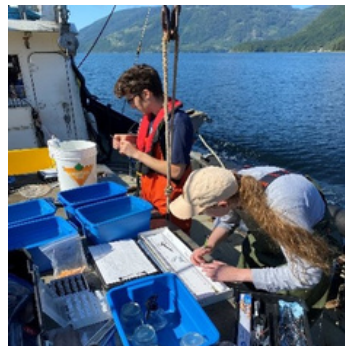
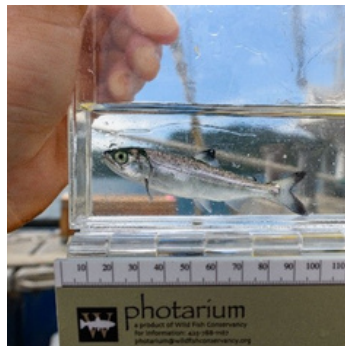


Follow the Fish: An integrated Chinook salmon assessment and monitoring program for the West Coast of Vancouver Island



West Coast of Vancouver Island (WCVI) Chinook are of conservation concern with high mortality thought to occur during the early marine phase. Many juvenile salmon surveys have been conducted over the years, but few have been able to access shallower areas within the sounds off the West Coast, where ocean-type Chinook may reside for up to their first year at sea. Characterizing the health and condition of Chinook salmon utilizing these nearshore ecosystems while measuring environmental variables is critical to understanding which factors may be limiting survival.

Follow the Fish (FtF) expands WCVI Chinook monitoring both spatially and temporally to track juvenile fish throughout their first year at sea. Working with local First Nation and NGO partners, juvenile salmon are captured as they migrate in the spring into the Somass, Sarita and Nitinat estuaries (beach/purse seining) and into the nearshore marine ecosystems where they rear in the summer (Barkley Sound purse seining) and overwinter in the fall and winter (microtrawling along the WCVI). At each point, fish are sampled (length, height, weight, clinical signs, various tissues) to assess stock of origin, health and condition that is paired with environmental oceanographic data (temperature, oxygen, salinity).

Distributional patterns of WCVI Chinook, including hatchery and natural-origin, during their first marine year will be investigated using stock of origin data. Biological samples will be used to characterize the diet composition,

Take-aways

- Juvenile Chinook salmon utilize nearshore marine ecosystems along the West Coast during their first marine year.
- This monitoring project samples juvenile Chinook during year-round salmon surveys in estuarine and marine waters along the WCVI.
- Researchers are characterizing fish distribution and health (condition, diet, growth) to understanding what factors may be limiting early marine survival.

condition, and relative rates of growth of WCVI populations in nearshore marine areas. Additional biological samples collected during these surveys will be used for analyses related to health and condition by other FtF researchers ([click the logo below to view projects](#)). Information from this program will aid in filling knowledge gaps and will inform conservation and management actions under the WCVI Chinook rebuilding plan.

Timelines

- ✓ 2023: year-round juvenile salmon surveys
- ✓ 2024: second year of juvenile salmon surveys
- 🔄 Dec 2024: develop R Markdown
- 🔄 Mar 2025: multi-year data reports
- 🔄 Oct 2025: final summer of Barkley Sound purse seine surveys
- 🔄 Mar 2026: Final reports

Collaborations

Ahousaht First Nation, Ditidaht First Nation, Ehattesaht/Chinehkint First Nation, Hupacasath First Nation, Huu-ay-aht First Nation, Ka:'yu:'k't'h 'Che:k'tles7et'h' First Nations, Mowachaht/Muchalaht First Nation, Nuchatlaht Tribe, Pacheedaht First Nation, Quatsino First Nation, Tla-o-qui -aht First Nation, Toquaht Nation, T'sou-Ke Nation, Uchucklesaht Tribe, Tseshah First Nation, Yuułu?i?atḥ Government, Ha'o'om Fisheries Society, Maaqutusiis Hahoulthee Stewardship Society, Nuuchah-nulth Tribal Council, Uu-a-thluk Fisheries, Nootka Sound Watershed Society, Pacific Salmon Foundation, LGL Limited.

DFO Science Division
Stock Assessment and Research

DFO Science Section
South Coast Area Salmon Stock Assessment

Project Leads
Jessy Bokvist

Locations
West Coast of Vancouver Island, Stamp River, Sarita River, Nitinat River, Barkley Sound

Species
Chinook

Project ID
2407



Follow the Fish



Conservation and Stewardship



West Coast Vancouver Island



Vancouver Island West

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