



Fisheries and Oceans
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DFO Science Vessel Charters Pacific

Stock Assessment and Ecosystem Research Programs

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Canada 



Programs

- **Stock Assessment**
 - Small-mesh bottom trawl survey (e.g. shrimp).
 - Groundfish synoptic bottom trawl surveys.
 - Juvenile salmon mid-water trawl surveys.
 - Pacific Hake acoustic and mid-water trawl surveys.
 - Longline and Trap surveys (i.e. rockfish and crustaceans).
 - Invertebrate dive surveys (i.e. echinoderms).
- **Ecosystem**
 - Integrated pelagic ecosystem.
 - Marine protected areas.
 - Marine mammals.
 - Predator/prey interactions.
 - Habitat mapping.



Types of Vessels/Capabilities

- Trawlers/Druggers (surface to deep-water >500m).
 - Net mensuration/trawl geometry.
- Longline/Trap
- Trollers (salmon).
- Seiners (salmon).
- Acoustic Sounder Frequencies (38, 120, 200 kHz)
- Marine mammals observation (Big eye binoculars).
- Tender transport and deployment (dive, remote intertidal).
- CTD, ROV, AUV, plankton net deployment.
- Wet lab and dry lab.



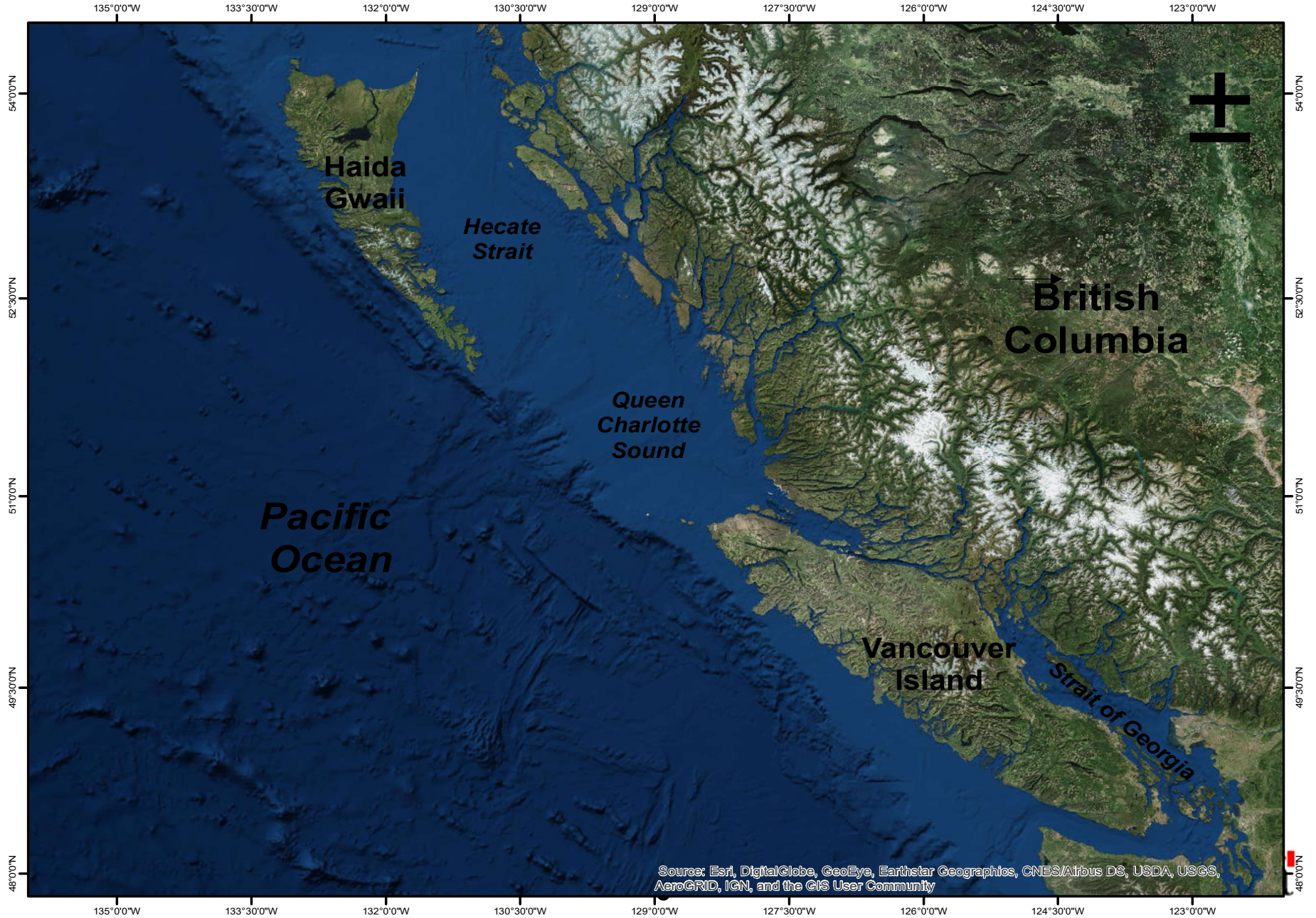
Area of Operations

- Offshore (7 to 28 day missions).
 - WCVI, QC Sound, Hecate Strait, WC Haida Gwaii.
 - Sea mounts, Continental Slope.
- Near-shore (7 to 28 day missions).
 - SOG, JDF, Mainland Inlets, etc.).



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Personnel Onboard

- Program specific:
 - DFO Science crew varies from 2 to 16.
 - Mixed gender.
 - Ship's personnel 2 to 8.
- Transportation:
 - Ports for crew changes.
 - PBS Nanaimo, IOS Sidney, Ucluelet, Port Alberni, Port Hardy, Prince Rupert.



Timing

- Day and night-time operations.
- 12 hr to 24 hr operations.
- Spring through Fall.
 - Biological.
 - Weather.