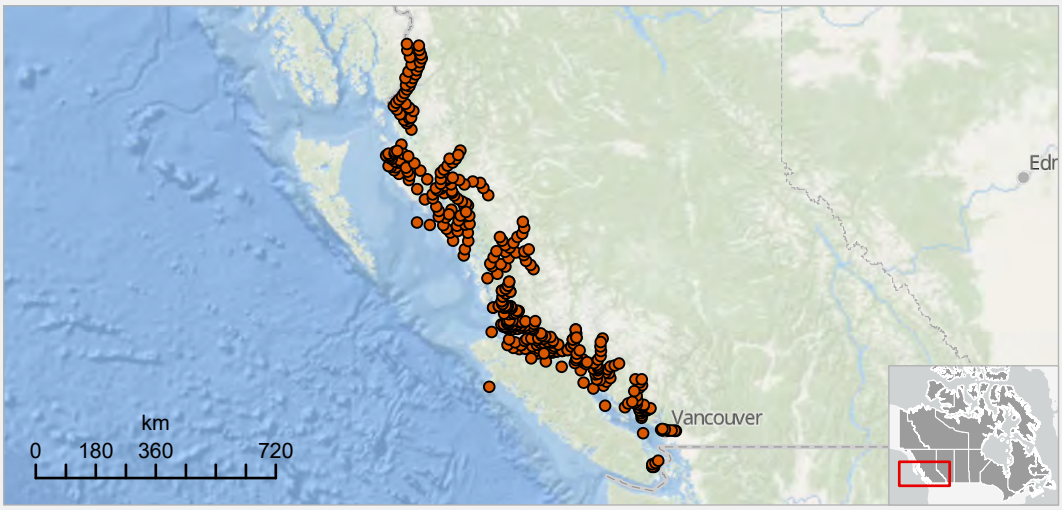
COLLABORATORS

Canadian Coast Guard, University of British Columbia, University of Victoria

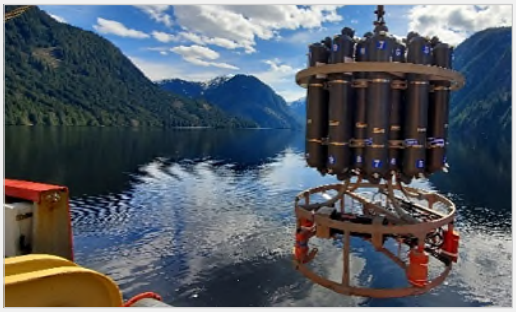
FOR MORE INFORMATION

State of the Pacific Ocean

Oceanographic monitoring
Coastal inlets of British Columbia



CCGS Vector.
© Fisheries and Oceans Canada



Deployment of sampling equipment.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDOEB_14

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1 to 14 and November 25 to December 8, 2026

START YEAR
2022

RECURRENCE
Annually - Ongoing

LOCATIONS
British Columbia mainland inlets, Hecate Strait, Queen Charlotte Sound; British Columbia mainland inlets, Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Saanich Inlet, west coast of Vancouver Island; Burrard Inlet

VESSEL
CCGS Vector

EMAIL
David.Spear@dfo-mpo.gc.ca

PHONE
236-268-0506

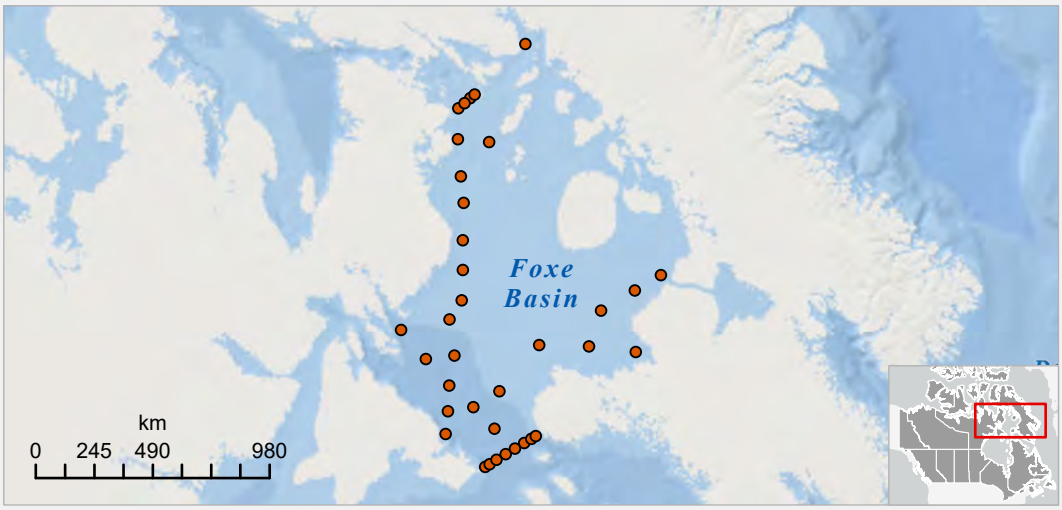
DESCRIPTION
Oceanographic monitoring of coastal British Columbia inlets provides baseline measurements of their physical and bio-geochemical conditions. This information helps monitor the effects of climate change and other anthropogenic impacts on British Columbia's coastal waters. The cruise will cover one section of the coast each year.

OBJECTIVES
1. Collect water samples for analysis of nutrients, oxygen, organic carbon and suspended particles.
2. Measure temperature and salinity to determine circulation and mixing patterns in the inlets.
3. Collect sediment cores to determine rates of sedimentation and burial of organic carbon.
4. Investigate long-term trends in primary production at the bottom of the food chain.
5. Conduct zooplankton sampling.

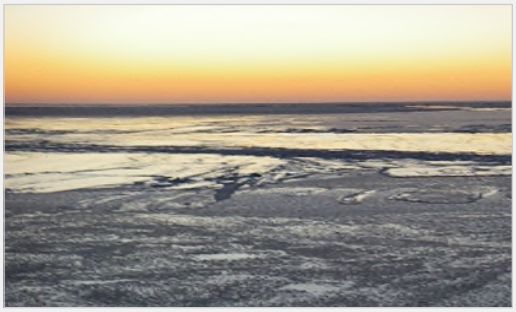
COLLABORATORS
Canadian Coast Guard

FOR MORE INFORMATION
Please contact David.Spear@dfo-mpo.gc.ca.

Sea-ice pump project
Foxe Basin



CCGS Henry Larsen.
© Fisheries and Oceans Canada



New ice formation in a polynya.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDOEB_16

CATEGORY
Hydrographic and oceanographic surveys

DATES
July 1 to October 31, 2026

START YEAR
2022

RECURRENCE
Annually for 4 years

LOCATIONS
Foxe Basin

VESSEL
CCGS Henry Larsen

EMAIL
Lisa.Miller@dfo-mpo.gc.ca

PHONE
431-330-0002

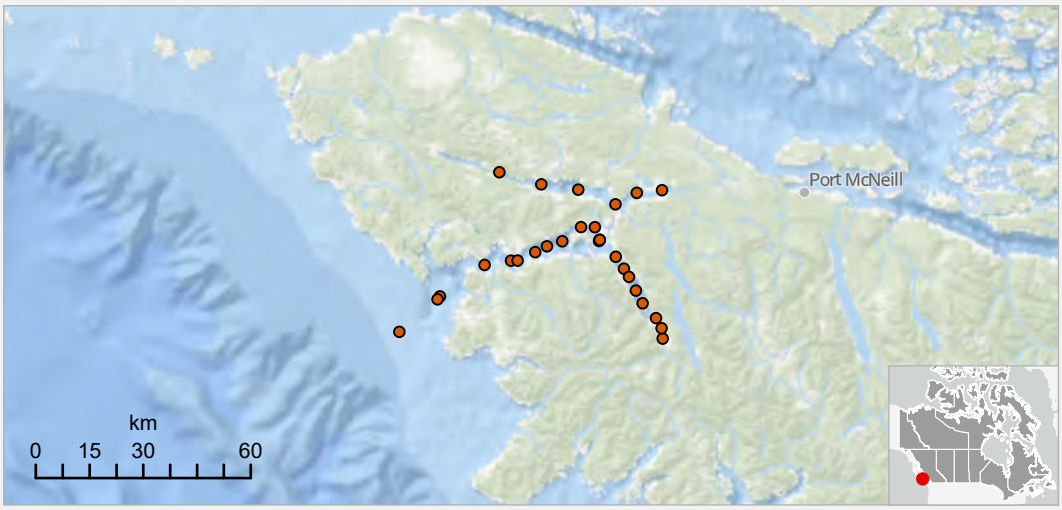
DESCRIPTION
Foxe Basin, a relatively enclosed basin with only one deep channel outlet, is one of three places in the Canadian Arctic where deep water forms and is an optimal site for observing the relationships between sea-ice formation, deep water formation, and carbon dioxide sequestration. The Foxe Basin Sea Ice Pump Project (FoxSIPP) is a 4-year study to explore these interactions and improve our capacity to predict how the polar oceanic carbon sink is changing with climate and sea-ice conditions.

OBJECTIVES
1. Retrieve a mooring instrumented with a full suite of physical and carbon sensors in the deepwater outflow channel in Foxe Basin.
2. Conduct a synoptic survey to note changes in surface water preconditioning for sea-ice and deepwater formation next winter.

COLLABORATORS
University of Alberta, University of British Columbia, University of Calgary, University of Manitoba

FOR MORE INFORMATION
Please contact Lisa.Miller@dfo-mpo.gc.ca.

Oceanographic monitoring
Quatsino Sound



UNIQUE ID
PAC_OSDOMAP_01

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1, 2026 to March 31, 2027

START YEAR
2021

RECURRENCE
Annually - Ongoing

LOCATIONS
Quatsino Sound

VESSEL
R/V Blackfish, CCGS John P. Tully

EMAIL
Laura.Bianucci@dfo-mpo.gc.ca

PHONE
250-363-6521

CCGS John P. Tully.
© Jackson Chu (Fisheries and Oceans Canada)

R/V Blackfish.
© Glenn Cooper (Fisheries and Oceans Canada)

DESCRIPTION

DFO is developing a numerical model to simulate physical and biogeochemical conditions in Quatsino Sound. This model will support analyses of seasonal trends, and the effects of climate change and extreme events on local communities and fisheries. A suite of oceanographic observations (e.g., temperature, salinity, currents, nutrients, oxygen, plankton, etc.) from moorings and CTD (conductivity, temperature, depth) casts will contribute to calibrating and validating the model.

OBJECTIVES

1. Support Quatsino First Nation to monitor temperature, salinity, and oxygen through monthly CTD casts.
2. Recover, service, and redeploy moorings with CTD sensors and acoustic doppler current profilers.

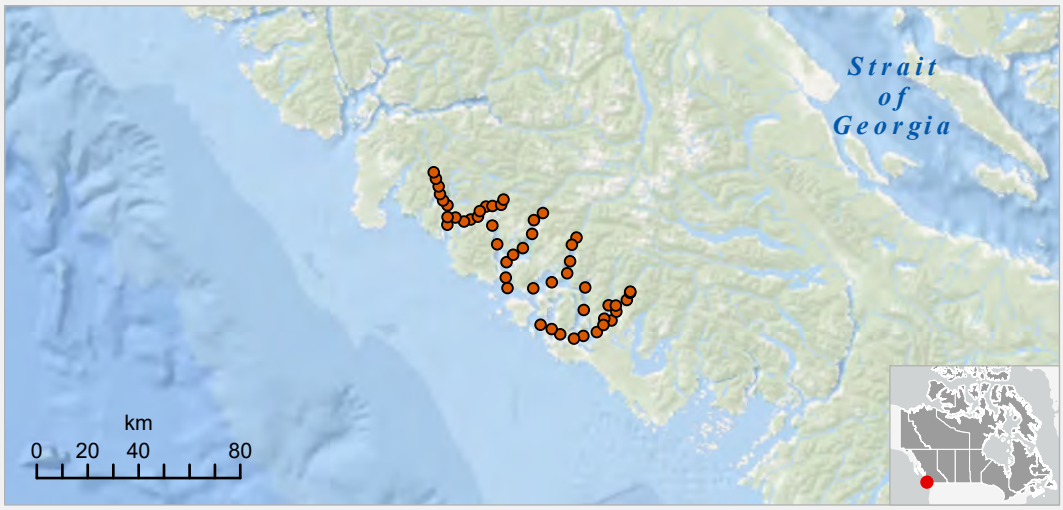
COLLABORATORS

Quatsino First Nation, Canadian Coast Guard, Environment and Climate Change Canada, Vancouver Island University, Mowi Canada West

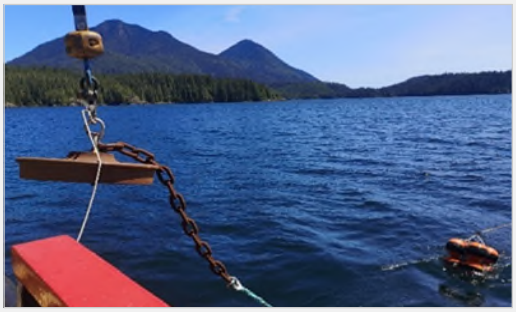
FOR MORE INFORMATION

Development of the Quatsino Sound physical ocean model (en anglais seulement)

Oceanographic monitoring
Clayoquot Sound



R/V Doug Anderson.
© Lucie Hannah (Fisheries and Oceans Canada)



Mooring deployment.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDOMAP_02

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1, 2026 to March 31, 2027

START YEAR
2023

RECURRENCE
Annually - Ongoing

LOCATIONS
Clayoquot Sound

VESSEL
Commercial vessel, Indigenous partner vessels

EMAIL
Laura.Bianucci@dfo-mpo.gc.ca

PHONE
250-363-6521

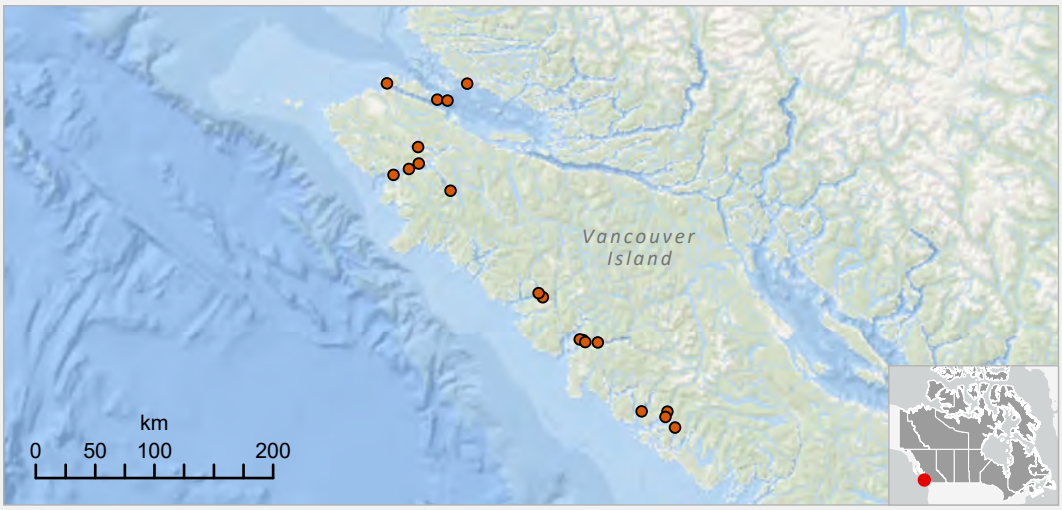
DESCRIPTION
Oceanographic moorings and monthly CTD (conductivity, temperature, depth) casts provide baseline measurements of physical and biogeochemical conditions in Clayoquot Sound. These data will help improve our understanding of ocean circulation patterns, seasonal changes (e.g., low oxygen conditions), and physical-biogeochemical differences between fjords in a changing climate.

OBJECTIVES
1. Train and support local Nations to monitor temperature, salinity, and dissolved oxygen via monthly casts.
2. Use moorings to measure ocean currents, temperature, and salinity time series at the mouth of Herbert Inlet.
3. Combine observations and modelling to improve understanding of physical and biogeochemical drivers of hypoxia over time.

COLLABORATORS
Ahousaht First Nation, Hesquiaht First Nation, Tla-o-qui-aht First Nation, Maaqutusiis Hahoulthee Stewardship Society, Uu-a-thluk Nuu-chah-nulth Fisheries, Canadian Coast Guard, Nature Trust of British Columbia

FOR MORE INFORMATION
Please contact Laura.Bianucci@dfo-mpo.gc.ca.

Coastal weather station monitoring
Vancouver Island



UNIQUE ID
PAC_OSDOMAP_03

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1, 2026 to March 31, 2027

START YEAR
2009

RECURRENCE
Annually - Ongoing

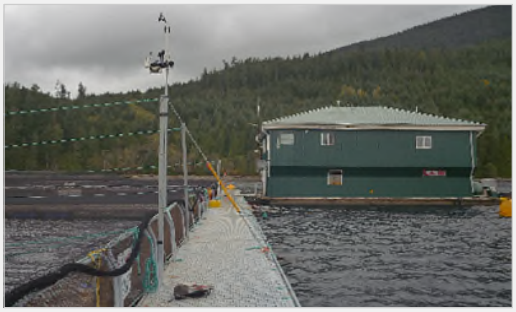
LOCATIONS
Queen Charlotte Strait, Quatsino Sound, Esperanza Inlet, Zeballos Inlet, Hecate Channel, Nootka Sound, Clayoquot Sound, Herbert Inlet, Bedwell Sound, Warn Bay

VESSEL
R/V Doug Anderson

EMAIL
Laura.Bianucci@dfo-mpo.gc.ca

PHONE
250-363-6521

Weather station at remote site.
© Glenn Cooper (Fisheries and Oceans Canada)



Weather station at fish farm.
© Glenn Cooper (Fisheries and Oceans Canada)

DESCRIPTION

Scientists use numerical models to simulate ocean circulation at major aquaculture sites in British Columbia. These models are important for assessing the interaction between aquaculture activities and the environment. DFO and collaborators maintain a network of weather stations that record spatial patterns of wind speed and direction. These wind data are an essential part of ocean circulation models; they inform simulations of surface layer movement and heat transfer. Weather stations typically require servicing one to two times per year.

OBJECTIVES

1. Maintain the weather stations installed at remote locations that require manual downloading of stored data.
2. Maintain the weather stations installed on fish farms that provide data via the internet.
3. Opportunistically measure salinity and temperature at select sites using a CTD (conductivity, temperature, depth) instrument.

COLLABORATORS

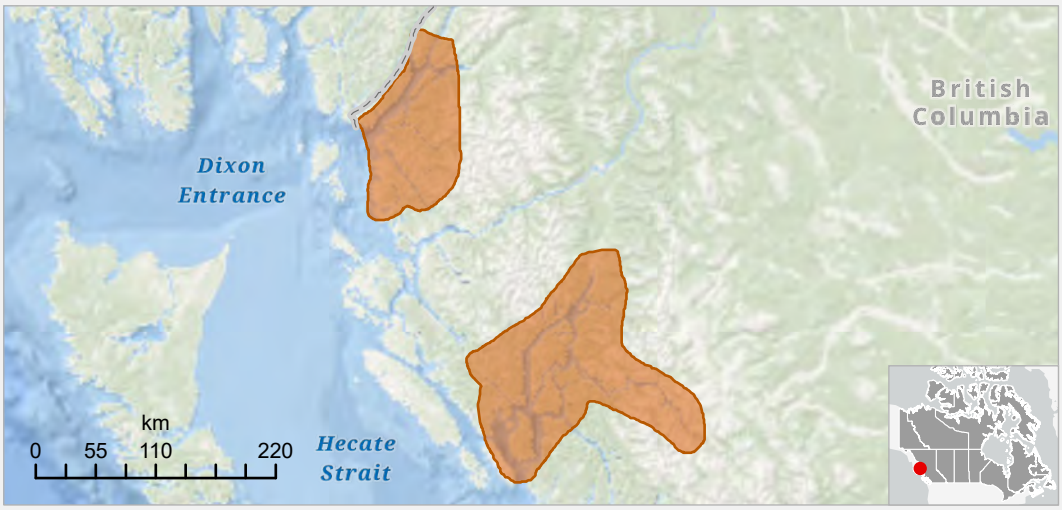
Cermaq Canada, Mowi Canada West

FOR MORE INFORMATION

Please contact Laura.Bianucci@dfo-mpo.gc.ca.

Drift prediction and nearshore modelling

North coast of British Columbia



R/V Doug Anderson.
© Lucie Hannah (Fisheries and Oceans Canada)

Weather monitoring station.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDOMAP_04

CATEGORY
Hydrographic and oceanographic surveys

DATES
June 1 to August 31, 2026

START YEAR
2018

RECURRENCE
Annually - Ongoing

LOCATIONS
Portland Inlet, Observatory Inlet, and adjacent inlets; Douglas Channel, Kitimat arm, and adjacent inlets

VESSEL
R/V Doug Anderson

EMAIL
Hauke.Blanken@dfo-mpo.gc.ca

PHONE
250-661-8478

DESCRIPTION

This initiative collects physical data on currents and water properties to validate operational ocean forecasting systems. These data support marine environmental emergency response, navigational safety, and related activities.

OBJECTIVES

1. Deploy and recover surface current tracking drifters.
2. Recover, service, and re-deploy sub-surface sensors to measure currents and water properties.
3. Recover, service, and redeploy a network of sensors to measure meteorological variables and inform modelling.

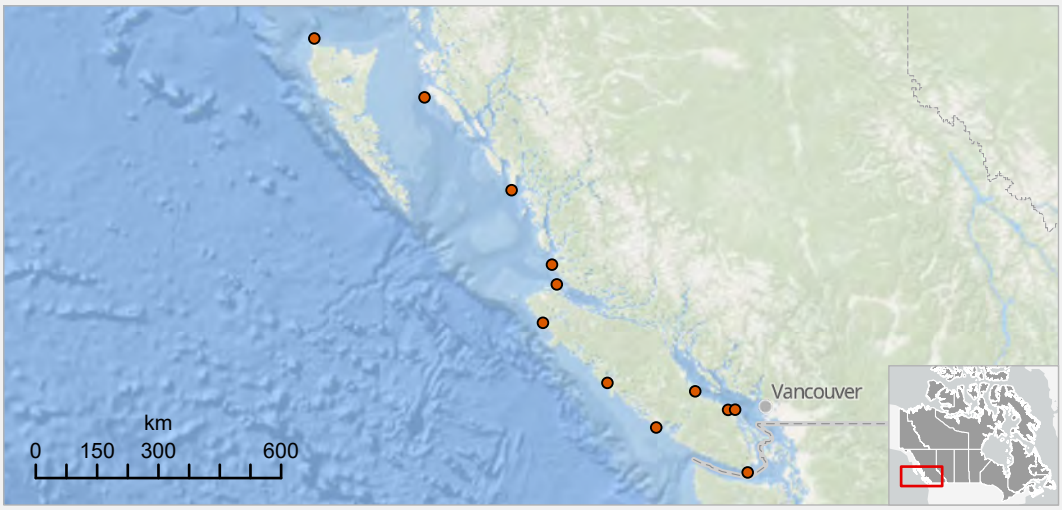
COLLABORATORS

Canadian Coast Guard, Environment and Climate Change Canada

FOR MORE INFORMATION

Oceans Protection Plan

BC Shore Station Oceanographic Program
Coastal British Columbia



Lightstation at Chrome Island.
© Fisheries and Oceans Canada

Sampling water at Amphitrite Point.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDROPES_01

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1, 2026 to March 31, 2027

START YEAR
1914

RECURRENCE
Annually - Ongoing

LOCATIONS
Haida Gwaii (Langara Point), Hecate Strait (Bonilla Island), Queen Charlotte Sound (McInnes Island, Egg Island); Queen Charlotte Strait (Pine Island), Strait of Georgia (Chrome Island, Departure Bay, Entrance Island), Juan de Fuca Strait (Race Rocks), west coast of Vancouver Island (Amphitrite Point, Nootka, Kains Island)

VESSEL
N/A

EMAIL
Jennifer.Jackson@dfo-mpo.gc.ca

PHONE
250-706-8549

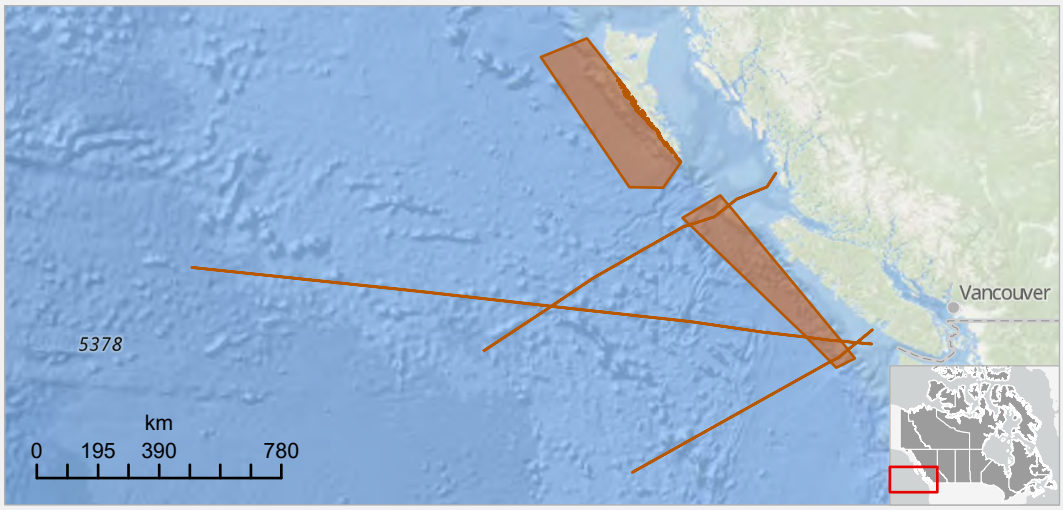
DESCRIPTION
The British Columbia Shore Station Oceanographic Program collects daily sea surface temperature and salinity data at 12 shore-based light stations on the coast of British Columbia. This is a long-term dataset with over 100 years of data from some stations. All shore stations are staffed by Fisheries and Oceans Canada, except Race Rocks and Amphitrite Point which are sampled by contracted observers.

