



Community Fishers

Be part of community-based monitoring in Canada

Be part of ocean protection in Canada

Coastal communities throughout Canada can monitor ocean conditions and take a leadership role in protecting their coastal environment through the Community Fishers Program supported by Ocean Networks Canada (ONC).

Community Fishers are members of participating communities who are trained to collect and upload high-quality ocean data into the [ONC Oceans 3.0 Data Portal](#). Oceans 3.0 provides access to ocean data from the world's longest coastline, Canada, and it is used by more than 32,000 researchers, communities, and decision-makers around the world.

The data collected by Community Fishers provides important information on how seawater temperature, oxygen, and salinity levels are changing at different depths, and helps monitor climate impacts and environmental changes that can affect ocean health and marine habitat.

ONC Community Fishers partners are monitoring their local ocean conditions at more than 350 locations on the Pacific, Atlantic, and Arctic coasts of Canada, by boat or snowmobile. Be part of this growing network of community scientists.

What's involved

The kits used for the Community Fishers Program include a CTD, which is an oceanographic instrument that measures seawater conductivity and temperature relative to depth with additional sensors to measure parameters of interest to the community. Paired with each CTD is a smart tablet that is equipped with the ONC Community Fishers App, which enables easy instrument operation and data transfer to Oceans 3.0. Additional data support is provided by ONC.

ONC trains community members to collect data using a CTD and the app through a two-day [Community Fishers Training Program](#), which is certified and offered by the University of Victoria (UVic). The program is accredited by the [United Nations Institute for Training and Research](#) in partnership with UVic. The cost is typically included in the project funding.

Community Fishers partnerships in action

1. A community partners with ONC. Community members receive formal training and support to become new Community Fishers.
2. The partners custom co-design an oceanographic monitoring plan that meets local needs and interests.
3. Partner communities are equipped with a CTD and paired tablet with app.
4. The CTD is lowered through the seawater while the tablet collects geolocation and timestamp data.
5. Community Fishers conduct sampling on their own schedule and upload the data to Oceans 3.0 after every sample date.
6. Data undergoes automated quality assurance, quality control (QA/QC), and processing.
7. ONC Data Specialists perform manual in-depth data QA/QC.
8. Processed data are made publicly available on Oceans 3.0 within 48 hours of being uploaded.

Images: Page 1/Page 2 (bubble) These image are co-owned by the Nunatsiavut Government and Ocean Netowrks Canada, an initiative of the University of Victoria, who are working in partnership to support community-based ocean research initiatives. This specific project was an early-career training opportunity in collaboration with the Ocean Frontiers Institute's Sustainable Nunatsiavut Futures project.



Seamless data transfer: ONC Community Fishers App

ONC's Community Fishers App has simplified the collection and archiving of ocean data. The app has opened a shared gateway for marine stewards, fishers, vessel operators, and ocean enthusiasts alike to record high quality oceanographic data relative to depth in coastal waters along Canada's 243,042 kilometres of coastline. Everyone can explore these data in the [Geospatial Map](#), one of the interactive data visualization products on Oceans 3.0 that displays high-resolution water column profiles.

Community led, community driven

Coastal communities are the knowledge keepers and stewards of their marine territories. Indigenous communities have seen the changes since time immemorial and know the challenges their environments are facing.

The community-led design of the Community Fishers Program recognizes the immense value of that knowledge and pairs it with oceanographic instruments, training, and scientific support. This means that the high quality data being collected are relevant to the local research interests as well as contribute to wider ocean science knowledge. A fundamental feature of Community Fishers partnerships is data ownership, control, and data attribution by the communities conducting the research.

In partnership for a healthy ocean future

The Community Fishers Program was launched in 2015 in partnership with the Pacific Salmon Foundation to better understand the decline in salmon in the Salish Sea.

Since then, the program has spread beyond its Pacific roots to the Arctic and Atlantic coasts. ONC has partnered with the Pacheedaht, T'Sou-ke, Tsleil-Waututh, Kitsumkalum, and Snuneymuxw First Nations, Maritime Aboriginal Peoples Council, Nunatsiavut Government (Labrador), Iqaluit community, Nunavut Arctic College, and Fisheries and Oceans Canada.

Communities and organizations can independently acquire funding for their own marine monitoring initiatives or reach out to ONC at training@oceannetworks.ca to discuss options.



Iqaluit community members check the CTD sensors in the Arctic.



Pacheedaht First Nation community members measure water column data in the Strait of Georgia during Community Fishers training.



For more information
about the Community
Fishers Program visit



Explore Oceans 3.0 & Geospatial Map at
<https://data.oceannetworks.ca/>
<https://data.oceannetworks.ca/GeospatialMap>