



CIFAL Victoria - Oceanographic Water Properties Training Program



 : 30 12 2023

-  : Course
-  : Victoria, Canada
-  : 1 1 2023 to 31 12 2023
-  : 2 Days
-  : Decentralize Cooperation Programme
-  : <https://continuingstudies.uvic.ca/science-and-the-environment/programs/communit...>
-  : US\$0.00
-  email: majerbi@uvic.ca



With increased marine shipping, coastal development and threats from climate change, the need to monitor coastal and offshore waters for changes is more important than ever before.

This program empowers community members to easily contribute high-quality, continuous data on water properties to help better understand and inform policy on fish habitat and the changes that may be impacting the ocean environment over time.

Coastline monitoring has historically relied on research vessels with expert staff, both of which are commonly in short supply and are expensive. These factors can result in water property measurements taken only a few times a year in spot locations.

In response to this challenge, [Ocean Networks Canada](#) (ONC) developed the Community Fishers mobile app that provides a practical, user-friendly tool for collecting data and accessing it via the Oceans 3.0 Data Portal.

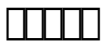
Consisting of a mobile application that connects wirelessly to a conductivity temperature depth (CTD) instrument and additional sensors, Community Fishers enables an organization or community to engage all vessels of opportunity (such as fishing and recreational boats), allowing for more flexible, frequent and locally relevant sampling of water properties without the cost or requirement of utilizing specialized research vessels and scientific staff.



Upon completion of this training program, participants will be able to:

- understand and communicate the importance of instrumenting our oceans and coastal regions
- identify key oceanographic parameters and understand their significance to ocean life and marine health
- accurately describe the theory of operation and application of a CTD, oxygen optode, fluorometer, turbidity sensor and CDOM sensor in monitoring marine waters

- plan and conduct an effective sampling strategy, and sensor deployment based on specified deliverables designed to answer a specific research question
- utilize the Community Fishers app to collect, display, interpret and report sensor data
- identify and troubleshoot impacts on sensor performance and data quality



Classroom

- ○ ■ ■ Introduction to Ocean Networks Canada's cabled observatory infrastructure
- Oceans 3.0 data portal and data tools
- Instrument overview: what the sensors measure and how the data can be used
- Overview of the Community Fishers tool kit and app
- Data retrieval and visualization

Field

- ○ ■ ■ Operating and deploying the instrument
- Viewing data on and sending data from the app



Through a combination of classroom lectures, learning activities and hands-on practice with software, instrumentation and field deployment procedures, students are introduced to both background knowledge and practical applications necessary for accurate and reliable collection of oceanographic water property data.



Coastal communities, Indigenous communities



This training program is designed to complement funded monitoring programs. The funding usually includes a communities/organizations procurement of a multi-parameter sonde (conductivity temperature depth [CTD]) water profiler, their own data management and ONC's scientific support. This training provides the foundation of collecting good quality baseline oceanographic data, along with the practical methodology to operate the CTD and the initial interpretation of the data.