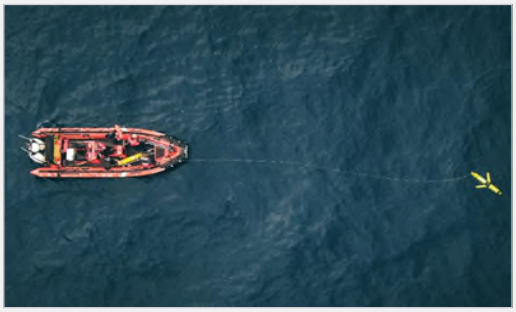
OBJECTIVES
1. Use the time series as an indicator of change, including warming associated with climate change in the physical environment.
2. Continue the time series of observations in support of fisheries and ecosystems management programs.
3. Acquire a continuous, automated, gap-free, high resolution (daily) time series of sea surface temperature and salinity.

COLLABORATORS
Canadian Coast Guard, Environment and Climate Change Canada, multiple coastal lightkeepers

FOR MORE INFORMATION
BC lightstation sea-surface temperature and salinity data

Underwater glider monitoring
Coastal British Columbia and offshore waters





Glider "Wall-e" being deployed.
© Shelton Du Preez (Fisheries and Oceans Canada)

Underwater glider "Mike" sampling.
© Hakai Magazine

UNIQUE ID
PAC_OSDROPES_02

CATEGORY
Hydrographic and oceanographic surveys

DATES
April 1, 2026 to March 31, 2027

START YEAR
2019

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Haida Gwaii, Queen Charlotte Sound, Tang.ɡwan – ḥačxwiqak – Tsigis Marine Protected Area (TḥT MPA); west coast of Vancouver Island (Tofino, Bamfield, continental shelf), Pacific Ocean offshore waters

VESSEL
N/A

EMAIL
Tetjana.Ross@dfo-mpo.gc.ca

PHONE
250-363-6438

DESCRIPTION

Fisheries and Oceans Canada uses underwater glider technology to collect continuous, high-resolution data for ocean monitoring, prediction and other research purposes. Gliders can be operated without vessels and in all weather conditions. Data are collected continuously along three glider monitoring lines in collaboration with the Canadian Pacific Robotic Ocean Observing Facility (C-PROOF) and are available in real-time.

OBJECTIVES

1. Improve understanding of understudied medium-scale flows and boundary currents along the coast of British Columbia.
2. Improve understanding of coastal currents and hypoxia in Queen Charlotte Sound.
3. Fill in gaps in oceanographic monitoring during the stormy winter season.

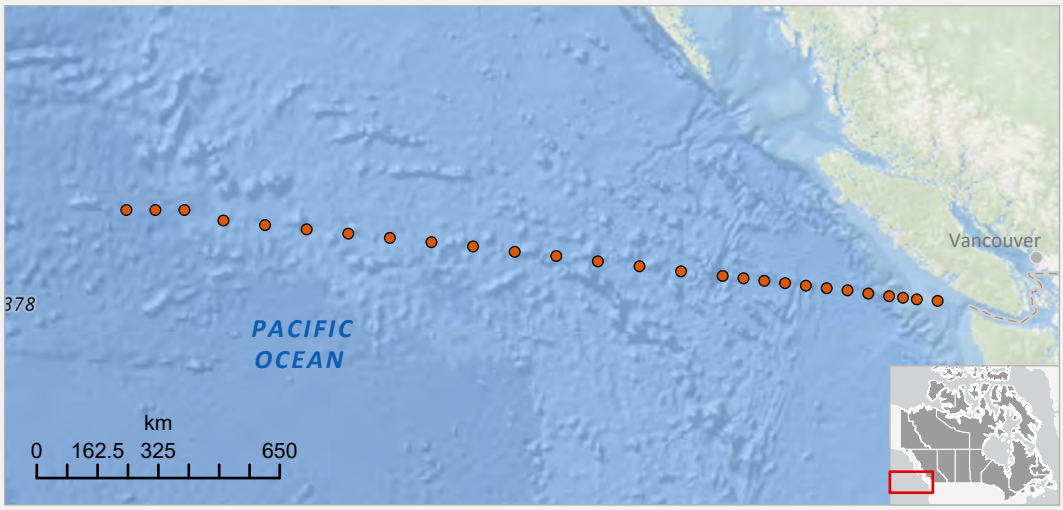
COLLABORATORS

Council of the Haida Nation, Canadian Coast Guard (Tofino), Parks Canada (Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site), University of British Columbia, University of Victoria, Hakai Institute

FOR MORE INFORMATION

Canadian Pacific Robotic Ocean Observing Facility (C-PROOF) (en anglais seulement)

Line P Monitoring Program
Offshore Pacific Ocean



CCGS John P. Tully.
© Jackson Chu (Fisheries and Oceans Canada)

Deployment of a deep water sampling rosette.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDROPES_03

CATEGORY
Hydrographic and oceanographic surveys

DATES
June 9 to 24 and September 1 to 17, 2026; January 19 to February 3, 2027

START YEAR
1956

RECURRENCE
Annually - Ongoing

LOCATIONS
Northeast Pacific Ocean, mainly offshore

VESSEL
CCGS John P. Tully, CCGS Sir Wilfrid Laurier

EMAIL
Marie.Robert@dfo-mpo.gc.ca

PHONE
250-363-6612

DESCRIPTION

In the 1950s scientists began oceanographic monitoring at a group of stations extending from coastal Vancouver Island to the offshore Pacific. Known as 'Line P,' this survey collects water property data and samples three times per year. Field staff use CTD (conductivity, temperature, depth) instruments, plankton-sampling 'Bongo' nets, free-drifting instruments (e.g., Argo floats), and underwater gliders to study conditions over its 1,425 km length. Line P is the longest oceanographic time series in the Northeast Pacific, and shows evidence of climate variability impacts on ocean productivity.

OBJECTIVES

1. Conduct CTD rosette casts to collect various physical water property data and samples for further chemical analysis.
2. Collect zooplankton and phytoplankton samples.
3. Deploy Argo floats to collect oceanographic data (e.g., temperature, salinity, oxygen, pH, nitrates, optics).
4. Deploy and/or recover gliders to collect oceanographic data (e.g., temperature, salinity, oxygen, pH, nitrates, optics).
5. Collect 'underway' measurements (e.g., salinity, temperature, chlorophyll fluorescence) as the survey vessel transits Line P.

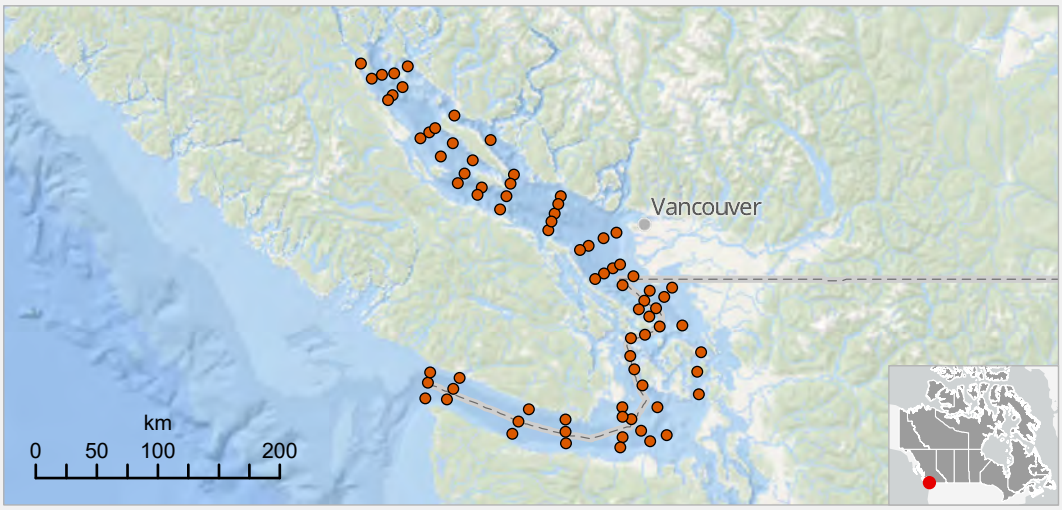
COLLABORATORS

Canadian Coast Guard, University of British Columbia, University of Victoria, Oregon State University (USA)

FOR MORE INFORMATION

Line P Website (Water Properties) (en anglais seulement)

Biophysical survey
Salish Sea



UNIQUE ID
PAC_OSDROPES_04

CATEGORY
Hydrographic and oceanographic surveys

DATES
June 13 to 20, October 7 to 14, December 16 to 23, 2026; March 24 to 30, 2027

START YEAR
1999

RECURRENCE
Annually - Ongoing

LOCATIONS
Strait of Georgia, Haro Strait, Juan de Fuca Strait; Boundary Bay

VESSEL
CCGS Vector

EMAIL
Jennifer.Jackson@dfo-mpo.gc.ca

PHONE
250-706-8549

CCGS Vector.
© Fisheries and Oceans Canada

Deployment of a deep water sampling rosette.
© Fisheries and Oceans Canada

DESCRIPTION
A water properties survey first introduced in 1999 and carried out three to four times per year to collect oceanographic data in the Strait of Georgia and Juan de Fuca Strait (zooplankton, nutrients, dissolved oxygen, dissolved inorganic carbon, temperature, and salinity).

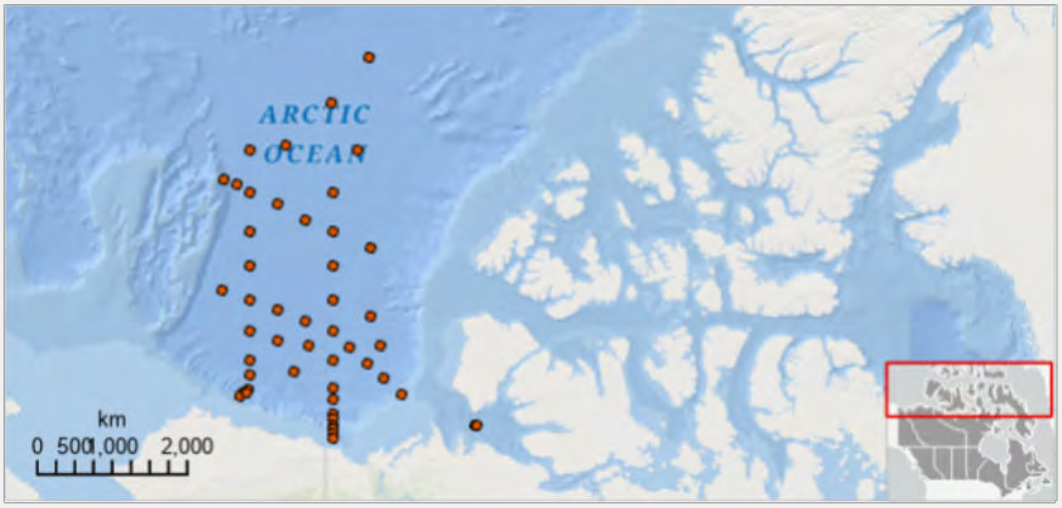
The information collected is used to monitor the seasonal cycle and year to year variability in the properties of the environment and their impact on the ecosystem, and to contribute to an archive of oceanographic information for the region upon which scientific advice can be based.

OBJECTIVES
1. Continue the time series of observations at over 80 stations.
2. Collect data opportunistically in Jervis Inlet, Toba Inlet, and Howe Sound.
3. Conduct long-term monitoring of the physical, chemical and biological characteristics of the region.
4. Examine changes to the water column in the context of climate change (warming, deoxygenation, ocean acidification).

COLLABORATORS
Canadian Coast Guard, University of British Columbia

FOR MORE INFORMATION
Please contact Jennifer.Jackson@dfo-mpo.gc.ca.

Joint ocean ice study
Beaufort Gyre



CCGS Louis S. St-Laurent.
© Fisheries and Oceans Canada

Deployment of a deep water sampling rosette.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDSOTO_01

CATEGORY
Hydrographic and oceanographic surveys

DATES
September 17 to October 22, 2026

START YEAR
2003

RECURRENCE
Annually - Ongoing

LOCATIONS
Beaufort Gyre, Canada Basin

VESSEL
CCGS Louis S. St-Laurent

EMAIL
Bill.Williams@dfo-mpo.gc.ca

PHONE
250-858-3699

DESCRIPTION
The Beaufort Gyre is one of the Arctic Ocean's primary circulation features, storing and transporting freshwater, sea ice, and heat across the Canadian Basin. The Joint Ocean Ice Study Program collects biogeochemical water samples and deploys moorings and ice buoys to monitor the response of the Beaufort Gyre to climate change.

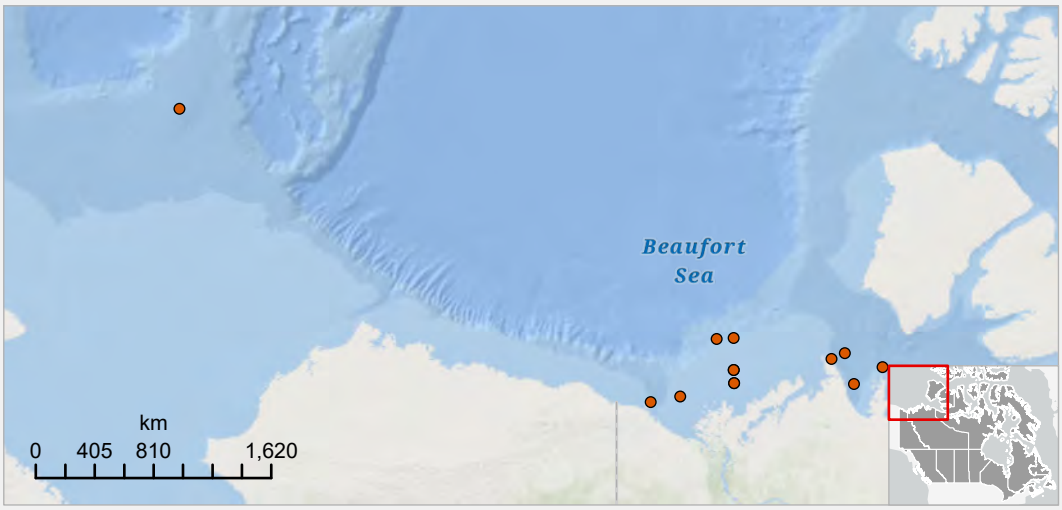
OBJECTIVES
1. Monitor ocean acidification due to sea-ice retreat and melt.
2. Monitor the wind-forced freshwater accumulation in the gyre from Arctic rivers sea ice melt.
3. Monitor the changing contributions of Pacific- and Atlantic-origin water in the gyre.
4. Monitor the increasing summertime melt and loss of old ice.

COLLABORATORS
Canadian Coast Guard, Japan Agency for Marine-Earth Science and Technology, United States National Science Foundation, University of British Columbia, Concordia University, ETH Zürich (Switzerland), Kitami Institute of Technology (Japan), Université Laval, University of Montana (USA), Oregon State University (USA), Tokyo University of Marine Science and Technology (Japan)

FOR MORE INFORMATION
Beaufort Gyre exploration project (en anglais seulement)

Beaufort Shelf moored observatory

Canadian polar shelf



UNIQUE ID
PAC_OSDSOTO_02

CATEGORY
Hydrographic and oceanographic surveys

DATES
September 29 to October 15, 2026

START YEAR
1990

RECURRENCE
Annually - Ongoing

CCGS Sir Wilfrid Laurier.
© Fisheries and Oceans Canada

Crew retrieves ocean mooring among ice floes.
© Fisheries and Oceans Canada

LOCATIONS
Canadian Beaufort Shelf, Amundsen Gulf

VESSEL
CCGS Sir Wilfrid Laurier

EMAIL
Bill.Williams@dfo-mpo.gc.ca

PHONE
250-858-3699

DESCRIPTION

An initiative to document conditions related to sea ice, waves and storm surge that are hazardous to coastal infrastructure, ships and offshore structures in the Arctic Ocean; as well as the progressive impacts of climate change on the marine Arctic.

OBJECTIVES

1. Recover and service recording instruments from 10 to 20 submerged moorings, retrieve data, and redeploy the observing array.
2. Collect marine mammal sound recordings, oceanographic measurements, and contaminant samples (water and airborne).
3. Map the seabed.
4. Establish recurrence interval estimates of rare extreme marine hazards of high severity.
5. Establish reliable projections of the marine Arctic future state under the influence of climate change.

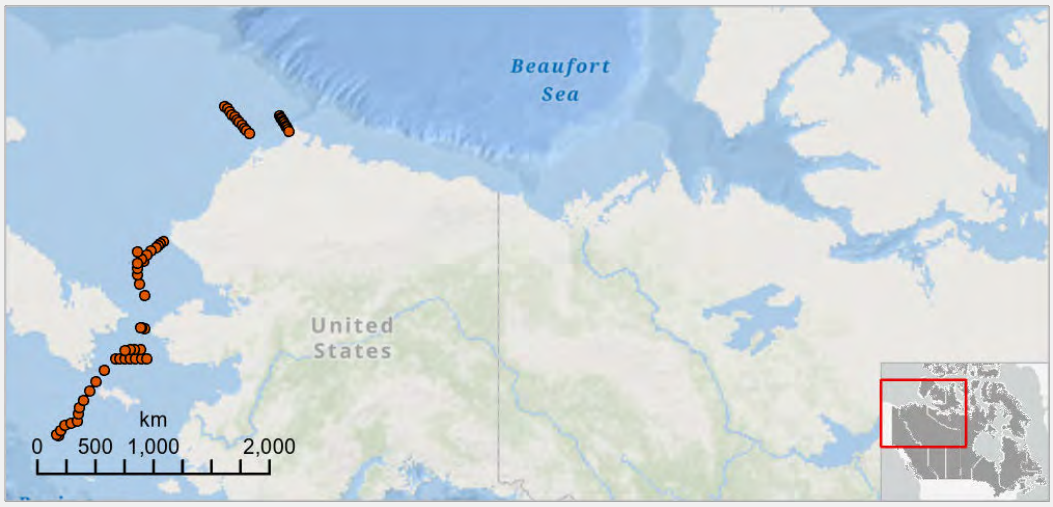
COLLABORATORS

Inuit communities via the Inuvialuit Environmental Impact Screening Committee, Canadian Coast Guard, Environment and Climate Change Canada, National Oceanic and Atmospheric Administration (USA)

FOR MORE INFORMATION

Please contact Bill.Williams@dfo-mpo.gc.ca.

Ocean and benthos monitoring
Bering and Chukchi Seas



CCGS Sir Wilfrid Laurier.
© Fisheries and Oceans Canada

A Chukchi Sea walrus (Odobenus rosmarus).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_OSDSOTO_05

CATEGORY
Hydrographic and oceanographic surveys

DATES
July 16 to 27, 2026

START YEAR
1998

RECURRENCE
Annually - Ongoing

LOCATIONS
Chukchi Sea, Bering Sea

VESSEL
CCGS Sir Wilfrid Laurier

EMAIL
Bill.Williams@dfo-mpo.gc.ca

PHONE
250-858-3699

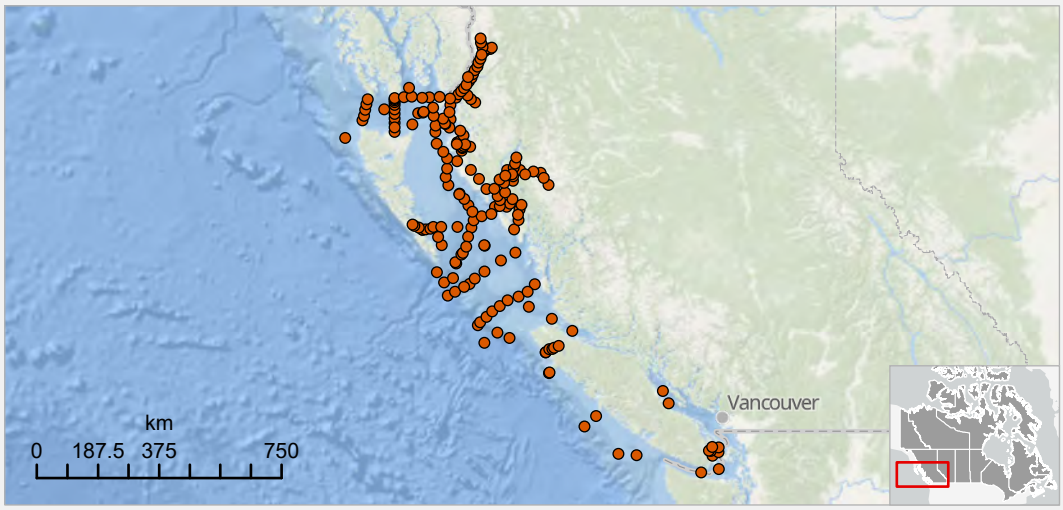
DESCRIPTION
The Distributed Biological Observatory (DBO) program is an international effort studying impacts of climate change and variability on ecosystems of the sub-arctic and Arctic. The expedition collects oceanographic, geochemical, and biological data to monitor ocean conditions and the distribution and abundance of benthic organisms, which are a critical food source for walrus, grey whales, and eider ducks.

OBJECTIVES
1. Monitor the impacts of ocean warming and sea-ice retreat on benthic organisms.
2. Monitor the Bering Sea's winter-formed "cold pool" that forms the southern boundary of the Arctic ecosystem.
3. Monitor the northward flow of nutrient-rich Pacific Ocean water, which plays a critical role in Canadian Arctic ecology.
4. Monitor the northward transport and potential establishment of Pacific plankton into the Arctic Ocean.

