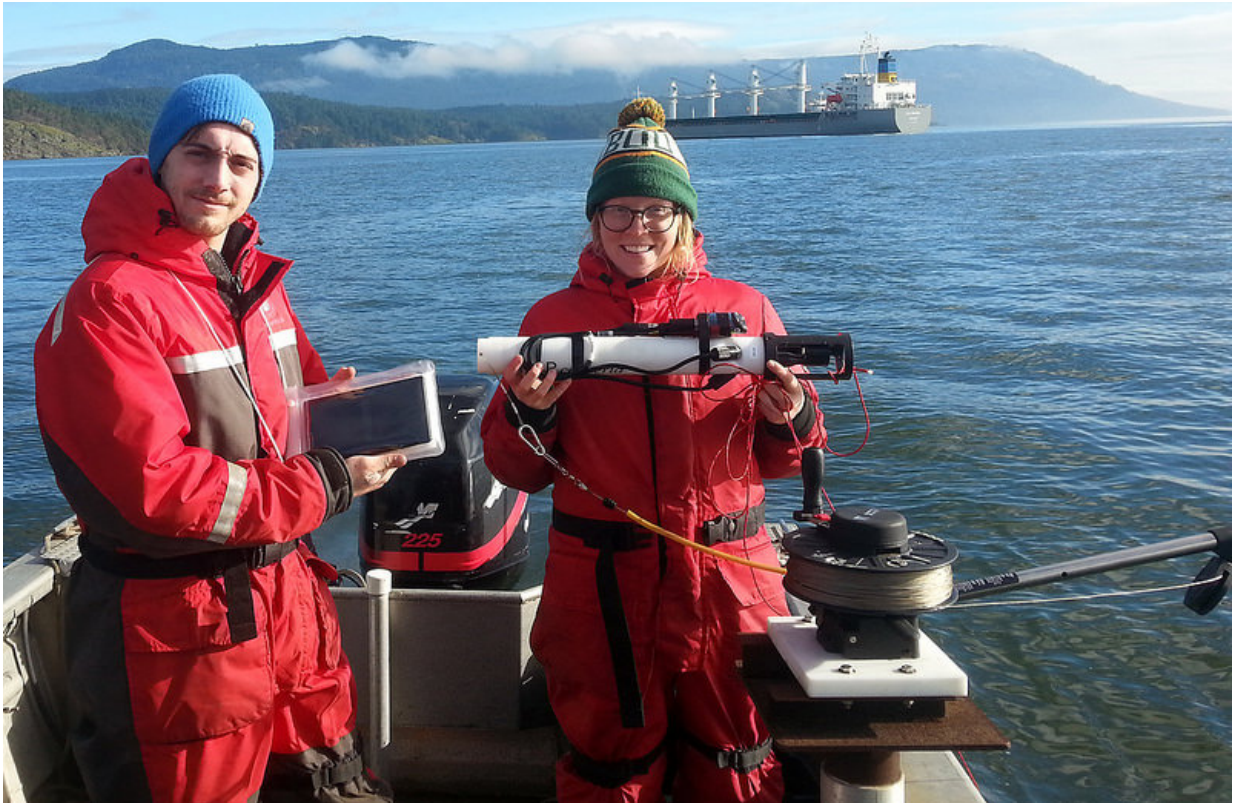


App helps citizen scientists collect ocean data

June 3 2015, by Virginia Keast



Citizen scientists use ONC's Community Fishers App to collect oceanographic data in the Salish Sea. Credit: Ocean Networks Canada

Ocean Networks Canada (ONC) at the University of Victoria and the Pacific Salmon Foundation (PSF) are teaming up with citizen scientists to increase the quality and range of oceanographic data being collected through a new mobile app called Community Fishers.

The app, developed by ONC, allows fishers and volunteer citizens participating in PSF's "citizen science program" to collect data and upload it to ONC's world-leading data management system, Oceans 2.0. From there, the data is archived, processed and visualized for scientists and the public around the world.

"We're thrilled that ONC can exercise its ocean innovation muscles to fill this gap in technology," says Kate Moran, president and CEO of ONC. "This app has the potential to greatly increase the volume of ocean data essential for responsible ocean management."

The app sits on a tablet or smart phone and collects data any place at any time, which the operator transfers via Wi-Fi to Oceans 2.0. The [citizen scientists](#) include active and retired fishermen, vessel operators from Vancouver Island University, and other local mariners.

As part of the US-Canada Salish Sea Marine Survival Project, the PSF is leading Canadian efforts in the Strait of Georgia to understand the causes of declines in coho and chinook salmon. It has rigged nine small privately owned boats with Wi-Fi enabled instruments to continuously measure water variables such as temperature salinity and oxygen content throughout the Strait of Georgia and Juan de Fuca Strait.

Ocean Networks Canada built the app to automatically handle time synchronization, GPS location tracking, simple wireless transfer of data, and much more. The cost of developing the app was shared between PSF and ONC.

"To understand what's limiting Pacific salmon abundance in the Salish Sea, we need a large amount of very detailed data over an extensive period of time and covering a large geographic area," says Brian Riddell, president and CEO of PSF. "This partnership will provide the professional collating and processing of data essential to the success of

our program."

"Canada has by far the longest coastline in the world, yet Canada owns and maintains only a handful of dedicated research vessels to monitor this vast region," says Eddy Carmack, a retired scientist from Fisheries and Oceans Canada who conceived the app idea. "This app will help automate many of the steps involved in data collection, making the process much simpler for volunteers."

The [app](#) was recently chosen as one of the top 12 submissions in The Economist's Ocean Innovation Challenge, which asked for [ocean](#) solutions to help alleviate the tension between growth and sustainability. Community Fishers won the online competition, earning ONC a complimentary seat at the 2015 World Ocean Summit in Portugal this month.

More information: For more information on ONC, visit www.oceannetworks.ca

To learn more about the Salish Sea Marine Survival Project, visit www.marinesurvivalproject.com

Provided by University of Victoria

Citation: App helps citizen scientists collect ocean data (2015, June 3) retrieved 27 April 2024 from <https://phys.org/news/2015-06-app-citizen-scientists-ocean.html>

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