

# Snapshot of ocean science technology in Canada's Pacific



## SAILDRONES

Saildrones are autonomous vessels powered by the sun and wind. They can follow a programmed route or be controlled by satellite as they record ocean, atmosphere, and biological conditions.



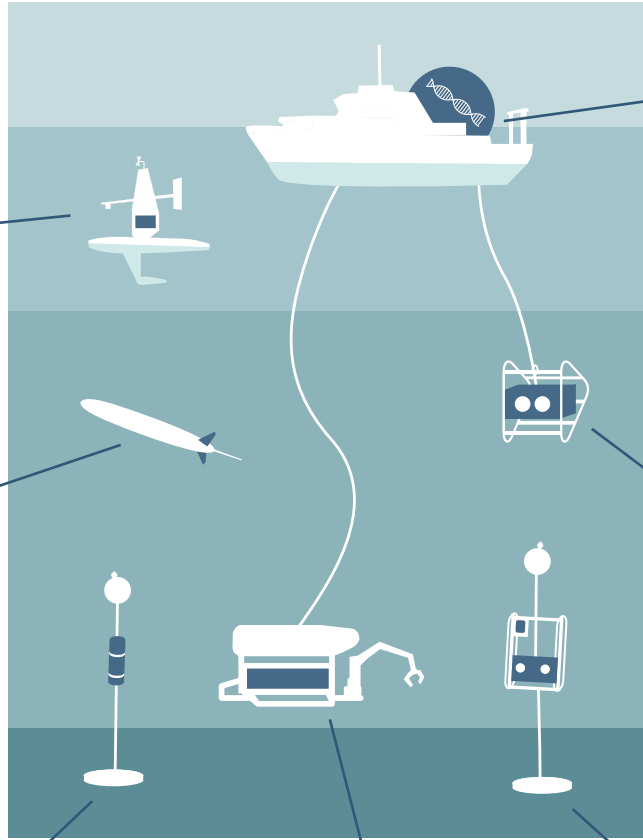
## GLIDERS

Ocean gliders float under the sea's surface, steered independently or by remote control. They measure ocean conditions and phytoplankton and can travel hundreds of kilometres.



## HYDROPHONES

Hydrophones are acoustic devices that detect sound underwater. They can be anchored to the seafloor and monitor sounds from humans, marine animals, fish, and deep sea vents.



## ROVS

Remote operated vehicles (ROVs) allow scientists to explore underwater habitats — even at extreme depths — using controls at the surface to discover new deep-sea species, collect samples, and more.



## eDNA

Environmental DNA (eDNA) is collected from ocean water, allowing scientists to analyze genetic material released from living and dead organisms.



## DROP CAMERA

Drop cameras are lowered from the side of a ship to different depths. They allow scientists to identify and observe animals in the water column and on the seafloor.



## STEREO CAMERA

Stereo cameras are used to identify species and measure their size and orientation. They can be dropped over the side of a vessel, moored to the bottom, or attached to other research instruments.