COLLABORATORS
Canadian Coast Guard, National Oceanic and Atmospheric Administration (USA), Fish and Wildlife Service (USA), Clark University (USA), University of Maryland (USA), University of Victoria

FOR MORE INFORMATION
Distributed Biological Observatory (en anglais seulement)

Deployment and recovery of oceanographic moorings
Coastal British Columbia



UNIQUE ID
PAC_OSDSOTO_10

CATEGORY
Hydrographic and oceanographic surveys

DATES
August 18 to 31, 2026

START YEAR
1976

RECURRENCE
Annually - Ongoing

LOCATIONS
Haida Gwaii, Dixon Entrance, Portland Inlet, Observatory Inlet, Hastings Arm, Chatham Sound, Hecate Strait, Caamaño Sound, Douglas Channel, Ursula Channel, Devastation Channel, Gardner Canal, Surf Inlet, Laredo Inlet, Queen Charlotte Sound; Scott Islands Marine National Wildlife Area, Queen Charlotte Strait, Strait of Georgia, Southern Gulf Islands, Saanich Inlet, Juan de Fuca Strait, west coast of Vancouver Island, Quatsino Sound

VESSEL
CCGS John P. Tully

EMAIL
David.Spear@dfo-mpo.gc.ca

PHONE
250-363-6581

CCGS John P. Tully.
© Jackson Chu (Fisheries and Oceans Canada)

Mooring preparations.
© Fisheries and Oceans Canada

DESCRIPTION
This cruise is responsible for the deployment, recovery, and servicing of oceanographic moorings. These moorings record tides, currents, water properties, and ambient noise in support of long-term monitoring programs.

OBJECTIVES
1. Deploy, recover, and service oceanographic moorings.
2. Conduct CTD (conductivity, temperature, and depth) and biogeochemical sampling.
3. Conduct sediment sampling.

COLLABORATORS
Council of the Haida Nation, Canadian Coast Guard, Environment and Climate Change Canada, Parks Canada

FOR MORE INFORMATION
State of the Pacific Ocean

Oceanographic exploration
Kitikmeot Sea Moorings

UNIQUE ID
PAC_OSDSOTO_21

CATEGORY
Hydrographic and oceanographic surveys

DATES
September 19 to 29, 2026

START YEAR
2022

RECURRENCE
Annually - Ongoing

CCGS Sir Wilfrid Laurier.
© Fisheries and Oceans Canada

Mooring deployment.
© Fisheries and Oceans Canada

LOCATIONS
Kitikmeot Sea

VESSEL
CCGS Sir Wilfrid Laurier

EMAIL
Bill.Williams@dfo-mpo.gc.ca

PHONE
250-858-3699

DESCRIPTION

The Kitikmeot Sea Science Study deploys oceanographic moorings from the CCGS Sir Wilfrid Laurier to evaluate wind-driven seasonal and interannual oceanographic processes in the Kitikmeot Sea in the Northwest Passage.

OBJECTIVES

1. Evaluate large-scale circulation and nutrient balances in the Kitikmeot Sea.
2. Evaluate tidal-mixing of ocean nutrients in narrow straits with rapid tides.
3. Explore the remote and little-studied Bathurst Inlet.
4. Investigate seasonal variation of oceans and rivers through year-round moorings and Community Based Monitoring.

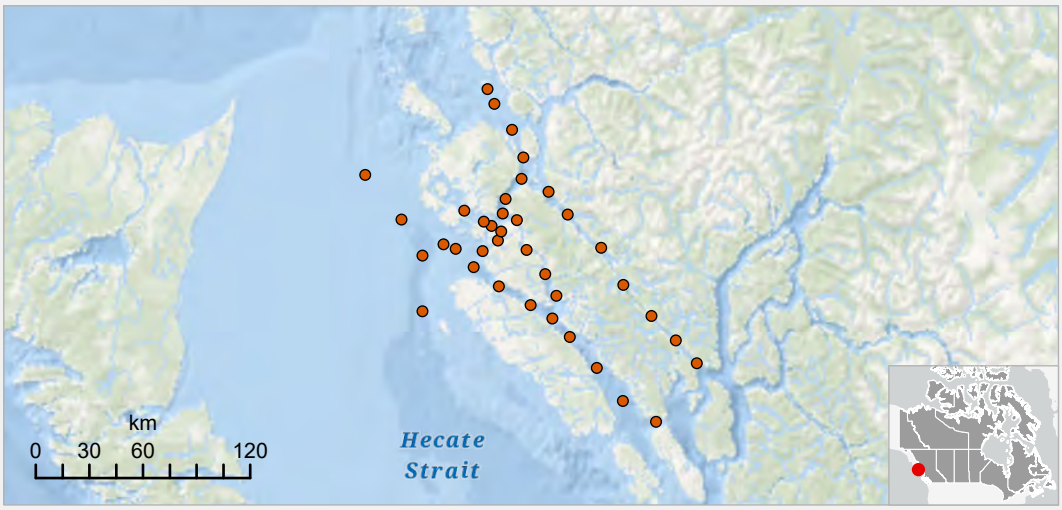
COLLABORATORS

Canadian Coast Guard, University of Alaska Fairbanks (USA), The Arctic University of Norway, University of Manitoba

FOR MORE INFORMATION

Please contact Bill.Williams@dfo-mpo.gc.ca.

Oceanographic assessment of water exchanges
North Coast of British Columbia



UNIQUE ID
PAC_OSDSOTO_22

CATEGORY
Hydrographic and oceanographic surveys

DATES
December 8 to 16, 2026

START YEAR
2025

RECURRENCE
Annually for 2 years

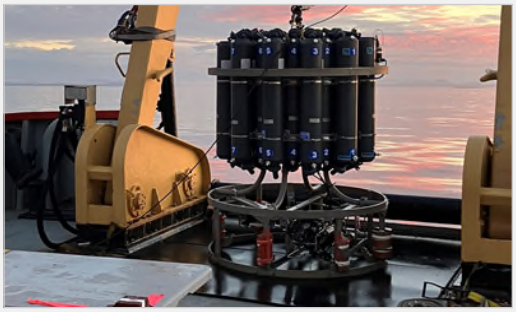
LOCATIONS
Dixon Entrance, Hecate Strait, Chatham Sound, Ogden Channel, Petrel Channel, Grenville Channel, Kitkatla Channel, Beaver Passage, Browning Entrance, Principe Channel, Nepean Sound

VESSEL
CCGS Vector

EMAIL
Cynthia.Bluteau@dfo-mpo.gc.ca

PHONE
778-533-8659

CCGS Vector.
© Fisheries and Oceans Canada



CTD rosette equipment.
© Fisheries and Oceans Canada

DESCRIPTION

This survey will collect conductivity, temperature, and depth (CTD) profiles and water samples to address knowledge gaps about the water exchanges around the Kitkatla Inlet Area of Interest (AOI), which is under consideration for long-term protection as a Marine Protected Area (MPA) under the Oceans Act. The observations include subsurface temperature, salinity, nutrients, chlorophyll A and dissolved oxygen. This work will assist with quantifying the AOI's connectivity with adjoining waterways, and with inferring water properties across the MPA network.

OBJECTIVES

1. Collect subsurface CTD and water samples to measure temperature, salinity, nutrients and dissolved oxygen.
2. Collect surface water to characterize microplastics concentrations.
3. Identify and characterize water sources entering the AOI during different seasons.

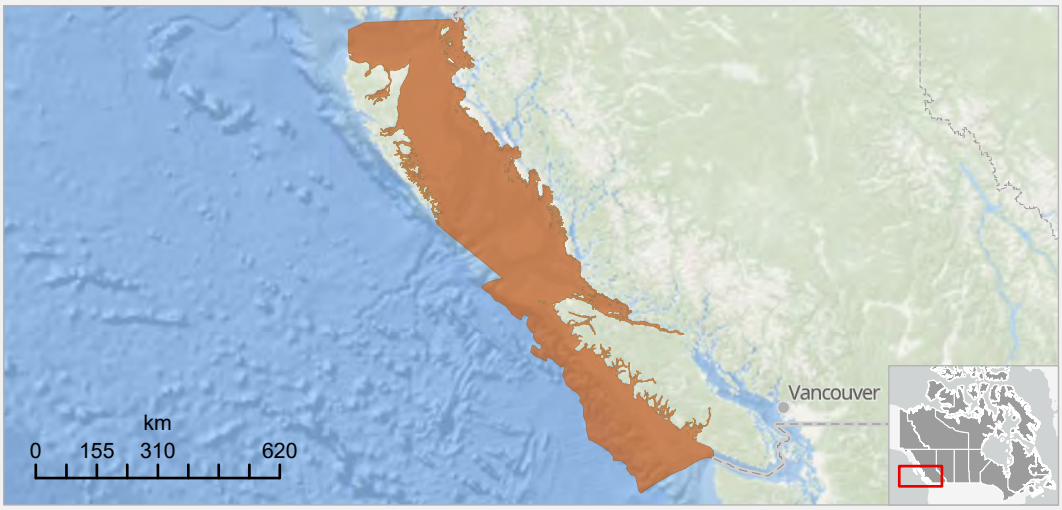
COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Please contact Cynthia.Bluteau@dfo-mpo.gc.ca.

Northern resident killer whale annual census
Coastal British Columbia



R/V Merlin.
© Fisheries and Oceans Canada

Recovering acoustic recorder.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_01

CATEGORY
Population and ecosystem assessments

DATES
May 1 to August 31, 2026

START YEAR
1973

RECURRENCE
Annually - Ongoing

LOCATIONS
Dixon Entrance, Chatham Sound, north and east coast of Haida Gwaii, Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; North coast of Vancouver Island, Queen Charlotte Strait, Johnstone Strait

VESSEL
M/V Clupea, R/V Merlin

EMAIL
Thomas.Doniol-Valcroze@dfo-mpo.gc.ca

PHONE
250-739-2168

DESCRIPTION

The Cetacean Research Program has been conducting an annual census of the Northern Resident killer whale (NRKW) population since 1973, making it one of the longest time series of data for any marine mammal. This information is important to monitor changes in abundance, population structure, and life-history parameters.

OBJECTIVES

1. Using visual and acoustic methods, locate NRKW and collect photo identifications of all members of group present.
2. Deploy and recover acoustic devices.
3. Collect prey samples from sharing events during encounters where whales are foraging.
4. Document each animal in the population.
5. Document new offspring since the previous year's census, and identify the mother.

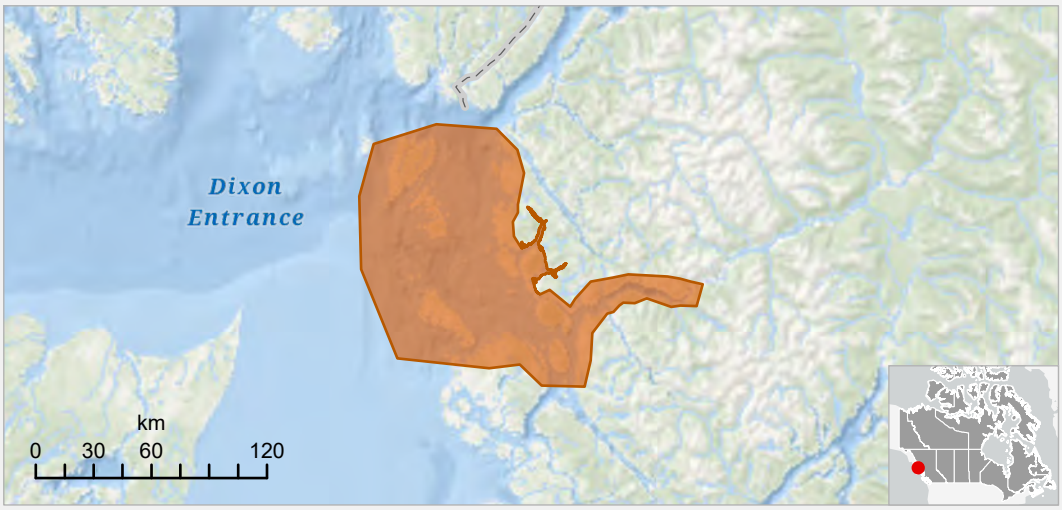
COLLABORATORS

Gitga'at First Nation, Canadian Coast Guard, Parks Canada, Bay Cetology, CetaceaLab, OrcaLab, North Coast Cetacean Society, Ocean Wise Conservation Association, Coastal and Ocean Resources

FOR MORE INFORMATION

Please contact Thomas.Doniol-Valcroze@dfo-mpo.gc.ca.

Coastal Environmental Baseline Program
Port of Prince Rupert



China rockfish (Sebastes nebulosus).
© Olivia Rhodes (Fisheries and Oceans Canada)

Water sampling in Chatham Sound.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_02

CATEGORY
Population and ecosystem assessments

DATES
April 1, 2026 to March 31, 2027

START YEAR
2017

RECURRENCE
Annually for 12 years

LOCATIONS
Prince Rupert Harbour, Chatham Sound

VESSEL
N/A

EMAIL
Paul.Covert@dfo-mpo.gc.ca

PHONE
250-363-6765

DESCRIPTION
The Coastal Environmental Baseline Program aims to collect comprehensive data about the marine ecosystem for the Port of Prince Rupert, for example, water circulation patterns, sub-tidal habitat and species distribution, and phytoplankton community composition and distribution.

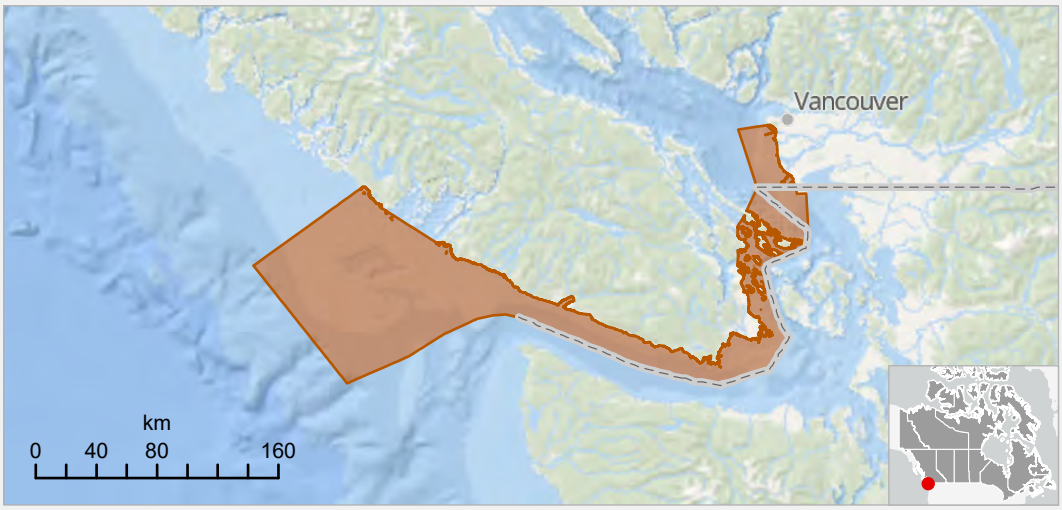
OBJECTIVES
1. Characterize weekly, monthly, and seasonal ecosystem changes within Chatham Sound and Port of Prince Rupert.
2. Provide high-quality, open data to all Canadians to inform science based decision making.
3. Characterize diversity and percent cover of marine macroalgae.
4. Characterize inter-tidal and sub-tidal habitats.

COLLABORATORS
Kitselas First Nation, Kitsumkalum First Nation, Lax Kw'alaams Band, Metlakatla First Nation

FOR MORE INFORMATION
Coastal Environmental Baseline Program

Southern resident killer whale physiology and habitat use

South coast of British Columbia



UNIQUE ID
PAC_ESDAEMMS_06

CATEGORY
Population and ecosystem assessments

DATES
June 1 to September 30, 2026, and opportunistically throughout the year

START YEAR
2018

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Vancouver Island (La Pérouse Bank, Swiftsure Bank), Juan de Fuca Strait, Strait of Georgia

VESSEL
R/V Great Northern, R/V Charley C.

EMAIL
Sheila.Thornton@dfo-mpo.gc.ca

PHONE
604-364-5917

Zodiacs.
© Fisheries and Oceans Canada

Field crew for SRKW habitat use project.
© Fisheries and Oceans Canada

DESCRIPTION

Behavioural assessment of southern resident killer whales (SRKW) to improve understanding of habitat use patterns and identify key foraging areas. Prey sampling, fecal sampling, breath sampling, and drone imaging inform foraging efficiency, prey selection and physiological parameters.

OBJECTIVES

1. Use visual and acoustic methods to locate SRKW, identify behavioural state and photo-identify individuals encountered.
2. Collect prey samples from sharing events during encounters where whales are foraging.
3. Collect information on vessel presence in the vicinity of whales.
4. Collect fecal and breath samples from SRKW.
5. Collect overhead images of the whales using drones.

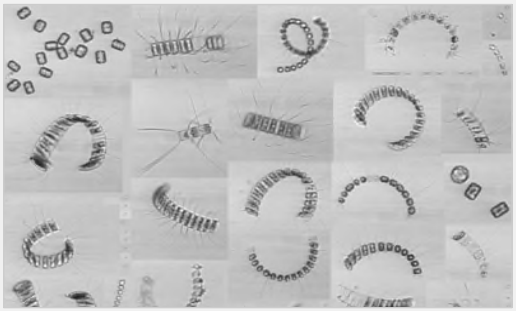
COLLABORATORS

National Oceanic and Atmospheric Administration (USA)

FOR MORE INFORMATION

Please contact Sheila.Thornton@dfo-mpo.gc.ca.

Coastal Environmental Baseline Program
Port of Vancouver



Microalgae from the Port of Vancouver.
© Paul Covert (Fisheries and Oceans Canada)

Conducting beach surveys.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_07

CATEGORY
Population and ecosystem assessments

DATES
April 1, 2026 to March 31, 2027

START YEAR
2017

RECURRENCE
Annually for 12 years

LOCATIONS
Eastern Strait of Georgia; Howe Sound, Port of Vancouver, səlilw̓ət (Burrard Inlet and Indian Arm), Fraser River

VESSEL
N/A

EMAIL
Paul.Covert@dfo-mpo.gc.ca

PHONE
250-363-6765

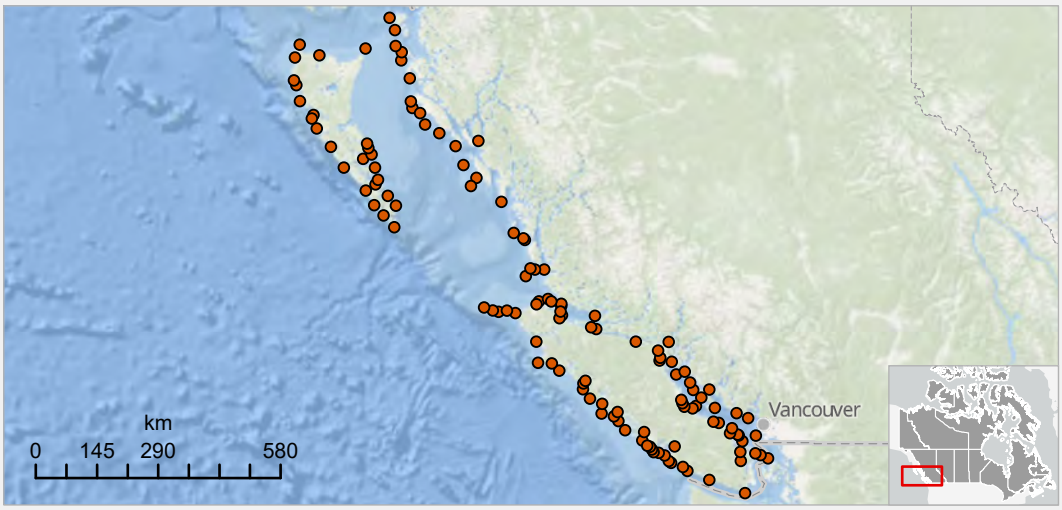
DESCRIPTION
The Coastal Environmental Baseline Program aims to collect comprehensive data about the marine ecosystem for the Port of Vancouver, for example, rockfish distribution, phytoplankton abundance, and seasonal habitat variability.

OBJECTIVES
1. Characterize weekly, monthly, and seasonal ecosystem changes within Burrard Inlet and the Strait of Georgia.
2. Provide high-quality, open data to all Canadians to inform science based decision making.
3. Characterize diversity and percent cover of marine micro- and macroalgae.
4. Characterize inter-tidal and sub-tidal habitats.
5. Record abundance and distribution of invertebrate and vertebrate marine biota.

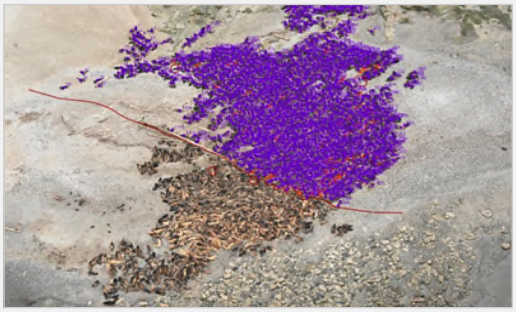
COLLABORATORS
səlilwətaɬ (Tsleil-Waututh Nation), Tsawwassen First Nation, We Are Water, Ocean Wise Conservation Association

FOR MORE INFORMATION
Coastal Environmental Baseline Program

Steller sea lion aerial survey
Coastal British Columbia



Steller sea lion (Eumetopias jubatus).
© Fisheries and Oceans Canada



Digital counting of sea lions on a haul out.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_08

CATEGORY
Population and ecosystem assessments

DATES
June 25 to July 15, 2026

START YEAR
1971

RECURRENCE
Every 5 years

LOCATIONS
Dixon Entrance, Haida Gwaii, Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; Triangle Island, coastal Vancouver Island, Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Juan de Fuca Strait, Howe Sound

VESSEL
N/A

EMAIL
Strahan.Tucker@dfo-mpo.gc.ca

PHONE
250-616-2867

DESCRIPTION
Aerial survey to estimate the abundance of Steller sea lions in British Columbia waters. Data will contribute to long-term monitoring of abundance and distribution trends; support potential pressures on fisheries resources; and support marine conservation and impact assessment initiatives.

OBJECTIVES
1. Survey all known rookeries and haul outs via aircraft.
2. Opportunistically scan the shoreline and waters for sea lions between known haul out sites.
3. Photograph individuals and groups of sea lions with a hand held camera.
4. Count sea lions from photographs and compile a final total estimate of abundance.

COLLABORATORS
N/A

FOR MORE INFORMATION
Steller sea lion abundance in Canadian Pacific waters

Large whales assessment surveys
Haida Gwaii and north coast of British Columbia

CCGS John P. Tully.
© Jackson Chu (Fisheries and Oceans Canada)

Cetacean observers at work.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_09

CATEGORY
Population and ecosystem assessments

DATES
June 24 to July 06, 2026

START YEAR
2002

RECURRENCE
Annually - Ongoing

LOCATIONS
Dixon Entrance, Haida Gwaii (including coastal waters), Chatham Sound, Hecate Strait

VESSEL
CCGS John P. Tully

EMAIL
Thomas.Doniol-Valcroze@dfo-mpo.gc.ca

PHONE
250-739-2168

DESCRIPTION

The Cetacean Research Program assesses population abundance and critical habitat of species-at-risk, including several species of large whales. These dedicated surveys, conducted since 2002, help to improve understanding of the distribution of cetaceans and their use of habitats, such as sea mounts and troughs.

OBJECTIVES

1. Obtain distribution and abundance data for cetacean species.
2. Deploy and recover acoustic recorders.
3. Increase the number of confirmed sightings of sei whales and North Pacific right whales.
4. Obtain photo identification data on several species (e.g., killer whales, fin whales, North Pacific right whales).
5. Obtain biopsy samples from several species (e.g., killer whales, fin whales, North Pacific right whales).

COLLABORATORS

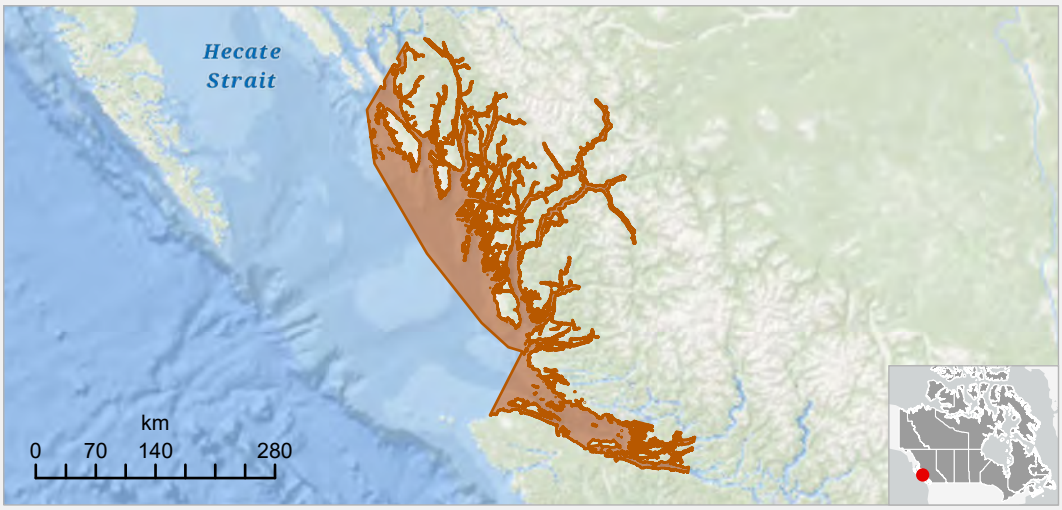
Council of the Haida Nation, Canadian Coast Guard, Parks Canada (Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site)

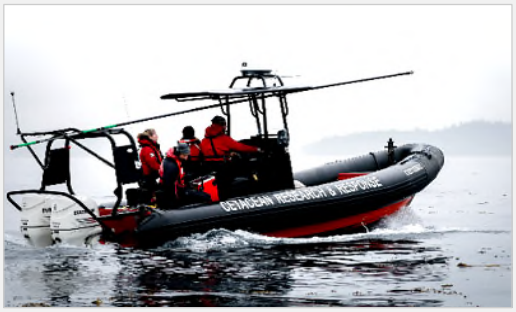
FOR MORE INFORMATION

Please contact Thomas.Doniol-Valcroze@dfo-mpo.gc.ca.

Northern resident and Bigg's killer whale physiology and body condition

Central and south coast of British Columbia





R/V Merlin.
© Fisheries and Oceans Canada

Bigg's killer whale (Orcinus orca).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_10

CATEGORY
Population and ecosystem assessments

DATES
June 1 to September 30, 2026 and opportunistically throughout the year

START YEAR
2018

RECURRENCE
Annually - Ongoing

LOCATIONS
Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; Queen Charlotte Strait, Johnstone Strait

VESSEL
R/V Merlin, R/V Great Northern, R/V Charley C.

EMAIL
Sheila.Thornton@dfo-mpo.gc.ca

PHONE
604-364-5917

DESCRIPTION

Physiological assessment of individual northern resident and Bigg's killer whales to improve our understanding of physiological parameters, and how they relate to nutritional and reproductive state, and body condition. Prey sampling, fecal and breath sampling, biopsies and drone imaging inform foraging efficiency, prey selection and define physiological parameters of whales.

OBJECTIVES

1. Collect prey samples from sharing events during encounters where whales are foraging.
2. Collect breath, fecal, and biopsy samples from individuals.
3. Collect data on body condition from drone imaging to correlate with physiological parameters.
4. Build upon our understanding of foraging behaviour from previous tagging studies.

COLLABORATORS

National Oceanic and Atmospheric Administration (USA)

FOR MORE INFORMATION

Please contact Sheila.Thornton@dfo-mpo.gc.ca.

Steller sea lion haulout monitoring
Seabird Rocks

Seabird Rocks.
© Fisheries and Oceans Canada

Steller sea lion (Eumetopias jubatus) haulout.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_16

CATEGORY
Population and ecosystem assessments

DATES
April 1, 2026 to March 31, 2027

START YEAR
2022

RECURRENCE
Annually - Ongoing

LOCATIONS
Seabird Rocks (Pacific Rim National Park Reserve)

VESSEL
N/A

EMAIL
Strahan.Tucker@dfo-mpo.gc.ca

PHONE
250-616-2867

DESCRIPTION
A multi-year deployment of autonomous cameras in the Pacific Rim National Park Reserve will collect photos to assess the daily variation in Steller sea lion (SSL) haulout numbers, and identify branded animals in support of the ongoing National Oceanic and Atmospheric Administration-led SSL program. Photos will also capture California sea lion seasonal presence and abundance, gauge species interactions, and test/refine computer-automated counting software to differentiate between sea lion species.

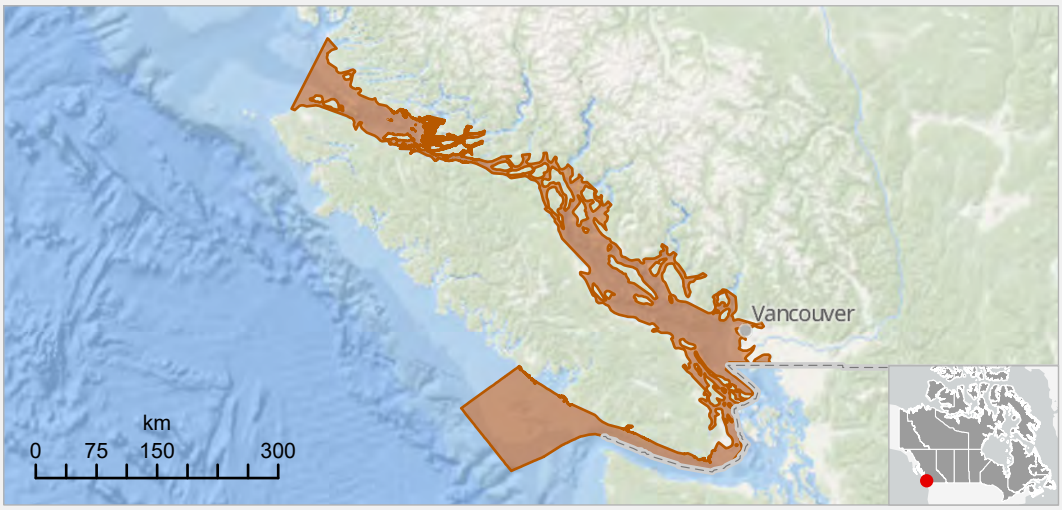
OBJECTIVES
1. Service cameras and swap memory cards one year after deployment.
2. Undertake image analysis.
3. Obtain daily counts of Steller and California sea lions.
4. Generate a list of branded animals.

COLLABORATORS
Parks Canada, North Pacific Wildlife Consulting (USA)

FOR MORE INFORMATION
Please contact Strahan.Tucker@dfo-mpo.gc.ca.

North Pacific humpback whale physiology and metabolic rate

South coast of British Columbia



Drone launching from Zodiac.
© Fisheries and Oceans Canada

Humpback whale (Megaptera novaeangliae).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_17

CATEGORY
Population and ecosystem assessments

DATES
June 1 to September 30, 2026 and opportunistically throughout the year

START YEAR
2022

RECURRENCE
Annually - Ongoing

LOCATIONS
Queen Charlotte Sound; Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island, Swiftsure Bank, La Pérouse Bank, coastal inlets of British Columbia; Howe Sound, Boundary Bay, Burrard Inlet

VESSEL
R/V Merlin, R/V Great Northern, R/V Charley C.

EMAIL
Sheila.Thornton@dfo-mpo.gc.ca

PHONE
604-364-5917

DESCRIPTION

This research measures physiological biomarkers, body condition and metabolic rate of humpback whales (Megaptera novaeangliae) to improve understanding of physiological processes, and how they relate to nutritional and reproductive states of humpback whales. Breath samples are collected with drones, biopsies with a crossbow, fecal samples with fine-mesh nets, and diving pattern data with suction cup tags. These samples allow for a comprehensive assessment of metabolic needs and reproductive state of the whales.

OBJECTIVES

1. Collect breath, fecal, and biopsy samples from individuals for a comprehensive assessment of physiological parameters.
2. Collect body and breath photos from a drone to evaluate body condition.
3. Use tag data to estimate metabolic rate and energy needs.

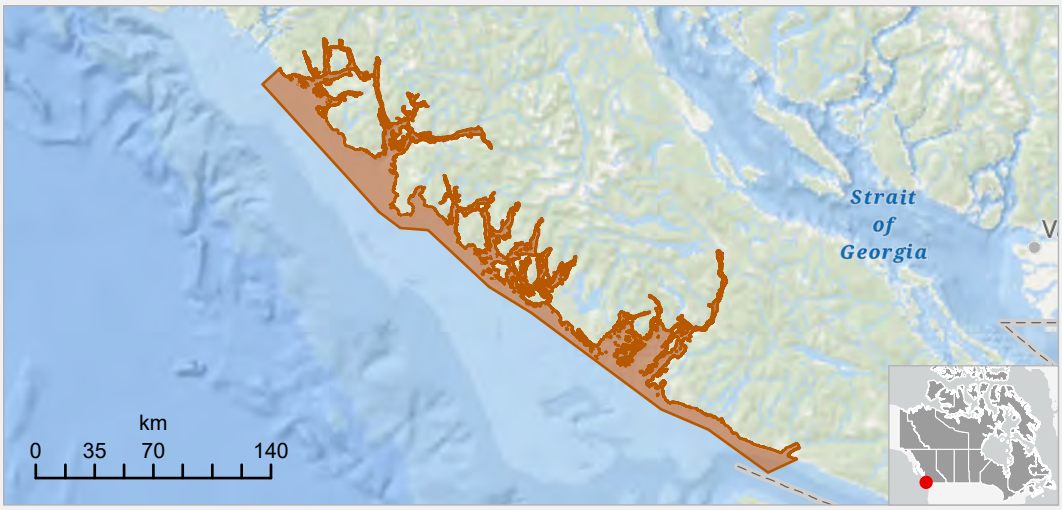
COLLABORATORS

Marine Education and Research Society

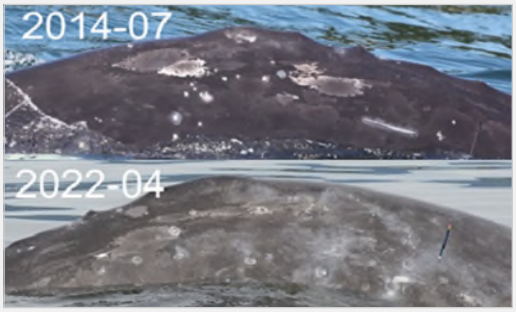
FOR MORE INFORMATION

Please contact Sheila.Thornton@dfo-mpo.gc.ca.

Grey whale foraging habitat
West coast of Vancouver Island



Example of small vessel used to conduct surveys.
© Fisheries and Oceans Canada



Grey whale (Eschrichtius robustus) photo ID left and right.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDAEMMS_19

CATEGORY
Population and ecosystem assessments

DATES
April 1 to November 30, 2026; March 1 to 31 2027

START YEAR
2022

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Vancouver Island

VESSEL
Small vessels

EMAIL
Thomas.Doniol-Valcroze@dfo-mpo.gc.ca

PHONE
250-739-2168

DESCRIPTION
This research consists of boat surveys to photo-identify known Pacific coast feeding group (PCFG) grey whales (Eschrichtius robustus), document their habitat use in Canadian waters, investigate their diet, and develop body condition measurement methods using drone technology. PCFG's use of diverse foraging strategies and habitats may have provided resilience to past climate change. Understanding this plasticity will provide key information about how future ecosystem changes (e.g., climate, prey) may affect grey whales.

OBJECTIVES
1. Photo-identify whales beginning in the spring, during the herring spawn.
2. Collect biopsy skin samples to investigate diet.
3. Develop drone techniques for measuring body condition.

COLLABORATORS
Cascadia Research Collective (USA), Pacific Coast Feeding Group Consortium

FOR MORE INFORMATION
Please contact Thomas.Doniol-Valcroze@dfo-mpo.gc.ca.

Grey whale and sea otter population assessment
South coast of British Columbia

CCGS Vector.
© Fisheries and Oceans Canada

Grey whale (Eschrichtius robustus) foraging in nearshore waters.
© B. Gisborne (Fisheries and Oceans Canada)

UNIQUE ID
PAC_ESDAEMMS_22

CATEGORY
Population and ecosystem assessments

DATES
July 22 to August 4, 2026

START YEAR
2024

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Vancouver Island, Queen Charlotte Strait

VESSEL
CCGS Vector, rigid-hull inflatable vessel

EMAIL
Thomas.Doniol-Valcroze@dfo-mpo.gc.ca

PHONE
250-739-2168

DESCRIPTION

This field operation will consist of vessel-based surveys of sea otters and Pacific Coast Feeding Group (PCFG) grey whales along exposed coastal areas, utilizing visual survey techniques and photo-identification techniques.

OBJECTIVES

1. Contribute to a range-wide survey of PCFG grey whales through a photo-identification survey along Vancouver Island.
2. Conduct sea otter surveys along the west coast of Vancouver Island.

COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Please contact Thomas.Doniol-Valcroze@dfo-mpo.gc.ca.

Juvenile sockeye salmon acoustic and trawl surveys

Fraser River nursery lakes

R/V Night Echo.
© Fisheries and Oceans Canada

Hauling a catch of pelagic fish onboard.
© Janvier Doire (Skeena Fisheries Commission)

UNIQUE ID
PAC_ESDFE_02

CATEGORY
Population and ecosystem assessments

DATES
July 15 to November 15, 2026

START YEAR
1974

RECURRENCE
Annually - Ongoing

LOCATIONS
Takla, Trembleur, Stuart, Fraser, Bowron, Quesnel, and Cultus lakes

VESSEL
R/V Night Echo

EMAIL
Lucas.Pon@dfo-mpo.gc.ca

PHONE
604-824-4707

DESCRIPTION

Rotational surveys of juvenile sockeye salmon (Oncorhynchus nerka) abundance, diet, and condition in Fraser River nursery lake ecosystems. Data and outputs support the assessment and recovery of aquatic species at risk and fisheries forecasting and management decisions.

OBJECTIVES

1. Estimate abundances and densities of juvenile sockeye salmon populations in key nursery lake ecosystems.
2. Evaluate growth and survival during lake rearing life stages.
3. Evaluate juvenile sockeye salmon diets in relation to lake food webs.
4. Evaluate juvenile sockeye salmon population condition and stock status.

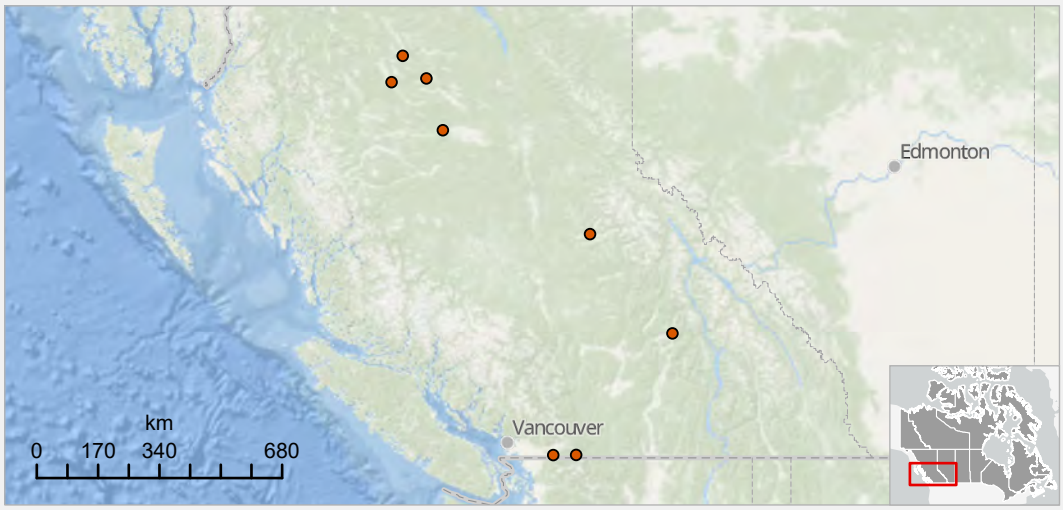
COLLABORATORS

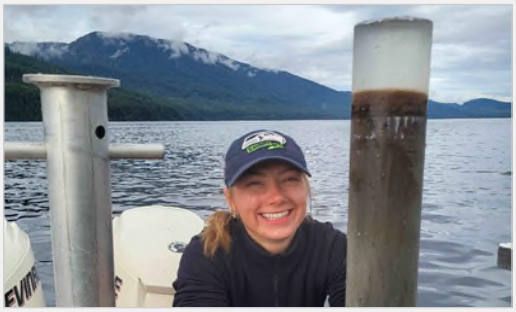
Lhtako Dene Nation, Takla Nation

FOR MORE INFORMATION

Hydroacoustic enumerations and trawl surveys in Quesnel Lake

Juvenile sockeye salmon nursery lake assessments
British Columbia





Retrieving a sediment core from Takla Lake.
© Daniel Selbie (Fisheries and Oceans Canada)

Installing moorings in Takla Lake.
© Steve McDonald (Fisheries and Oceans Canada)

UNIQUE ID
PAC_ESDFE_03

CATEGORY
Population and ecosystem assessments

DATES
May 1 to September 30, 2026

START YEAR
1985

RECURRENCE
Annually - Ongoing

LOCATIONS
Babine Lake; Takla, Trembleur, Fraser, Quesnel, Shuswap, Cultus, and Chilliwack lakes

VESSEL
R/V K.R.S. Shortreed, R/V Insomnia

EMAIL
Daniel.Selbie@dfo-mpo.gc.ca

PHONE
604-824-4702

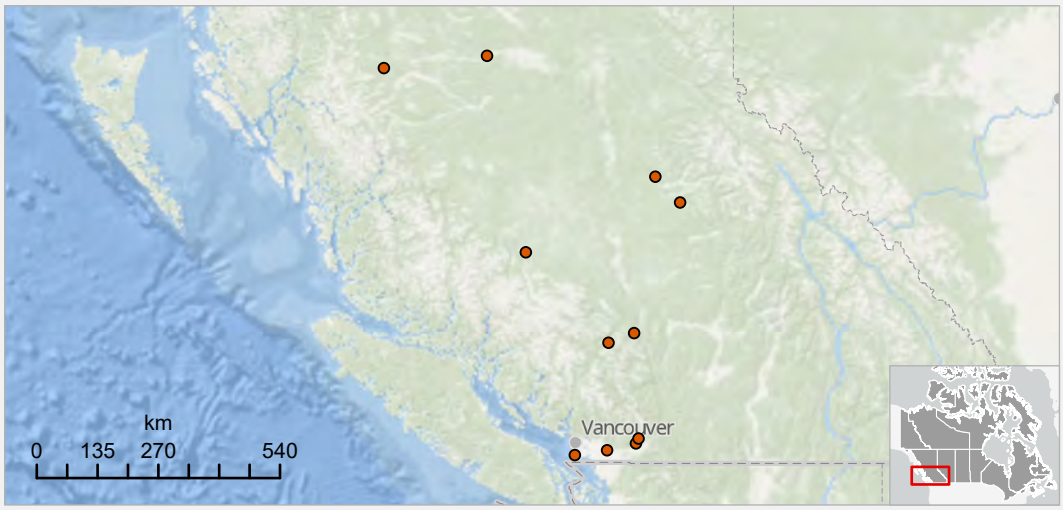
DESCRIPTION
This research aims to assess Canadian sockeye salmon (Oncorhynchus nerka) nursery lakes, over 200 watershed properties, food web structures and functioning, productive capacities, and limiting factors, via various field-based monitoring approaches. Data and research outputs support fisheries productive capacity estimates, and informs our understanding of freshwater habitat changes and constraints on freshwater salmon productivity.

OBJECTIVES
1. Monitor and assess nursery lakes, their watersheds, and climate conditions to establish productive capacities for juvenile salmon.
2. Define freshwater habitat limitations for sockeye salmon in Canadian marine and freshwater fisheries.
3. Research and identify stressors (human-caused) and drivers affecting salmon, freshwater habitats, and fisheries production.
4. Model and predict ecosystem processes to assess cumulative stressor impacts, and forecast changes to lakes and salmon production.
5. Reconstruct conditions and salmon abundances to identify stressor interactions that are limiting freshwater salmon production.

COLLABORATORS
Cheslatta Carrier Nation, Lake Babine Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stellat'en First Nation, Takla Nation, Ts'elxwéyeqw Tribe Management Ltd., Upper Fraser Fisheries Conservation Alliance, Province of British Columbia, McGill University, University of Northern British Columbia, University of Ottawa, Queen's University, British Columbia Lake Stewardship Society, Cultus Lake Aquatic Stewardship Society

FOR MORE INFORMATION
Please contact Daniel.Selbie@dfo-mpo.gc.ca.

Pacific salmon water temperature monitoring
Fraser watershed



UNIQUE ID
PAC_ESDFE_04

CATEGORY
Population and ecosystem assessments

DATES
April 1, 2026 to March 31, 2027

START YEAR
1950

RECURRENCE
Annually - Ongoing

Chilcotin River, a migration corridor monitored for temperature.
© Fisheries and Oceans Canada

Real time water temperature logger installation on Stuart River.
© Fisheries and Oceans Canada

LOCATIONS
Fraser Watershed

VESSEL
N/A

EMAIL
David.Patterson@dfo-mpo.gc.ca

PHONE
604-666-5671

DESCRIPTION
Monitoring and forecasting of water temperatures in salmon migratory corridors of the Fraser River to inform fisheries and habitat management.

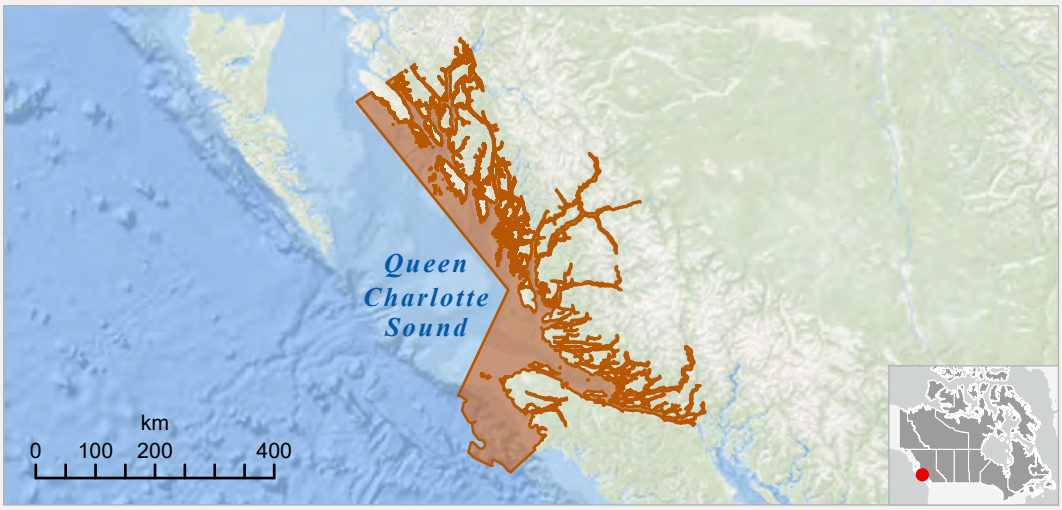
OBJECTIVES
1. Provide water temperature information on migratory conditions for Pacific salmon in the Fraser River watershed.
2. Monitor water temperatures in select migratory corridors for Pacific salmon.
3. Analyze water temperature information in relation to changes associated with climate and land use activities.
4. Forecast water temperatures to predict likelihood of adult sockeye salmon exposure to adverse migration conditions.
5. Input data into mortality models.

COLLABORATORS
Environment and Climate Change Canada, Simon Fraser University

FOR MORE INFORMATION
Environmental Watch Program

Coastal biodiversity survey

North and central coast of British Columbia



UNIQUE ID
PAC_ESDMSEA_01

CATEGORY
Population and ecosystem assessments

DATES
May 13 to June 13, 2026

START YEAR
2016

RECURRENCE
Annually - Ongoing

LOCATIONS
Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; Queen Charlotte Strait, Johnstone Strait, north and west coast of Vancouver Island

VESSEL
CCGS Vector, dive skiffs

EMAIL
Tammy.Norgard@dfo-mpo.gc.ca

PHONE
250-616-9278

CCGS Vector.
© Fisheries and Oceans Canada

Surveying biodiversity in intertidal zones.
© Michelle Paleczny (Fisheries and Oceans Canada)

DESCRIPTION

This collaborative survey will assess coastal habitats and species (e.g., fish, invertebrates, aquatic invasive species) within and near conservation areas in British Columbia. Findings will support marine conservation initiatives and contribute to long-term monitoring.

OBJECTIVES

1. Conduct coastal biodiversity surveys using standard and novel technologies, such as environmental DNA and drones.

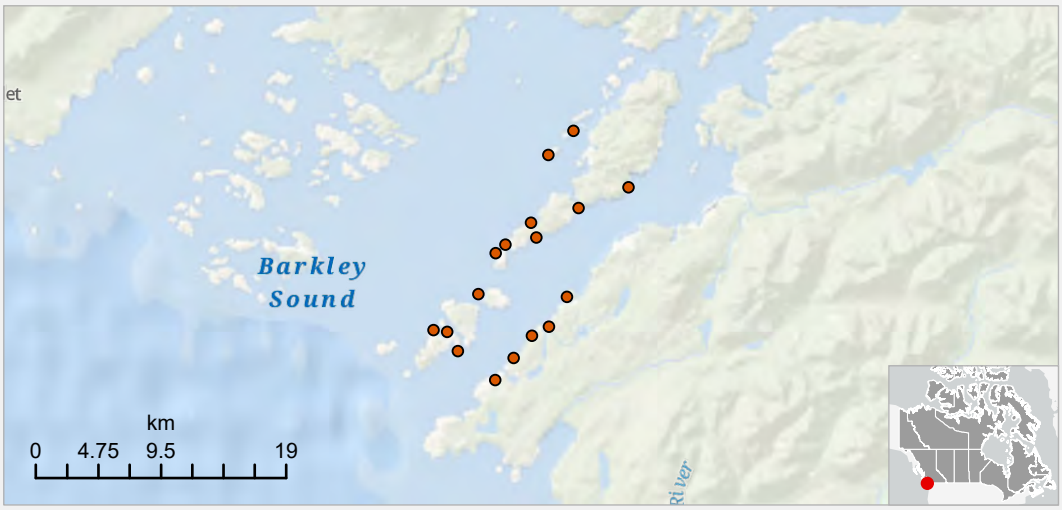
COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Please contact Tammy.Norgard@dfo-mpo.gc.ca.

Kelp ecosystem monitoring survey
Barkley Sound



R/V Palmira.
© Fisheries and Oceans Canada

Luscious kelp forest.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDMSEA_07

CATEGORY
Population and ecosystem assessments

DATES
August 4 to 18, 2026

START YEAR
2021

RECURRENCE
Annually - Ongoing

LOCATIONS
Barkley Sound

VESSEL
R/V Palmira

EMAIL
Sandie.Hankewich@dfo-mpo.gc.ca

PHONE
778-229-8199

DESCRIPTION
This kelp monitoring project is part of a collaborative effort in British Columbia aimed at improving understanding the drivers of changes in kelp forests. This dive survey provides the under the surface data that cannot be collected by remote sensing and kayaks/boats. Subtidal and intertidal surveys will be conducted at 15 permanent sites.

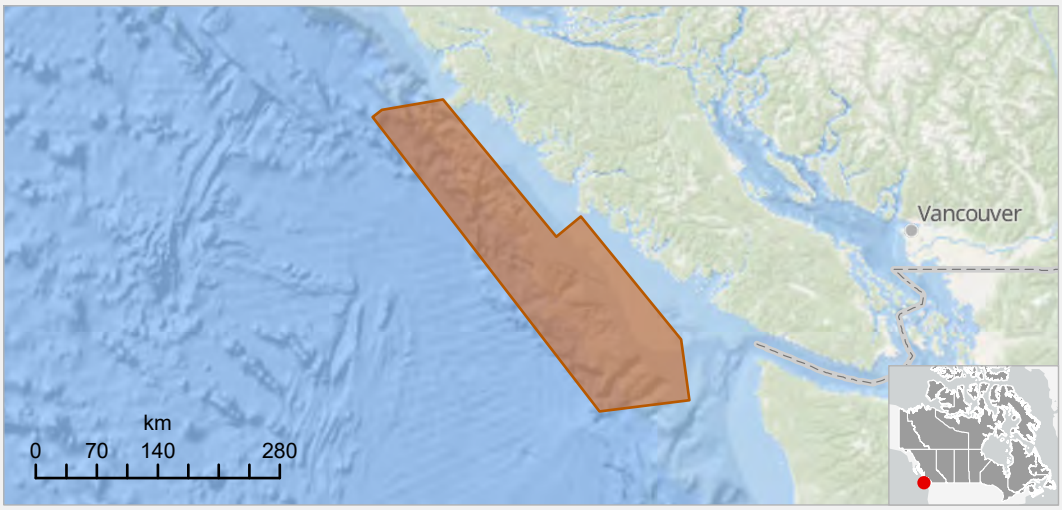
OBJECTIVES
1. Identify annual changes in understory kelp bed extent.
2. Monitor annual changes in the density and abundance of algae, invertebrate and fish species associated with rocky reefs.
3. Examine the influence of environmental variables on kelp density, diversity, and possibly productivity.
4. Survey the intertidal algae and invertebrate communities at each site.

COLLABORATORS
Bamfield Marine Sciences Centre

FOR MORE INFORMATION
Marine Plan Partnership for the North Pacific Coast

Deep-sea expedition and surveys for containers lost at sea

West coast of Vancouver Island



CCGS John P. Tully.
© Shelton Du Preez (Fisheries and Oceans Canada)

ROPOS deployment.
© Nicole Holman and Northeast Pacific Deep Sea Expedition partners

UNIQUE ID
PAC_ESDMSEA_09

CATEGORY
Population and ecosystem assessments

DATES
August 4 to August 18, 2026

START YEAR
2017

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Vancouver Island, including La Pérouse Bank

VESSEL
CCGS John P. Tully

EMAIL
Tammy.Norgard@dfo-mpo.gc.ca

PHONE
250-616-9278

DESCRIPTION

This expedition will visually explore deep sea habitats in the vicinity of Ecologically and Biologically Significant Areas (EBSAs) in existing, planned, and potential Marine Protected Areas (MPAs). Findings will support marine conservation initiatives and contribute to long-term monitoring. Surveys will also locate or re-visit shipping containers lost at sea – and their associated debris – to study their fate, behaviour, and biological impacts over time.

OBJECTIVES

1. Characterize benthic habitats and fauna via visual surveys, bathymetric mapping, oceanographic sampling, and specimen collection.
2. Re-visit long term monitoring sites.
3. Conduct science outreach and communication.
4. Re-survey and map known shipping container sites, including debris fields, and document changes over time.
5. Locate additional lost shipping containers and debris fields based on reports and observations.

COLLABORATORS

Uu-a-thluk Nuu-chah-nulth Fisheries, Canadian Coast Guard, University of Victoria, Challenger 150, Ocean Networks Canada, United Nations Oceans Decade, Royal British Columbia Museum

FOR MORE INFORMATION

Northeast Pacific deep-sea exploration project (en anglais seulement)

Intertidal biodiversity survey
Saanich Inlet

UNIQUE ID
PAC_ESDMSEA_10

CATEGORY
Population and ecosystem assessments

DATES
May 1 to September 30, 2026

START YEAR
2024

RECURRENCE
Annually - Ongoing

LOCATIONS
Saanich Inlet, Vancouver Island

VESSEL
N/A

EMAIL
Sarah.Dudas@dfo-mpo.gc.ca

PHONE
250-327-3501

Conducting a biodiversity assessment.
© Fisheries and Oceans Canada

Malahat Nation and DFO collaborating on surveys.
© Fisheries and Oceans Canada

DESCRIPTION
This collaborative biodiversity survey will assess intertidal habitats and species. These data will help support Marine Conservation Targets, Integrated Marine Response Planning, Marine Spatial Planning, and the Malahat Nation.

OBJECTIVES
1. Conduct an intertidal invertebrate survey.
2. Assess intertidal invertebrate biodiversity and abundance.
3. Assess intertidal habitat.
4. Share knowledge.

COLLABORATORS
Malahat Nation

FOR MORE INFORMATION
Please contact Sarah.Dudas@dfo-mpo.gc.ca.

Rockfish Conservation Area coastwide monitoring
Southern Gulf Islands

UNIQUE ID
PAC_ESDMSEA_13

CATEGORY
Population and ecosystem assessments

DATES
November 1, 2026 to March 31, 2027

START YEAR
2025

RECURRENCE
Annually - Ongoing

LOCATIONS
Southern Gulf Islands

VESSEL
CCGS Vector, M/V Manyberries

EMAIL
Jessica.Nephin@dfo-mpo.gc.ca

PHONE
250-363-6564

CCGS Vector.
© Sharon Jeffery (Fisheries and Oceans Canada)

M/V Manyberries.
© Fisheries and Oceans Canada

DESCRIPTION

Rockfish Conservation Areas (RCAs) were established throughout British Columbia between 2003-2007. This work will implement coastwide RCA monitoring advice using a remotely operated vehicle (ROV), and ultimately help inform the effectiveness of RCAs. Each year, the field monitoring will focus on a different coastal area.

OBJECTIVES

1. Assess the abundance of rockfish and lingcod inside RCAs, and in comparable areas outside RCAs.
2. Assess the quality and quantity of rockfish habitat inside RCAs, and in comparable areas outside RCAs.
3. If possible, assess the size of rockfish and lingcod inside RCAs, and in comparable areas outside RCAs.
4. Conduct water sampling for environmental DNA and oceanographic variables.
5. If possible, collect video footage using different equipment and methods to determine if the data are comparable.

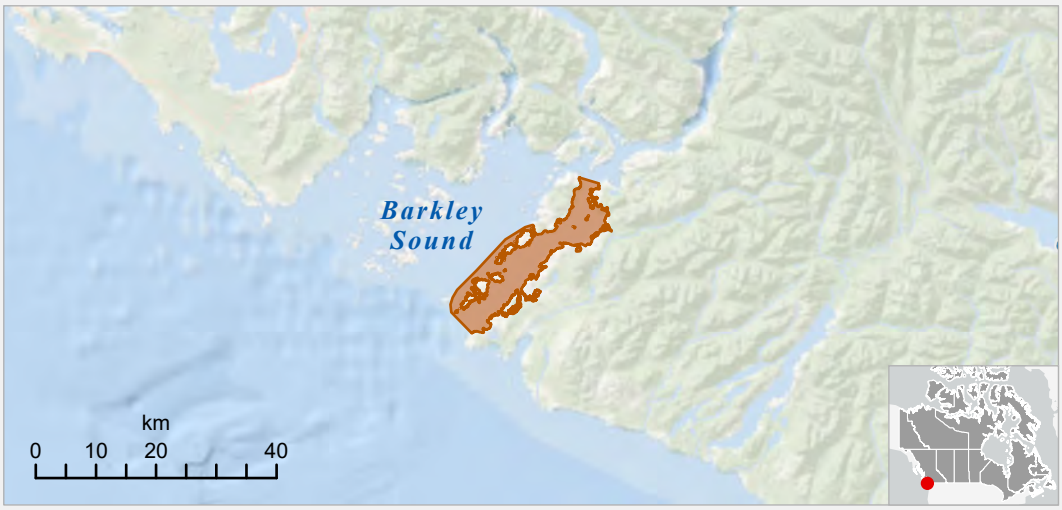
COLLABORATORS

Malahat Nation, Tsawout First Nation, Canadian Coast Guard

FOR MORE INFORMATION

Please contact Jessica.Nephin@dfo-mpo.gc.ca.

Rocky intertidal survey
Barkley Sound



Setting up a quadrat for long-term monitoring.
© Michelle Paleczny (Fisheries and Oceans Canada)

Setting up a quadrat for long-term monitoring.
© Michelle Paleczny (Fisheries and Oceans Canada)

UNIQUE ID
PAC_ESDMSEA_15

CATEGORY
Population and ecosystem assessments

DATES
June 1 to July 31, 2026

START YEAR
2024

RECURRENCE
Annually - Ongoing

LOCATIONS
Barkley Sound

VESSEL
Dive skiff

EMAIL
Sarah.Dudas@dfo-mpo.gc.ca

PHONE
250-327-3501

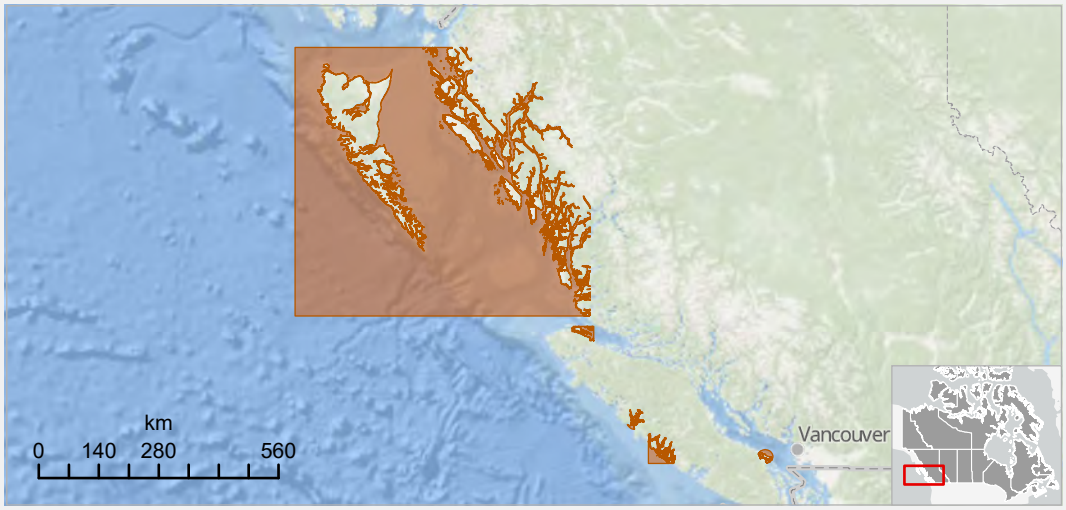
DESCRIPTION
This field work will monitor target species (mussels, anemones, barnacles) and biodiversity at a subset of sites for which intertidal algae and subtidal kelp forests are currently monitored.

OBJECTIVES
1. Monitor target species in rocky intertidal zones.
2. Assess biodiversity in rocky intertidal zones.

COLLABORATORS
Huu-ay-aht First Nations, Toquaht Nation, Bamfield Marine Sciences Centre

FOR MORE INFORMATION
Please contact Sarah.Dudas@dfo-mpo.gc.ca.

Nearshore species distribution dive surveys
Coastal British Columbia



CCGS Vector.
© Fisheries and Oceans Canada

Divers collecting data.
© Pauline Ridings (Fisheries and Oceans Canada)

UNIQUE ID
PAC_ESDMSEA_16

CATEGORY
Population and ecosystem assessments

DATES
April 1 to November 30, 2027

START YEAR
2025

RECURRENCE
Annually for 3 years

LOCATIONS
Dixon Entrance, Haida Gwaii (including coastal waters), Chatham Sound, Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; Queen Charlotte Strait, Strait of Georgia, west coast of Vancouver Island (Nootka Sound and Clayoquot Sound)

VESSEL
CCGS Vector, R/V Rossia, R/V Palmira, dive skiff

EMAIL
Michelle.Bigg@dfo-mpo.gc.ca

PHONE
250-756-7310

DESCRIPTION
Predictions from species distribution models (SDMs) serve as valuable guides for management and conservation decisions. However, SDM predictions entail uncertainties, particularly when extrapolating to novel environmental conditions or geographic areas. These dive surveys will help evaluate the reliability and utility of species distribution models by gathering independent presence-absence and relative abundance data for red, green, and purple sea urchins, red sea cucumber, as well as kelp and seagrass species (e.g., Pterygophora, Phyllospadix, Zostera).

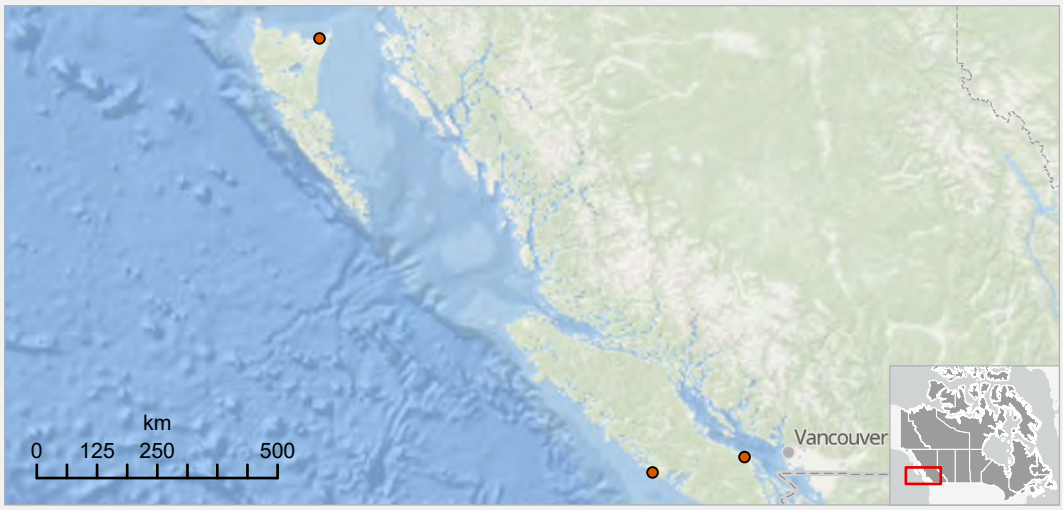
OBJECTIVES
1. Collect data on shallow (up to 20 m deep) benthic habitat, as well as several invertebrate and algae species.
2. Refine and reduce uncertainty in predictive distribution maps for several nearshore invertebrate and algae species.
3. Refine and reduce uncertainty in predictive nearshore substrate maps.

COLLABORATORS
Canadian Coast Guard, University of British Columbia

FOR MORE INFORMATION
Please contact Michelle.Bigg@dfo-mpo.gc.ca.

Pacific oyster and Pacific razor clam stress response

Haida Gwaii and Vancouver Island



Pacific oyster (Crassostrea gigas) bed.
© Claire Mackenzie (Fisheries and Oceans Canada)

Pacific razor clam (Siliqua patula).
© Rick Harbo (Fisheries and Oceans Canada)

UNIQUE ID
PAC_ESDNE_13

CATEGORY
Population and ecosystem assessments

DATES
April 1, 2026 to March 31, 2027

START YEAR
2023

RECURRENCE
Never

LOCATIONS
Haida Gwaii (North Beach); Strait of Georgia (Departure Bay), west coast of Vancouver Island (Wickaninnish Beach)

VESSEL
N/A

EMAIL
Chris.Pearce@dfo-mpo.gc.ca

PHONE
250-756-3352

DESCRIPTION

Field trials will assess candidate gene sets as a means of monitoring stress responses of Pacific oysters (Crassostrea gigas) and Pacific razor clams (Siliqua patula) during acute warming and low oxygen events (e.g., heatwaves, hypoxia). Findings will support the development of an early warning system to aid managers and industry in mitigating such events. A laboratory experiment using Pacific razor clams from Wickaninnish Beach will further inform this field research.

OBJECTIVES

1. Carry out a laboratory heatwave and hypoxia experiment to identify candidate gene sets to monitor stress responses in the field.
2. Track stress response of Pacific oysters (Departure Bay) and Pacific razor clams (North Beach) during summer months.
3. Monitor temperature and dissolved oxygen conditions at Departure Bay and North Beach during summer months.

COLLABORATORS

Council of the Haida Nation

FOR MORE INFORMATION

Please contact Chris.Pearce@dfo-mpo.gc.ca.

Olympia oyster health assessment
Vancouver Island

Index site near Hillier Island (Barkley Sound).
© Clara Mackenzie (Fisheries and Oceans Canada)

Olympia oyster (Ostrea lurida).
© Tammy Norgard (Fisheries and Oceans Canada)

UNIQUE ID
PAC_ESDNE_15

CATEGORY
Population and ecosystem assessments

DATES
April 1, 2026 to March 31, 2027

START YEAR
2025

RECURRENCE
Never

LOCATIONS
Strait of Georgia, Barkley Sound, Nootka Sound, Gorge Waterway

VESSEL
N/A

EMAIL
Chris.Pearce@dfo-mpo.gc.ca

PHONE
250-756-3352

DESCRIPTION

The Olympia oyster is the only native oyster species on Canada's Pacific coast, and is listed as a species of special concern under the federal Species at Risk Act. These health status assessments of Vancouver Island Olympia oyster populations will provide a comparative update to the 2008 baseline assessment, and contribute to health status information in the context of climate change.

OBJECTIVES

1. Conduct health status screening of Olympia oyster index sites across Vancouver Island.
2. Conduct stress monitoring (gene expression) at a selected index site over one summer season on a monthly basis.
3. Investigate the impacts of heatwaves on the health status and stress response of Olympia oysters via a laboratory-based experiment.
4. Conduct pathogen screening at a selected index site over one spring season.

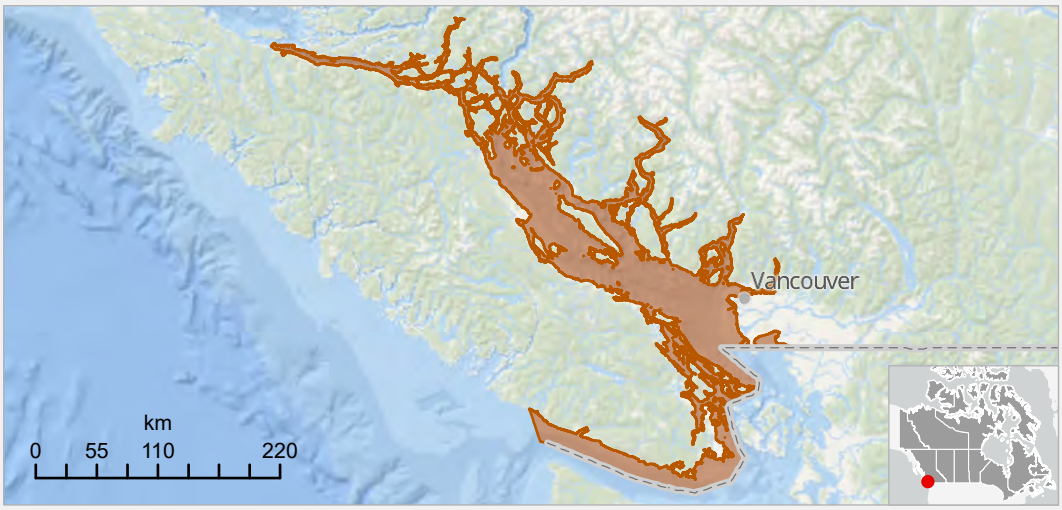
COLLABORATORS

Toquaht Nation, World Fisheries Trust

FOR MORE INFORMATION

Please contact Chris.Pearce@dfo-mpo.gc.ca.

Juvenile salmon survey
Strait of Georgia



CCGS Sir John Franklin.
© Fisheries and Oceans Canada

Crew shaking down a modified trawl net.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDREEFF_01

CATEGORY
Population and ecosystem assessments

DATES
June 18 to July 3 and September 12 to 30, 2026

START YEAR
1998

RECURRENCE
Annually - Ongoing

LOCATIONS
Queen Charlotte Strait, Johnstone Strait, Discovery Islands, Strait of Georgia, Juan de Fuca Strait, coastal inlets of British Columbia; Howe Sound, səlilw̓ət (Burrard Inlet and Indian Arm), Roberts Bank, Boundary Bay

VESSEL
CCGS Sir John Franklin

EMAIL
Jackie.King@dfo-mpo.gc.ca

PHONE
250-756-7176

DESCRIPTION
Early summer and fall surveys will examine the abundance, distribution and condition of juvenile Pacific salmon. This research informs our understanding of factors regulating their early marine survival (e.g., early marine growth and energetics, interactions with salmon farms or other industry, changes in climate). Species sampling and enumeration will also improve our understanding of species interactions and competition, as well as changes in marine productivity driven by changes in ocean climate.

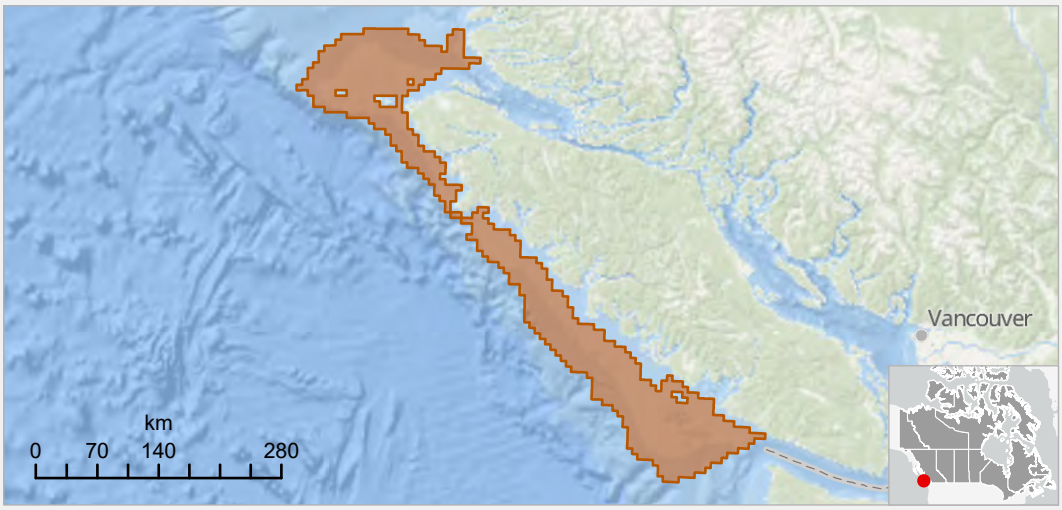
OBJECTIVES
1. Determine the relationship between the growth and condition of juvenile salmon and their subsequent total marine survival.
2. Develop methods to identify changes in salmon production trends and/or provide early return forecasts for specific stocks.
3. Enumerate and sample all species collected in the surface 75m.

COLLABORATORS
Canadian Coast Guard

FOR MORE INFORMATION
Please contact Jackie.King@dfo-mpo.gc.ca.

Integrated pelagic ecosystem science survey

West coast of Vancouver Island



UNIQUE ID
PAC_ESDREEFF_02

CATEGORY
Population and ecosystem assessments

DATES
July 2 to August 1, 2026

START YEAR
2017

RECURRENCE
Annually - Ongoing

LOCATIONS
Queen Charlotte Sound; West coast of Vancouver Island

VESSEL
CCGS Sir John Franklin

EMAIL
Jackie.King@dfo-mpo.gc.ca

PHONE
250-756-7176

CCGS Sir John Franklin.
© Fisheries and Oceans Canada

Collecting biological data from fish.
© Fisheries and Oceans Canada

DESCRIPTION

This survey is part of an integrated project designed to study the structure and function of the pelagic ecosystem on the Vancouver Island continental shelf (< 200 m bottom depth). The main goal of the survey is to understand factors affecting the distribution, abundance, and food web linkages of pelagic fish species, such as Pacific herring and juvenile salmon. Stations from randomly selected blocks in each stratum will be sampled with a midwater trawl net towed at the surface or 15 m depth during daylight and nighttime hours.

OBJECTIVES

1. Examine species distribution, composition, and abundance.
2. Collect biological and diet data, as well as biological samples.
3. Examine the prey environment by sampling zooplankton (vertical bongo net hauls) and conducting oceanographic monitoring.

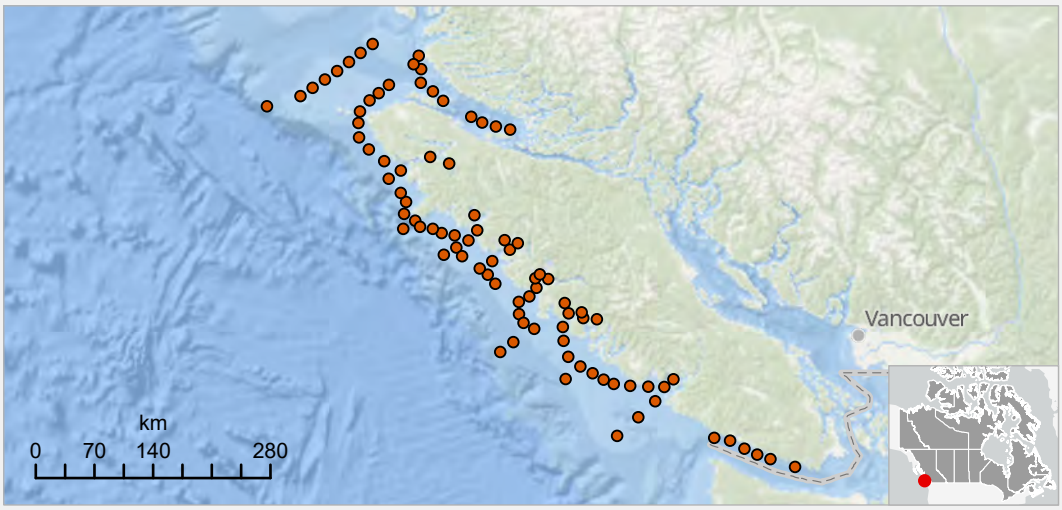
COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Integrated pelagic ecosystem survey 2024

Juvenile salmon survey
West Coast of Vancouver Island



CCGS Sir John Franklin.
© Fisheries and Oceans Canada

Sorting salmon, sablefish, and jellyfish.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDREEFF_03

CATEGORY
Population and ecosystem assessments

DATES
October 1 to 15, 2026

START YEAR
1998

RECURRENCE
Annually - Ongoing

LOCATIONS
Queen Charlotte Sound; Queen Charlotte Strait, Juan de Fuca Strait, West coast of Vancouver Island

VESSEL
CCGS Sir John Franklin

EMAIL
Jackie.King@dfo-mpo.gc.ca

PHONE
250-756-7176

DESCRIPTION
This survey will be used to estimate the condition and stock composition of Pacific salmon on the west coast of Vancouver Island. Oceanographic sampling will allow us to relate salmon abundance and condition to physical sea conditions, and presence and quality of prey (zooplankton).

OBJECTIVES
1. Determine the fall abundance, condition, distribution, and genetic stock composition of juvenile salmon, especially chinook.
2. Collect physical oceanographic and zooplankton data to relate back to salmon ecology.
3. Record biological information for all species caught (e.g., other fish species, live-released sharks, invertebrates).

COLLABORATORS
Huu-ay-aht First Nations, Ka:'yu:'k't'h'/Che:k'tles7et'h' First Nations, Quatsino First Nation, Ha’oom Fisheries Society, Uu-a-thluk Nuu-chah-nulth Fisheries, Canadian Coast Guard

FOR MORE INFORMATION
Please contact Jackie.King@dfo-mpo.gc.ca.

Juvenile Pacific herring survey
Strait of Georgia

R/V Walker Rock.
© Jennifer Boldt (Fisheries and Oceans Canada)

Skipper alongside a purse seine net.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_ESDREEFF_06

CATEGORY
Population and ecosystem assessments

DATES
September 1 to 30, 2026

START YEAR
1992

RECURRENCE
Annually - Ongoing

LOCATIONS
Strait of Georgia

VESSEL
R/V Walker Rock

EMAIL
Jennifer.Boldt@dfo-mpo.gc.ca

PHONE
250-734-3224

DESCRIPTION
This annual survey aims to improve understanding of Pacific herring (Clupea pallasii) recruitment and distribution. Samples will be collected after dusk with a small purse seine at 56 stations along 12 transects in the Strait of Georgia. Acoustic data will be collected along transects. This information informs stock assessment, state of the ocean reporting, and research publications.

OBJECTIVES
1. Estimate relative biomass of juvenile herring as an indicator of recruitment.
2. Collect biological data and estimate the relative condition of juvenile herring.
3. Examine the prey environment by sampling zooplankton and conducting oceanographic monitoring.

COLLABORATORS
Environment and Climate Change Canada, Pacific Salmon Foundation

FOR MORE INFORMATION
Strait of Georgia juvenile Pacific herring survey - September 2024 (en anglais seulement)

Pacific hake assessment survey

West coast of Vancouver Island

CCGS Sir John Franklin.
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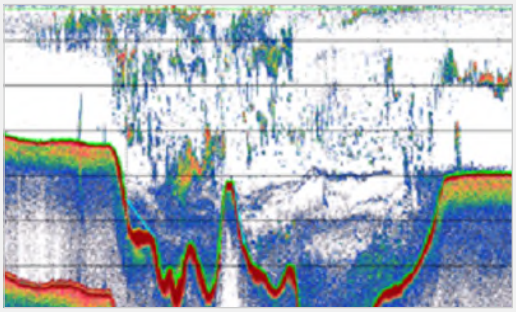


Echogram of detected fish schools in the water column.
© Stéphane Gauthier (Fisheries and Oceans Canada)

UNIQUE ID
PAC_OSDOEB_07a

CATEGORY
Population and ecosystem assessments

DATES
August 15 to September 12, 2026

START YEAR
1995

RECURRENCE
Annually - Ongoing

LOCATIONS
North and west coast of Vancouver Island, Juan de Fuca Strait

VESSEL
CCGS Sir John Franklin, Bell M. Shimada

EMAIL
Stephane.Gauthier@dfo-mpo.gc.ca

PHONE
250-363-6587

DESCRIPTION

The fisheries acoustic trawl survey is the primary source of fishery-independent data informing the stock assessment of Pacific hake along the west coast of Canada and the U.S. This stock is jointly managed by Canada and the U.S. under the international Pacific Hake / Whiting Treaty. The survey occurs coastwide in odd years and at select locations only (for research purposes) in even years.

OBJECTIVES

1. Estimate the abundance and distribution of Pacific hake along the West Coast using fisheries acoustics techniques.
2. Collect midwater trawl samples to verify species composition of acoustic marks.
3. Collect biological samples to estimate fish size and conditions.
4. Collect information on prey species, such as krill and mesopelagic fishes.
5. Collect oceanographic data to better understand distribution and movements of Pacific hake.

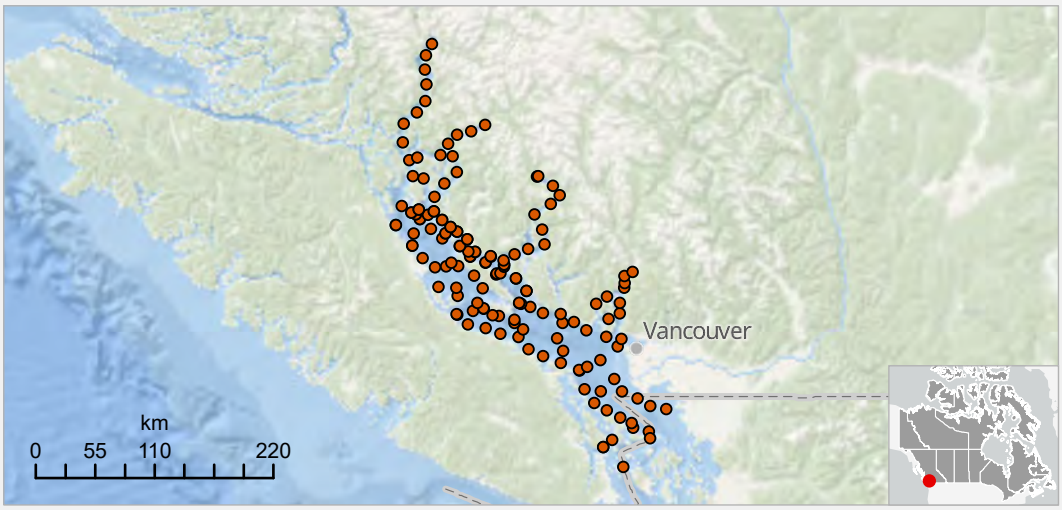
COLLABORATORS

Canadian Coast Guard, National Oceanic and Atmospheric Administration (National Marine Fisheries Service - USA)

FOR MORE INFORMATION

Pacific Hake / Whiting Treaty (en anglais seulement)

Pelagic ecosystem acoustic survey
Strait of Georgia



UNIQUE ID
PAC_OSDOEB_12

CATEGORY
Population and ecosystem assessments

DATES
February 16 to March 3, 2027

START YEAR
1995

RECURRENCE
Annually - Ongoing

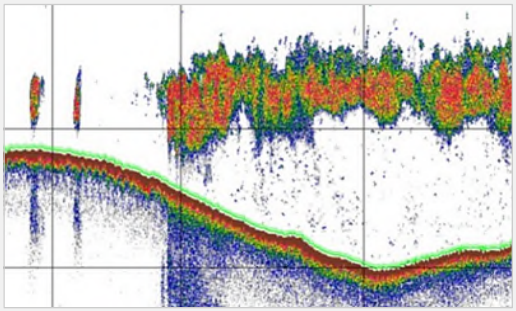
LOCATIONS
Bute Inlet, Toba Inlet, Desolation Sound, Strait of Georgia, Jervis Inlet; Howe Sound, Boundary Bay

VESSEL
CCGS Sir John Franklin

EMAIL
Stephane.Gauthier@dfo-mpo.gc.ca

PHONE
250-363-6587

CCGS Sir John Franklin.



Echogram of detected fish schools in the water column.

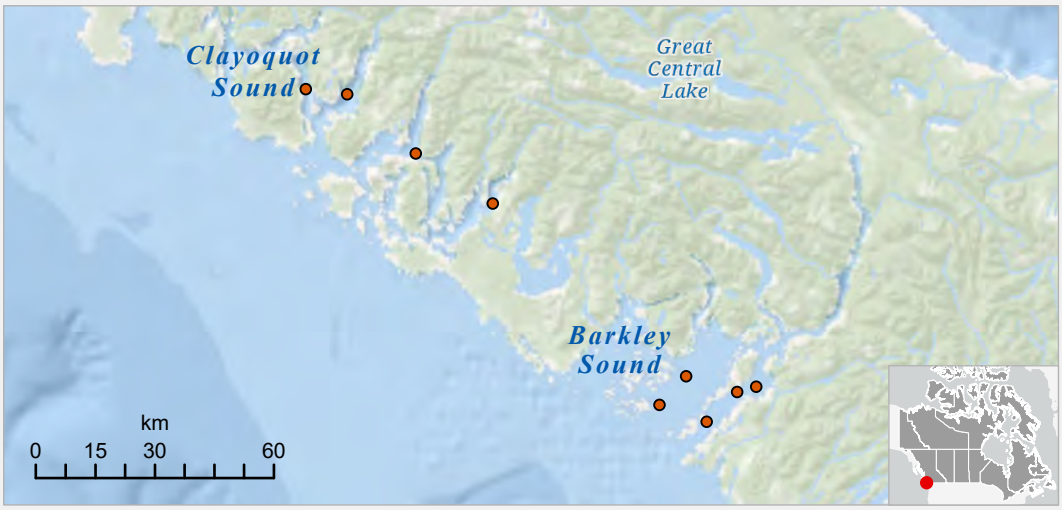
DESCRIPTION
Acoustic trawl survey to assess the pelagic ecosystem. The survey particularly assesses the distribution and abundance of local stocks of Pacific hake and walleye pollock, as well as Pacific herring and other pelagic species. Acoustic and oceanographic data are also used for assessing ecosystem conditions and changes.

OBJECTIVES
1. Estimate the abundance and distribution of pelagic and demersal species using fisheries acoustics techniques.
2. Collect midwater trawl samples to verify species composition of acoustic marks.
3. Collect biological samples to estimate fish size and conditions.
4. Collect oceanographic data using a CTD (conductivity, temperature, and depth) rosette and plankton nets.

COLLABORATORS
Canadian Coast Guard, National Oceanic and Atmospheric Administration (National Marine Fisheries Service - USA), University of Victoria, Canadian Groundfish Research and Conservation Society, Pacific Salmon Foundation

FOR MORE INFORMATION
State of the Pacific Ocean

Euphausiid Monitoring Program
Barkley and Clayoquot Sounds



UNIQUE ID
PAC_OSDOEB_17

CATEGORY
Population and ecosystem assessments

DATES
March 5 to November 5, 2026

START YEAR
2022

RECURRENCE
Annually - Ongoing

R/V Alta.
© Fisheries and Oceans Canada

Evening sampling on back deck of R/V Alta.
© Fisheries and Oceans Canada

LOCATIONS
Barkley and Clayoquot sounds

VESSEL
R/V Alta and charter

EMAIL
Kelly.Young@dfo-mpo.gc.ca

PHONE
250-363-6502

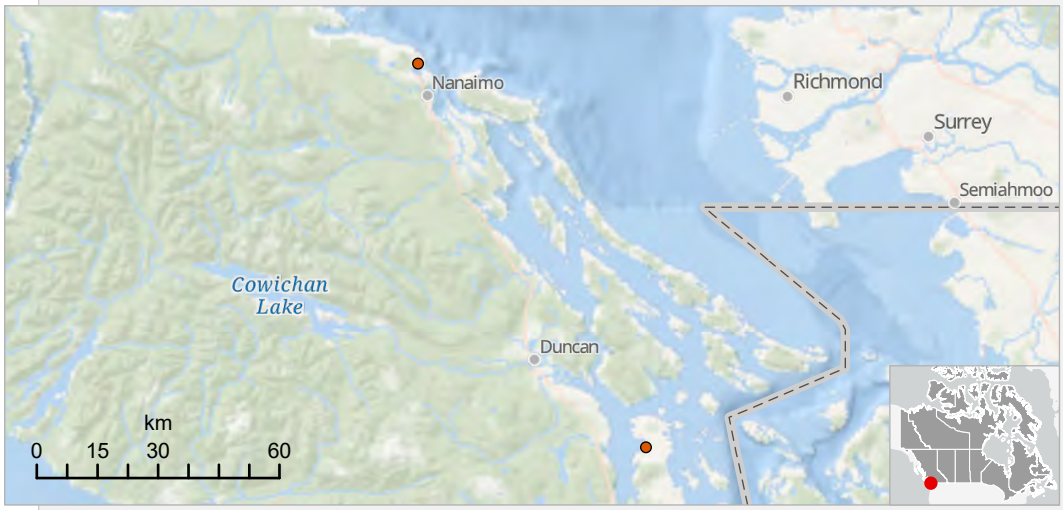
DESCRIPTION
The DFO euphausiid monitoring program aims to characterize seasonal, inter-annual, and long-term variability of euphausiid production dynamics in Barkley Sound (five stations) and Clayoquot Sound (four stations). Euphausiids, in particular the species Thysanoessa spinifera, are of particular importance to marine food webs and are an essential prey item of juvenile salmon and herring.

OBJECTIVES
1. Conduct monthly surveys at night, when euphausiids are active in surface waters.
2. Conduct monthly double oblique bongo tows (335µm mesh) or ring net (200µm) plankton sampling.
3. Conduct monthly full water column CTD (conductivity, temperature, and depth) profiles, and other oceanographic measurements.
4. Conduct monthly surface water sampling for salinity, nutrients, chlorophyll-a, and phytoplankton taxonomy in Barkley Sound.

COLLABORATORS
Ha'oom Fisheries Society, Bamfield Marine Sciences Centre, University of British Columbia, University of Victoria

FOR MORE INFORMATION
Population biology and productivity of Thysanoessa spinifera (en anglais seulement)

Researching the research stations
Hammond Bay and Patricia Bay



Intertidal biodiversity survey.
© Dr. Lucie Hannah (Fisheries and Oceans Canada)

Conducting a drone survey.
© Georgia Clyde (Fisheries and Oceans Canada)

UNIQUE ID
PAC_OSDROPES_06

CATEGORY
Population and ecosystem assessments

DATES
April 1 to 30, 2026

START YEAR
2024

RECURRENCE
Annually - Ongoing

LOCATIONS
Hammond Bay and Patricia Bay

VESSEL
N/A

EMAIL
Jocelyn.Nelson@dfo-mpo.gc.ca

PHONE
250-616-1879

DESCRIPTION

This annual survey will track ecological and biophysical properties of areas surrounding the Pacific Biological Station (PBS) and the Institute of Ocean Sciences (IOS) over time. Findings will be incorporated into established survey data streams to support marine conservation initiatives and contribute to long-term monitoring.

OBJECTIVES

1. Track ecological and biophysical properties of areas surrounding each site over time, using established protocols.
2. Map topography, substratum, and biogenic habitat over time.
3. Conduct invertebrate and fish surveys using standard methodologies.
4. Monitor for sessile aquatic invasive species using settlement plates.
5. Conduct marine debris surveys and clean-ups.

COLLABORATORS

N/A

FOR MORE INFORMATION

Please contact Jocelyn.Nelson@dfo-mpo.gc.ca.

Dungeness crab telemetry
Láiq (Mussel Inlet)

R/V Nerka.
© Shaun MacNeill (Fisheries and Oceans Canada)

Dungeness crab (Cancer magister).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_SSICSRS_01

CATEGORY
Population and ecosystem assessments

DATES
June 1 to 30; October 1 to 21, 2026

START YEAR
2025

RECURRENCE
Annually for 3 years

LOCATIONS
Láiq (Mussel Inlet)

VESSEL
R/V Nerka

EMAIL
Dan.Curtis@dfo-mpo.gc.ca

PHONE
250-327-9162

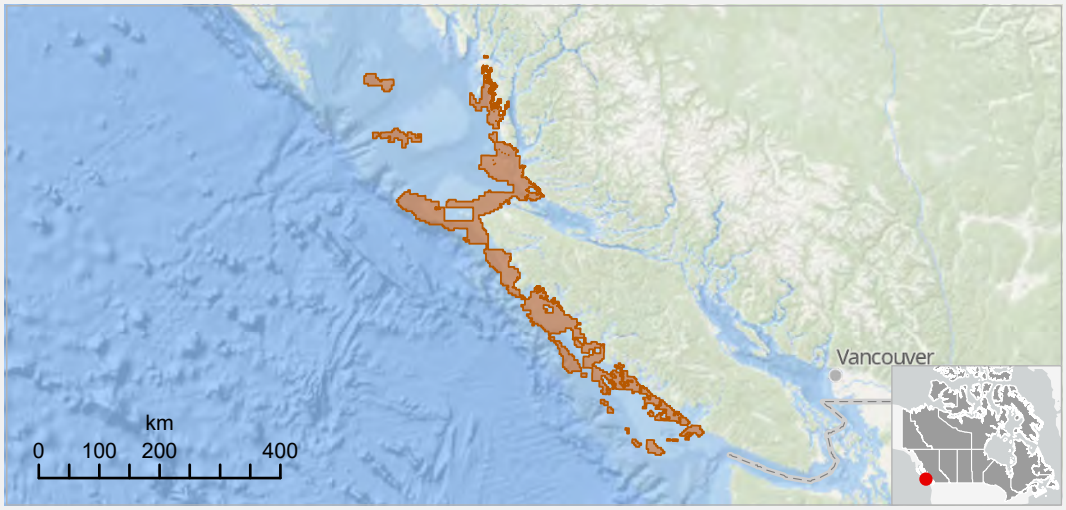
DESCRIPTION
To better understand the effects of low salinity on habitat use by Dungeness crab, we will be installing an array of acoustic receivers and environmental sensors to quantify the movements of tagged crabs in relation to the environmental conditions within an estuary. Given the significance of Dungeness crab in these habitats for meeting the food, social, and ceremonial (FSC) needs of Indigenous communities on the Central Coast, the results of this work will be important in understanding the impacts of changing environmental conditions on FSC access now and into the future.

OBJECTIVES
1. Track fine-scale movements of Dungeness crab.
2. Quantify seasonal habitat variability.

COLLABORATORS
Kitasoo Xai'xais Nation, Kitasoo/Xai'xais Stewardship Authority, Simon Fraser University

FOR MORE INFORMATION
Please contact Dan.Curtis@dfo-mpo.gc.ca.

Hard bottom longline hook survey
Southern outside waters



A yelloweye rockfish hiding behind anemones.
© Fisheries and Oceans Canada

Quillback Rockfish (Sebastes maliger).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARGF_01a

CATEGORY
Population and ecosystem assessments

DATES
July 15 to September 15, 2026

START YEAR
2006

RECURRENCE
Every 2 years

LOCATIONS
Queen Charlotte Sound, coastal inlets of British Columbia; North and west coast of Vancouver Island, Queen Charlotte Strait

VESSEL
Commercial fishing vessels

EMAIL
Matthew.Siegle@dfo-mpo.gc.ca

PHONE
250-327-1398

DESCRIPTION
This fishing survey uses standardized longline gear at approximately 200 randomly selected sites to: provide relative abundance indices for commonly caught species, distributional and occurrence data for all other species, and detailed biological data for inshore groundfish species. These data are incorporated into stock assessments, status reports, and research publications. In even years, this survey occurs in southern outside waters (PAC_StARGF_01a) and in odd years it occurs in northern outside waters (PAC_StARGF_01b).

OBJECTIVES
1. Collect detailed species composition data from each set.
2. Collect detailed size and sex composition data, ageing structures, and tissue samples from inshore rockfish species and Lingcod.
3. Collect environmental data using temperature-depth recorders attached to the fishing gear.

COLLABORATORS
Pacific Halibut Management Association of BC

FOR MORE INFORMATION
Outside south hard bottom longline surveys

Hard bottom longline hook survey
Southern inside waters

CCGS Neocaligus.
© Fisheries and Oceans Canada

Tiger rockfish (Sebastes nigrocinctus).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARGF_03a

CATEGORY
Population and ecosystem assessments

DATES
July 31 to August 25, 2026

START YEAR
2003

RECURRENCE
Every 2 years

LOCATIONS
Discovery Passage, Sutil Channel, Desolation Sound, Okeover Inlet, Strait of Georgia, Jervis Inlet, Agamemnon Channel, southern Gulf Islands, Haro Strait; Howe Sound, Burrard Inlet

VESSEL
CCGS Neocaligus

EMAIL
Matthew.Siegle@dfo-mpo.gc.ca

PHONE
250-327-1398

DESCRIPTION
This fishing survey uses standardized longline hook gear to provide relative abundance indices for commonly caught species, distributional and occurrence data for all other species, and detailed biological data for inshore groundfish species. The survey takes place at approximately 70 randomly selected locations in the southern inside waters of British Columbia. These data are incorporated into stock assessments, status reports, and research publications.

OBJECTIVES
1. Collect detailed species composition data from each set.
2. Collect detailed size and sex composition for all species.
3. Collect ageing structures and tissue samples from inshore rockfish species and lingcod.
4. Collect environmental data using temperature-depth recorders and vertical CTD (conductivity, temperature, depth) casts.

COLLABORATORS
Canadian Coast Guard

FOR MORE INFORMATION
Inside south hard bottom longline surveys

Hard bottom longline hook survey
Northern inside waters

CCGS Neocaligus.
© Fisheries and Oceans Canada

Tiger rockfish (Sebastes nigrocinctus).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARGF_03b

CATEGORY
Population and ecosystem assessments

DATES
June 30 to July 14, 2026

START YEAR
2003

RECURRENCE
Every 2 years

LOCATIONS
Queen Charlotte Strait, Johnstone Strait, Discovery Passage, Discovery Islands archipelago, Strait of Georgia, coastal inlets of British Columbia

VESSEL
CCGS Neocaligus

EMAIL
Matthew.Siegle@dfo-mpo.gc.ca

PHONE
250-327-1398

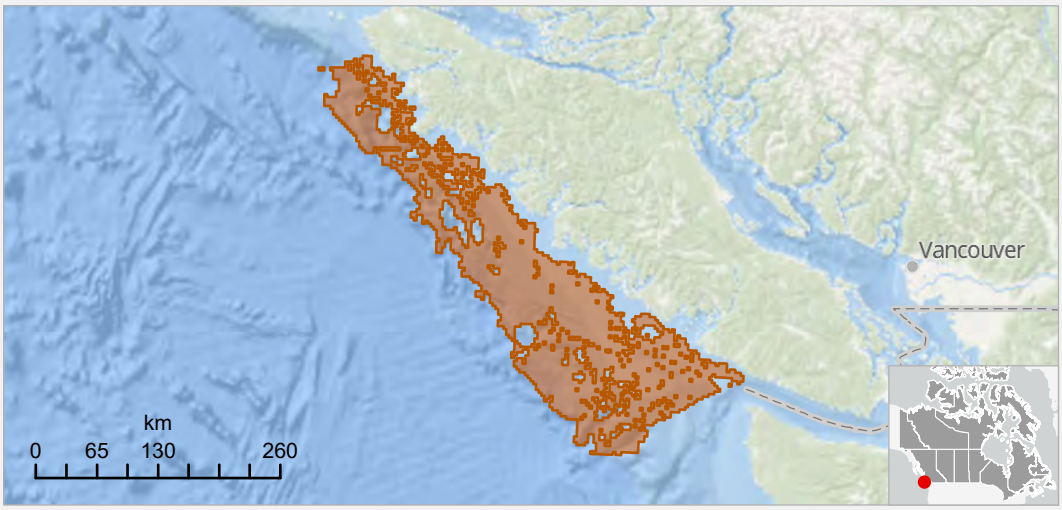
DESCRIPTION
This fishing survey uses standardized longline hook gear to provide relative abundance indices for commonly caught species, distributional and occurrence data for all other species, and detailed biological data for inshore groundfish species. The survey takes place at approximately 70 randomly selected locations in the northern inside waters of British Columbia. These data are incorporated into stock assessments, status reports, and research publications.

OBJECTIVES
1. Collect detailed species composition data from each set.
2. Collect detailed size and sex composition for all species.
3. Collect ageing structures and tissue samples from inshore rockfish species and lingcod.
4. Collect environmental data with temperature-depth recorders on fishing gear, and vertical CTD (conductivity, temperature, depth) casts.

COLLABORATORS
Canadian Coast Guard

FOR MORE INFORMATION
Inside north hard bottom longline surveys

Synoptic bottom trawl survey
West coast of Vancouver Island



CCGS Sir John Franklin.
© Fisheries and Oceans Canada

Arrowtooth flounder (Atheresthes stomias).
© Kristina Anderson (Fisheries and Oceans Canada)

UNIQUE ID
PAC_StARGF_04

CATEGORY
Population and ecosystem assessments

DATES
May 12 to June 18, 2026

START YEAR
2004

RECURRENCE
Every 2 years

LOCATIONS
West coast of Vancouver Island

VESSEL
CCGS Sir John Franklin

EMAIL
Malcolm.Wyeth@dfo-mpo.gc.ca

PHONE
778-268-1184

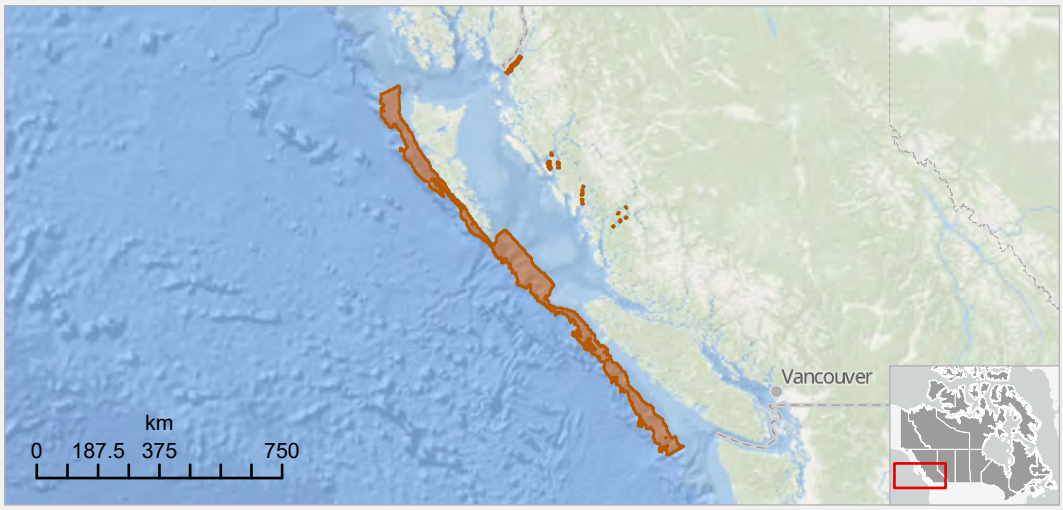
DESCRIPTION
This fishing survey uses bottom trawl gear to provide relative abundance indices for commonly caught species, distributional and occurrence data for all other species, and detailed biological data from groundfish species. These data are incorporated into stock assessments, status reports, and research publications. Each year, approximately 175 randomly selected locations are fished.

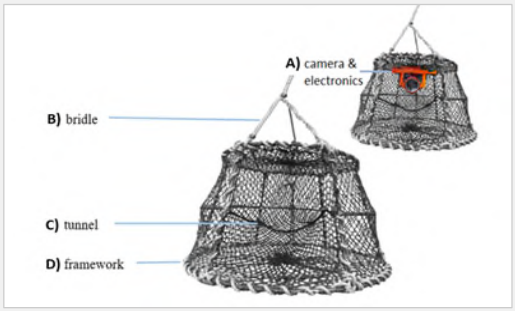
OBJECTIVES
1. Collect detailed species composition data from each set.
2. Collect detailed size and sex composition for all species.
3. Collect ageing structures and tissue samples from selected species.
4. Collect environmental data including temperature, conductivity, and dissolved oxygen from recorders attached to fishing gear.

COLLABORATORS
Canadian Coast Guard

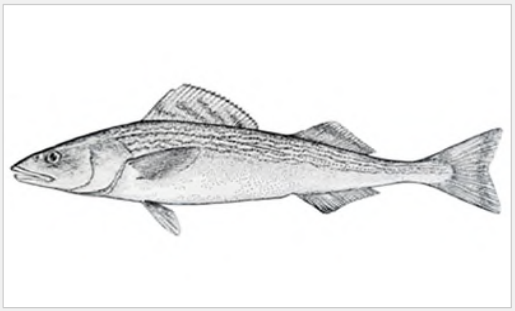
FOR MORE INFORMATION
West coast Vancouver Island synoptic bottom trawl survey

Sablefish research and assessment survey
Coastal British Columbia





Trap gear: A) electronics, B) bridle, C) tunnel, D) framework.



Sablefish (Anoplopoma fimbria).

UNIQUE ID
PAC_StARGF_06

CATEGORY
Population and ecosystem assessments

DATES
September 29 to November 19, 2026

START YEAR
2003

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Haida Gwaii, Queen Charlotte Sound, Portland Inlet, Lewis Passage, Squally Channel, Whale Channel, Finlayson Channel, Dean Channel, Burke Channel; West coast of Vancouver Island

VESSEL
Chartered commercial trap vessel

EMAIL
Malcolm.Wyeth@dfo-mpo.gc.ca

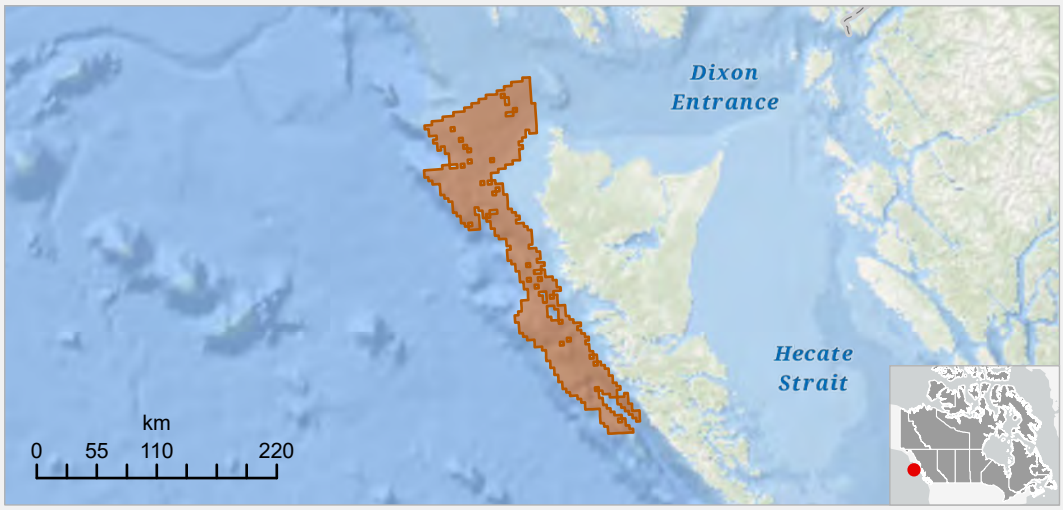
DESCRIPTION
This fishing survey uses standardized longline trap gear to capture Sablefish for tag and release, and to provide a stock abundance index. Detailed biological data are also collected from sablefish and selected rockfish species. Each year, approximately 90 randomly selected offshore locations and 5 specific sites in mainland inlets are fished. These data provide annual estimates of harvestable biomass that inform the fishery, and are incorporated into stock assessments, status reports, and research publications.

OBJECTIVES
1. Collect detailed species composition data from each set.
2. Collect size and sex composition data, ageing structures, and tissue samples from sablefish and offshore rockfish species.
3. Collect environmental data from temperature-depth recorders attached to the fishing gear.

COLLABORATORS
Wild Canadian Sablefish Ltd.

FOR MORE INFORMATION
Sablefish offshore survey data

Synoptic bottom trawl survey
West coast of Haida Gwaii



Longnose skate (Raja rhina).
© Fisheries and Oceans Canada

Aleutian skate (Bathyraja aleutica).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARGF_08

CATEGORY
Population and ecosystem assessments

DATES
August 25 to September 30, 2026

START YEAR
2006

RECURRENCE
Every 2 years

LOCATIONS
West coast of Haida Gwaii

VESSEL
Chartered commercial trawl vessel

EMAIL
Malcolm.Wyeth@dfo-mpo.gc.ca

PHONE
778-268-1184

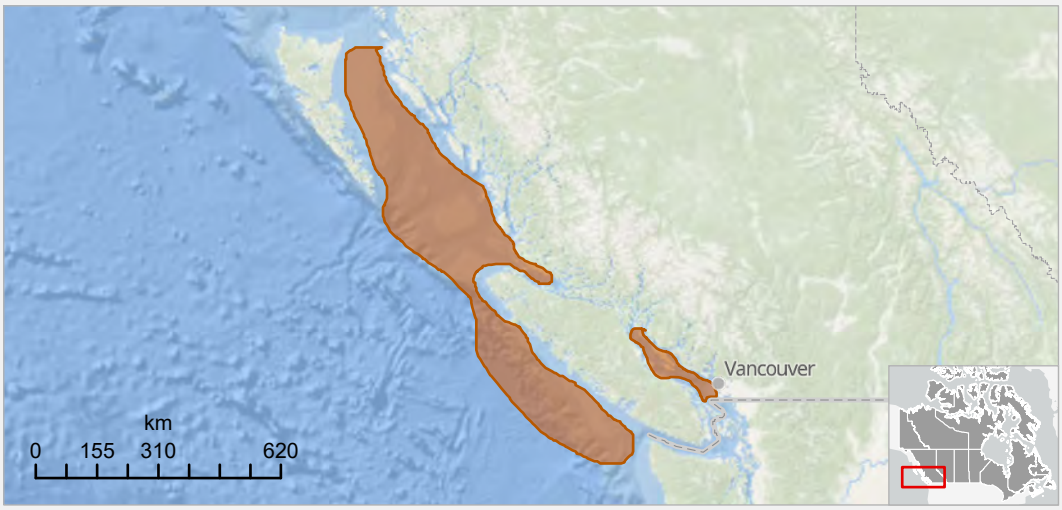
DESCRIPTION
This fishing survey uses bottom trawl gear to provide relative abundance indices for commonly caught species, distributional and occurrence data for all other species, and detailed biological data from groundfish species. These data are incorporated into stock assessments, status reports, and research publications. Each year, approximately 125 randomly selected locations are fished.

OBJECTIVES
1. Collect detailed species composition data from each set.
2. Collect detailed size and sex composition for all species.
3. Collect ageing structures and tissue samples from selected species.
4. Collect environmental data including temperature, conductivity, and dissolved oxygen from recorders attached to fishing gear.

COLLABORATORS
Canadian Groundfish Research and Conservation Society

FOR MORE INFORMATION
Haida Gwaii synoptic bottom trawl survey

Winter groundfish biological sampling
Coastal British Columbia



CCGS Sir John Franklin.

Greenspotted Rockfish (Sebastes chlorostictus).

UNIQUE ID
PAC_StARGF_11

CATEGORY
Population and ecosystem assessments

DATES
February 5 to 16, 2027

START YEAR
2026

RECURRENCE
Never

LOCATIONS
Dixon Entrance, Hecate Strait, Queen Charlotte Sound; Queen Charlotte Strait, Strait of Georgia, west coast of Vancouver Island

VESSEL
CCGS Sir John Franklin

EMAIL
Malcolm.Wyeth@dfo-mpo.gc.ca

PHONE
778-268-1184

DESCRIPTION
This survey will fish targeted locations to collect biological samples from selected groundfish species. Age-at-maturity data are critical for fisheries stock assessments, and sampling during winter spawning allows for more accurate discrimination between mature and immature fish. Further, genetic samples collected from these spawning aggregations allow for stock structure analyses that rely on samples from the same stock.

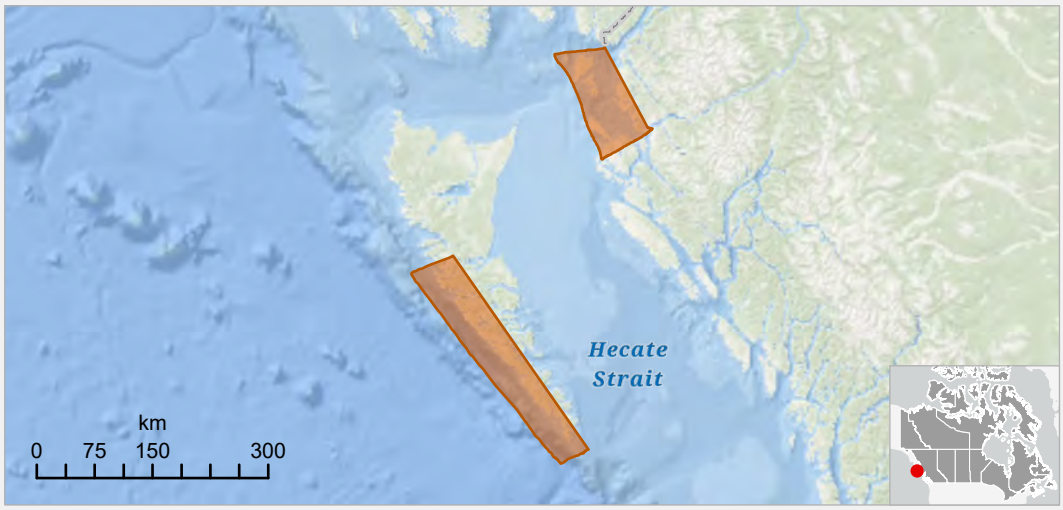
OBJECTIVES
1. Conduct targeted bottom trawl tows at various locations throughout the British Columbia coast.
2. Collect biological samples from select species during winter spawning periods.

COLLABORATORS
Canadian Coast Guard

FOR MORE INFORMATION
Please contact Malcolm.Wyeth@dfo-mpo.gc.ca.

Northern abalone index sites survey

Haida Gwaii and north coast of British Columbia



CCGS Vector.
© Fisheries and Oceans Canada

Northern abalone (Haliotis kamtschatkana).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARMI_01

CATEGORY
Population and ecosystem assessments

DATES
April 15 to May 5, 2026

START YEAR
1978

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Haida Gwaii, north coast of British Columbia within Pacific Fishery Management Areas 3 (Portland Inlet) and 4 (Chatham Sound, Porcher Island)

VESSEL
CCGS Vector

EMAIL
Erin.Herder@dfo-mpo.gc.ca

PHONE
250-327-9711

DESCRIPTION

Northern abalone (Haliotis kamtschatkana) are a species of mollusc listed as endangered under the federal Species at Risk Act. These index site surveys, initiated in 1978, rotate through various locations in British Columbia. Surveys are used to inform assessments of northern abalone.

OBJECTIVES

1. Conduct SCUBA dive surveys at index sites to collect information on density, size, recruitment, genetics, and habitat.

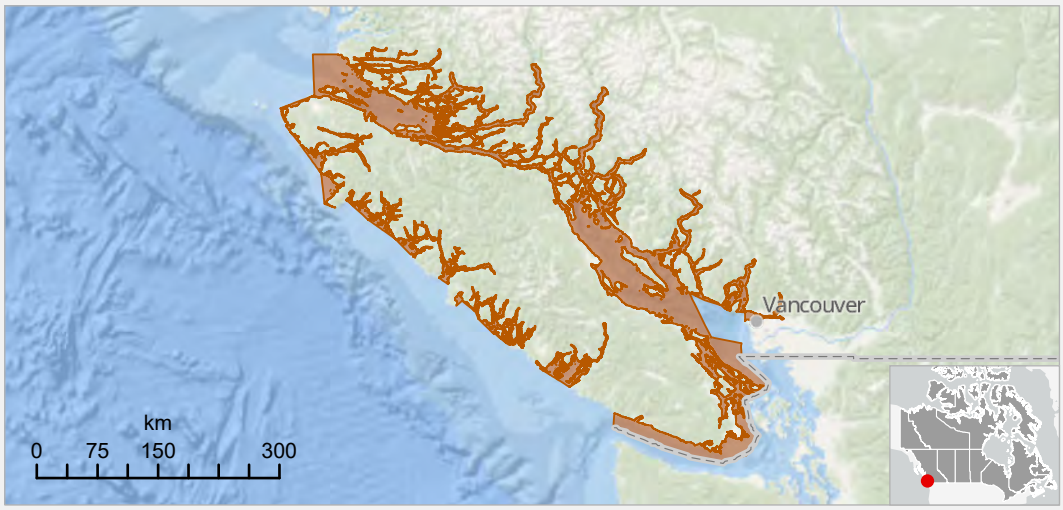
COLLABORATORS

Kitsumkalum First Nation, Lax Kw'alaams Band, Metlakatla First Nation, Council of the Haida Nation, Canadian Coast Guard

FOR MORE INFORMATION

Northern abalone survey - 2021 (en anglais seulement)

Intertidal clam monitoring
South coast of British Columbia



Butter, Manila, Pointed Macoma, and Littleneck clams.
© Alexander Dalton (Fisheries and Oceans Canada)

Digging for clams in a quadrat.
© Amy Ganton (Fisheries and Oceans Canada)

UNIQUE ID
PAC_StARMI_03

CATEGORY
Population and ecosystem assessments

DATES
May 16 to August 15, 2026

START YEAR
2021

RECURRENCE
Annually - Ongoing

LOCATIONS
Queen Charlotte Sound; Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island, coastal inlets of British Columbia

VESSEL
Small vessels

EMAIL
Alexander.Dalton@dfo-mpo.gc.ca

PHONE
250-327-8724

DESCRIPTION

Under the revised Fisheries Act, some component of the intertidal clams (manila, butter, and littleneck) fishery in the south coast of British Columbia may require biological reference points to ensure they can be maintained at sustainable levels. These surveys collect data at select indicator beaches to establish biological reference points and measure clam abundance. Survey locations rotate through Clam Management Areas A through G in southern British Columbia.

OBJECTIVES

1. Collect population dynamics data (for example, counts, weights, lengths, ages, etc.) at indicator beaches.
2. Establish a time series of abundance.
3. In the next few years, develop limit reference points and monitor the abundance of clam stocks.

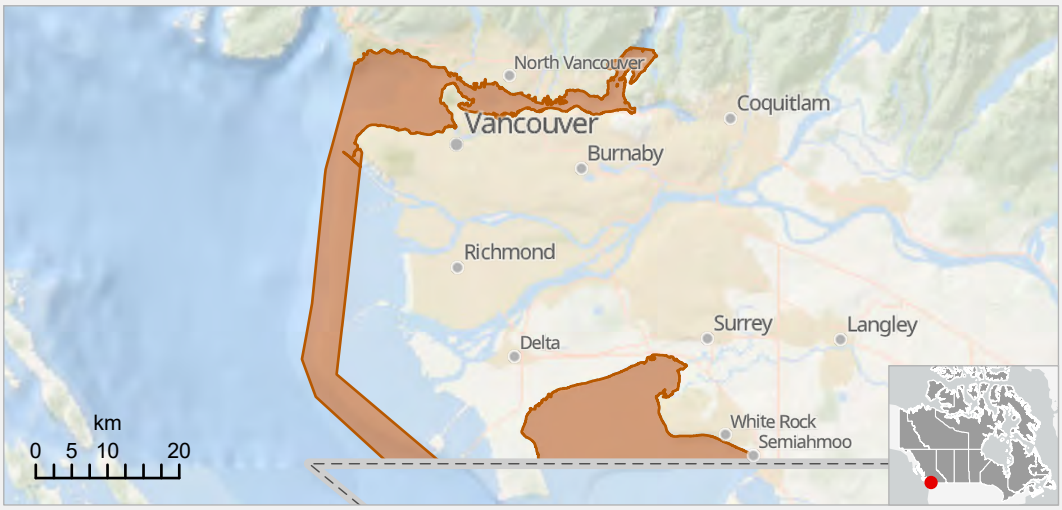
COLLABORATORS

Cowichan Tribes, Ka:'yu:'k't'h'/Che:k'tles7et'h' First Nations, Malahat Nation, Tla'amin Nation, Island Marine Aquatic Working Group, Uu-a-thluk Nuu-chah-nulth Fisheries

FOR MORE INFORMATION

Development of the Intertidal Clam Monitoring Program (en anglais seulement)

Crab assessment survey
Strait of Georgia



UNIQUE ID
PAC_StARMI_05

CATEGORY
Population and ecosystem assessments

DATES
May 5 to 16 and October 14 to 25, 2026

START YEAR
1988

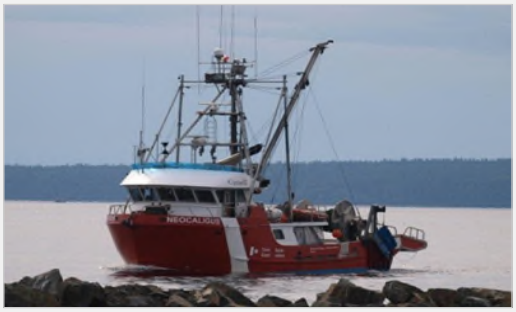
RECURRENCE
Annually - Ongoing

LOCATIONS
Strait of Georgia; səlilw̓ət (Burrard Inlet and Indian Arm), Boundary Bay

VESSEL
CCGS Neocaligus

EMAIL
Brendan.Aulthouse@dfo-mpo.gc.ca

PHONE
250-756-3367



CCGS Neocaligus.
© Fisheries and Oceans Canada

Adult male Dungeness crab (Cancer magister).
© Fisheries and Oceans Canada

DESCRIPTION

Pre- and post-commercial fishery Dungeness crab surveys in Crab Management Areas I (Fraser River delta) and J (Boundary Bay) to continue the long term historic record of crab catch per unit effort (CPUE). The survey also collects data on population structure between years by documenting variability in moult times, breeding times, egg extrusion/release, mortality rates, and trap bycatch. These surveys have been used to investigate the effects of soak duration, bait and trap type, escape port efficiency, and provide tissue samples for toxicological and genetic analyses.

OBJECTIVES

1. Collect pre- and post-fishery Dungeness crab biological information (e.g., sex ratios, condition, size, distribution).

COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Pacific Region crab fishery

Prawn Assessment Survey
Howe Sound

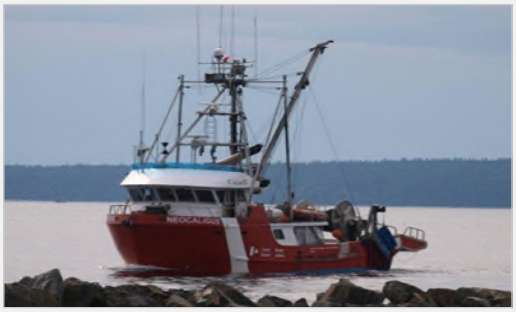
UNIQUE ID
PAC_StARMI_06

CATEGORY
Population and ecosystem assessments

DATES
November 3 to 13, 2026;
February 2 to 12, 2027

START YEAR
2001

RECURRENCE
Annually - Ongoing



CCGS Neocaligus.

Spot prawns (Pandalus platyceros).

LOCATIONS
Howe Sound

VESSEL
CCGS Neocaligus

EMAIL
Kyle.Krumsick@dfo-mpo.gc.ca

PHONE
778-268-6017

DESCRIPTION

Prawn assessment trap surveys provide estimates of key biological parameters (e.g., natural mortality, recruitment, spawner abundance), which are used in the development and refinement of the spawner escapement index for prawns.

This index forms the basis of the assessment and management of prawn stocks. The prawn survey in Howe Sound is an ongoing assessment program that provides data necessary to assess and manage all prawn stocks along the British Columbia coast.

OBJECTIVES

1. Collect detailed catch, size, and sex data for estimating recruitment parameters.
2. Monitor stock response of escapement-based thresholds.

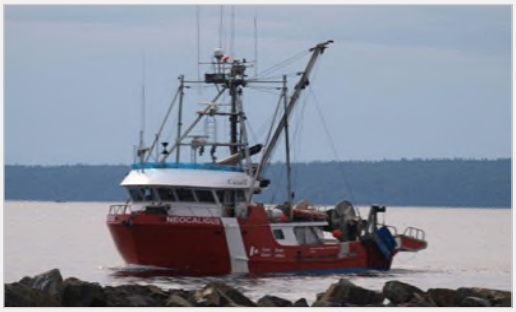
COLLABORATORS

Squamish Nation, Canadian Coast Guard, Simon Fraser University

FOR MORE INFORMATION

Pacific prawn and shrimp fisheries

Shrimp assessment survey
Strait of Georgia



CCGS Neocaligus.
© Fisheries and Oceans Canada

Smooth pink shrimp (Pandalus jordani).
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARMI_07

CATEGORY
Population and ecosystem assessments

DATES
June 1 to 18, 2026

START YEAR
1998

RECURRENCE
Annually - Ongoing

LOCATIONS
Strait of Georgia, Juan de Fuca Strait; Howe Sound, Burrard Inlet

VESSEL
CCGS Neocaligus

EMAIL
Virginia.Noble@dfo-mpo.gc.ca

PHONE
N/A

DESCRIPTION
Shrimp assessment surveys will estimate the abundance of smooth pink shrimp, spiny pink shrimp, and sidestripe shrimp stocks in the following Shrimp Management Areas: FR (Fraser River), 14, GSTE (Georgia Straight East), 16, 18, and 19. The results from these surveys are used to track long-term trends in abundance of shrimp stocks, and to set annual quotas for the commercial shrimp trawl fishery.

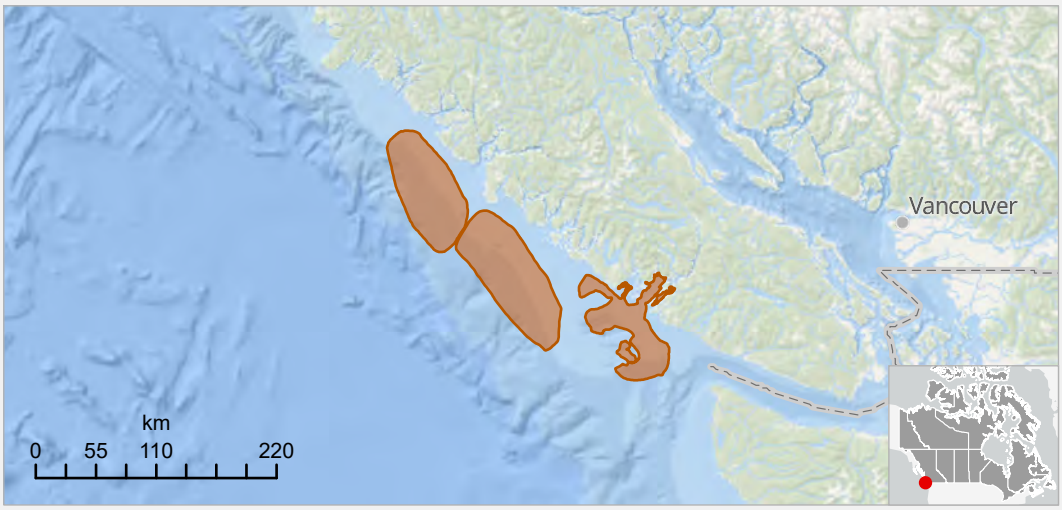
OBJECTIVES
1. Conduct fishery independent surveys using bottom trawl gear to determine stock status of pink and sidestripe shrimp.
2. Maintain pink shrimp and sidestripe shrimp abundance index time series for monitoring trends in abundance.
3. Collect species distribution and abundance information on other fish and invertebrate species.

COLLABORATORS
Canadian Coast Guard

FOR MORE INFORMATION
Pacific prawn and shrimp fisheries

Small-mesh multispecies bottom trawl survey

West coast of Vancouver Island



UNIQUE ID
PAC_StARMI_08

CATEGORY
Population and ecosystem assessments

DATES
April 16 to May 11, 2026

START YEAR
1973

RECURRENCE
Annually - Ongoing

LOCATIONS
West coast of Vancouver Island (Shrimp Management Areas: 125OFF, 124OFF, 23OFF, 21OFF, 23IN)

VESSEL
CCGS Sir John Franklin

EMAIL
Virginia.Noble@dfo-mpo.gc.ca

PHONE
N/A

CCGS Sir John Franklin.
© Fisheries and Oceans Canada

Smooth pink shrimp (Pandalus jordani).
© A. Denbigh

DESCRIPTION

This small-mesh multispecies survey was initiated in 1973, and now serves as one of the longest continuous bottom trawl time series for monitoring a diversity of fish and invertebrate species on the west coast of British Columbia. Data gathered from this survey provide pink shrimp stock status for management of the commercial shrimp trawl fishery, inform the annual State of the Oceans report, as well as inform stock assessments for groundfish and pelagic fish species.

OBJECTIVES

1. Index the abundance of pink shrimp off the west coast of Vancouver Island using a fishery independent trawl survey.
2. Conduct multispecies indexing of other invertebrates, pelagic fish, and groundfish species.

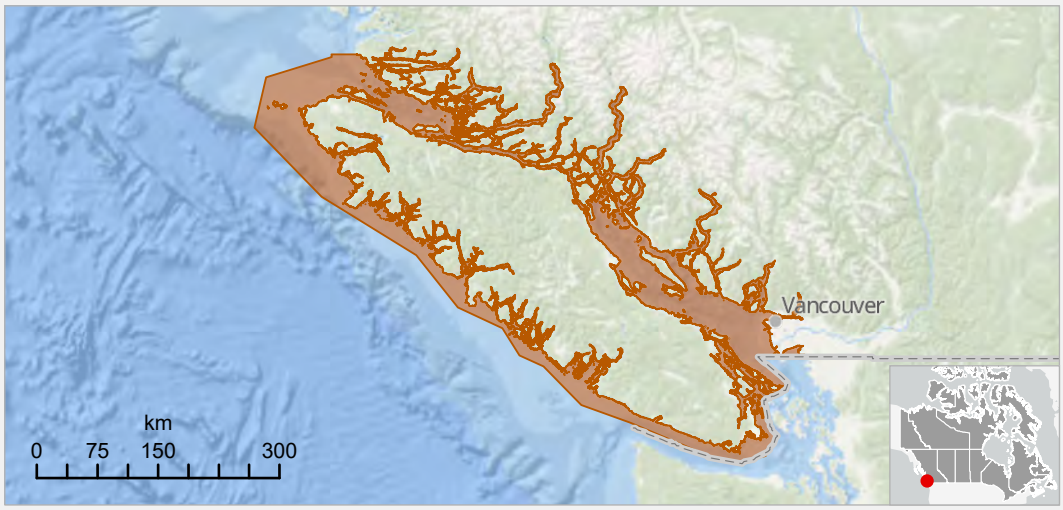
COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Please contact Virginia.Noble@dfo-mpo.gc.ca.

Multispecies benthic invertebrate monitoring
South coast of British Columbia



UNIQUE ID
PAC_StARMI_09

CATEGORY
Population and ecosystem assessments

DATES
September 11 to October 7 2026

START YEAR
2016

RECURRENCE
Annually - Ongoing

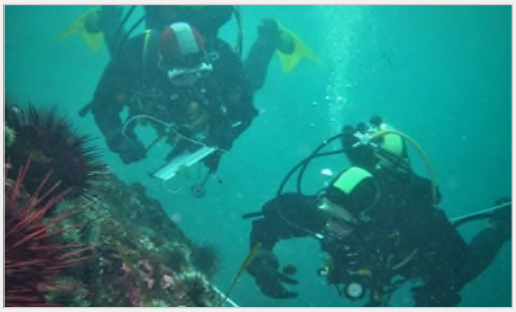
LOCATIONS
Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island, coastal inlets of British Columbia; Howe Sound, səlilw̓ət (Burrard Inlet and Indian Arm), Boundary Bay

VESSEL
CCGS Vector

EMAIL
Christine.Hansen@dfo-mpo.gc.ca

PHONE
778-268-2079

CCGS Vector.
© Fisheries and Oceans Canada



Divers collecting invertebrate, algae, and substrate data.
© Erin Herder (Fisheries and Oceans Canada)

DESCRIPTION

These multispecies benthic invertebrate SCUBA surveys collect size and abundance data on sea urchins, sea cucumbers, pycnopodia sea stars and northern abalone (a species at risk), as well as benthic habitat data on algae and substrate. The data are used for invertebrate stock assessments, habitat mapping, species distribution modeling, emergency response planning and Marine Protected Areas monitoring.

OBJECTIVES

1. Collect the data necessary to evaluate stock status relative to reference points for selected benthic invertebrate species.
2. Collect long-term data to monitor benthic invertebrate populations and their habitats over time.

COLLABORATORS

Coastal First Nations in southern British Columbia, Canadian Coast Guard

FOR MORE INFORMATION

Multispecies Benthic Marine Invertebrate Dive Survey Program

Shrimp assessment survey
Chatham Sound and Clio Channel

UNIQUE ID
PAC_StARMI_10

CATEGORY
Population and ecosystem assessments

DATES
September 9 to October 1, 2026

START YEAR
1998

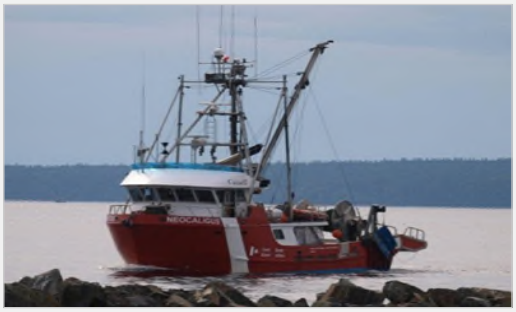
RECURRENCE
Every 2 years

LOCATIONS
Chatham Sound (Pacific Fishery Management Area - PFMA 4), Clio Channel (PFMA sub-area 12-26)

VESSEL
CCGS Neocaligus

EMAIL
Virginia.Noble@dfo-mpo.gc.ca

PHONE
N/A



CCGS Neocaligus.

Smooth pink shrimp (Pandalus jordani).

DESCRIPTION

Shrimp assessment surveys estimate the abundance of shrimp stocks (smooth and spiny pink shrimp, and sidestripe shrimp) in select Shrimp Management Areas. The results from these surveys are used to track long-term trends in abundance of shrimp stocks and to set annual quotas for the commercial shrimp trawl fishery.

OBJECTIVES

1. Conduct fishery independent surveys of shrimp grounds using bottom trawl gear to determine stock status of target species.
2. Maintain pink shrimp and sidestripe shrimp abundance index time series for monitoring trends in abundance.
3. Collect species distribution and abundance information for other fish and invertebrate species.

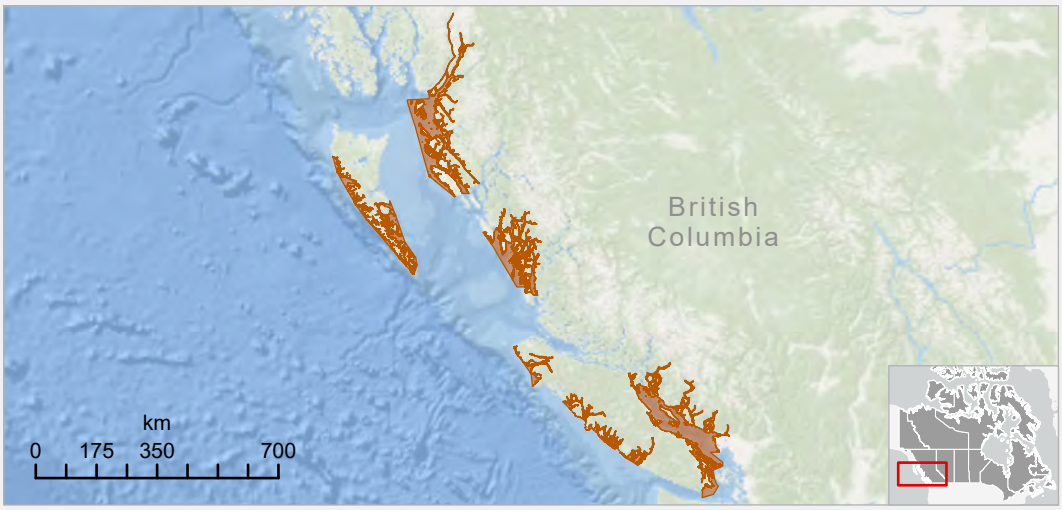
COLLABORATORS

Canadian Coast Guard

FOR MORE INFORMATION

Please contact Virginia.Noble@dfo-mpo.gc.ca.

Pacific herring biological sampling surveys
Coastal British Columbia



Seine vessel.
© Fisheries and Oceans Canada

Sampling Pacific herring (Clupea pallasii) scales.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARQAM_01

CATEGORY
Population and ecosystem assessments

DATES
April 1 to 30, 2026; March 1 to 31, 2027

START YEAR
1951

RECURRENCE
Annually - Ongoing

LOCATIONS
Haida Gwaii, Dixon Entrance, Chatham Sound, Prince Rupert Harbour, Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; Discovery Passage, Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island; Howe Sound, səlilw̓ət (Burrard Inlet and Indian Arm)

VESSEL
Commercial seine vessels, dive skiffs, float planes

EMAIL
Jaclyn.Cleary@dfo-mpo.gc.ca

PHONE
250-616-7009

DESCRIPTION

These surveys aim to collect biological samples from pre-spawning aggregations of Pacific herring in nearshore habitats throughout the British Columbia coast. Monitoring of herring biology helps track changes in age and growth, which informs stock status.

OBJECTIVES

1. Identify pre-spawning aggregations of herring in each stock area using vessel based sounders.
2. Collect samples (~100 herring) using a purse seine and hoop net (or use a cast net to sample herring in nearshore habitats).
3. Transport herring samples to laboratory where data on age, length, weight, sex, and maturity is gathered.
4. Use equations to estimate the size and age distribution of herring for each area.
5. Provide data for stock assessment.

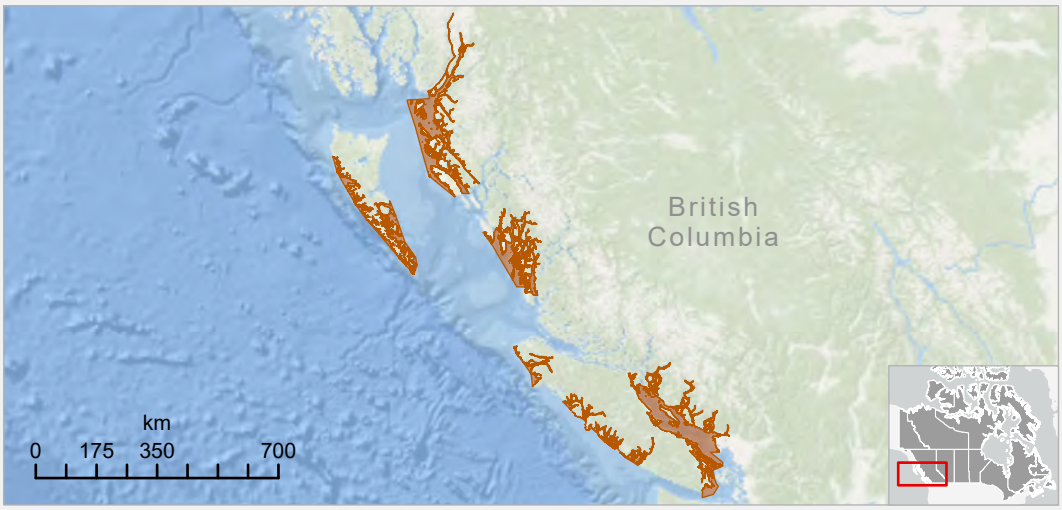
COLLABORATORS

Ehattesaht/Chinehkint First Nation, Heiltsuk Nation, Hesquiaht First Nation, Huu-ay-aht First Nations, Kitasoo/Xai’xais, Lax Kw'alaams Band, Mowachaht-Muchalaht First Nation, Nuchatlaht Tribe, Tla'amin Nation, Toquaht Nation, Wuikinuxv First Nation, A-Tlegay Fisheries Society, Uu-a-thluk Nuu-chah-nulth Fisheries, Herring Conservation and Research Society

FOR MORE INFORMATION

Herring biosample database

Pacific herring spawn surveys
Coastal British Columbia



SCUBA divers measuring herring spawn.
© Fisheries and Oceans Canada

Pacific herring (Clupea pallasii) spawn.
© Fisheries and Oceans Canada

UNIQUE ID
PAC_StARQAM_02

CATEGORY
Population and ecosystem assessments

DATES
April 1 to 30, 2026; March 1 to 31, 2027

START YEAR
1951

RECURRENCE
Annually - Ongoing

LOCATIONS
Haida Gwaii, Dixon Entrance, Chatham Sound, Prince Rupert Harbour, Hecate Strait, Queen Charlotte Sound, coastal inlets of British Columbia; Discovery Passage, Strait of Georgia, Juan de Fuca Strait, west coast of Vancouver Island; Howe Sound, Strait of Georgia, səlilw̓ət (Burrard Inlet and Indian Arm)

VESSEL
Seine vessels, dive skiffs, small charter vessels, float planes

EMAIL
Jaclyn.Cleary@dfo-mpo.gc.ca

PHONE
250-616-7009

DESCRIPTION
Monitoring of Pacific herring spawn (egg deposition) helps to track changes in stock abundance. These surveys aim to measure herring spawn on kelps and eelgrasses in intertidal and subtidal habitats using SCUBA surveys.

OBJECTIVES
1. Identify herring spawning activity from float planes and from small First Nation vessel charters.
2. Use dive surveys to confirm the presence of herring eggs.
3. Measure herring egg layers, substrate type, and coverage within quadrats placed along transects perpendicular to shore.
4. Calculate egg biomass for each spawn, and from that, use equations to estimate the number of adult spawners for each area.
5. Map herring spawning and provide data for stock assessment.

COLLABORATORS
Ehattesaht/Chinehkint First Nation, Gwa'sala Nakwaxda'xw, Heiltsuk Nation, Hesquiaht First Nation, Huu-ay-aht First Nations, Kitasoo/Xai'xais, Lax Kw'alaams Band, Mowachaht-Muchalaht First Nation, Nuchatlaht Tribe, Toquaht Nation, A-Tlegay Fisheries Society, Council of the Haida Nation, Musgamagw Dzawada'enuxw Tribal Council, Uu-a-thluk Nuu-chah-nulth Fisheries, Herring Conservation and Research Society

FOR MORE INFORMATION
Pacific herring spawn index data