# FIELDNOTES 2025 - 2026: Collaboration Visualizer


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## What it takes


Credit: Shane Kalyn, DFO

Each year DFO Science staff team up with a broad range of regional, provincial, national and international collaborators for the planning, design, delivery, and evaluation of field research and monitoring. In 2025-2026, that's an anticipated 158 unique collaborators across 94 field operations.

Significantly, between 2019 and 2025, unique Indigenous collaborators participating in field operations increased from 16 to 65—or by 406%! But what does it take to effectively nurture relationships and propel collaborations towards success?

Favorable circumstances and resources play a role, but a clear and shared vision, intentionality, and "relentless incrementalism"[1] matter more. So do the sharing of authorities, co-development, and learning with humility. Overcoming fears and challenging the status quo? Absolutely. Prioritizing the relationships when faced with adversity? Essential.

Dive into these three unfolding stories of our deepening relationships and discover what it takes to answer important scientific questions while progressing towards a better, more inclusive Canada.

[1] Louie and Grain, 2024

## Oceanographic monitoring: Clayoquot Sound

Unique ID: OSDOMAP_02

The ʕaḥuus?ath Ha'wiih (Ahousaht Hereditary Chiefs), as represented through the Maaqutusiis Hahoulthee Stewardship Society (MHSS), are responsible for ensuring that all activities within ʕaḥuus?ath haḥuulii (Territory) benefit the ʕaḥuus?ath muscim (people) collectively and respect ʕaḥuus?ath guiding principles of Iis?akstaƛ (respecting one another), Haaḥuupstaƛ (teaching one another), Ya?akstaƛ (caring for one another), and Huupiil'aƛ (helping one another).

Through their collaboration, MHSS and DFO aim to understand how oceanographic conditions in ʕaḥuus?ath haḥuulii are changing.

MAAQUTUSIIS HAHOULTHEE STEWARDSHIP SOCIETY


Credit: Gemma Macfarlane, MHSS

**2023 Fall**

MHSS approaches the DFO Ocean Modelling and Predictions Section and successfully collaborates on a Climate Ready BC Seafood Program proposal to investigate marine oxygen conditions, and their potential impacts on ʕaḥuus?ath traditional seafoods.

**2024 Spring**

With funds secured and advice from DFO, MHSS purchases an underwater instrument to monitor conductivity, temperature, depth, and oxygen (CTD) in ʕaḥuus?ath haḥuulii.

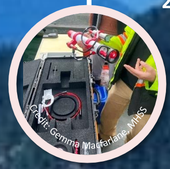

Credit: Gemma Macfarlane, MHSS

**2024 Summer**

DFO and MHSS leadership enter into a Data Sharing Agreement (DSA) to formalize their relationship, outline roles and responsibilities, and support ʕaḥuus?ath data sovereignty goals.

**2024 Fall**

MHSS participates in 2 DFO-led training sessions-one virtual and one in ʕaḥuus?ath on CTD deployment, data collection and management.


Credit: Gemma Macfarlane, MHSS

**2024 Fall**

MHSS begins monthly oceanographic sampling in ʕaḥuus?ath haḥuulii and shares raw oceanographic data with DFO for processing and quality control.

**2025 Spring**

DFO posts processed data to Water Properties, in accordance with ʕaḥuus?ath data sovereignty provisions within the DSA.


Credit: Gemma Macfarlane, MHSS


Credit: Gemma Macfarlane, MHSS

**2025 Spring**

Data contribute to MHSS' assessment of traditional seafood species' vulnerability to low oxygen and changing ecosystems, as well as to DFO's nearshore ocean modelling.

## Juvenile sockeye nursery lake ecosystem assessments

Unique ID: ESDFE_03

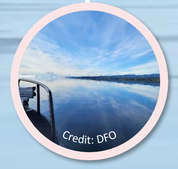
Wild Babine sockeye salmon have been in decline since the ~1970s. Since 2012, Lake Babine Nation (LBN; Donna McIntyre, then Cassie Allen, Fisheries Director) and DFO's Lakes Research Program (LRP) worked together with a network of experts to develop and apply interdisciplinary scientific knowledge to explore and define limiting factors for Babine Lake sockeye salmon related to environmental changes, at all life stages.

The LBN-DFO team prioritized knowledge sharing and collaboration to build and nurture a strong, productive and progressive relationship. A shared enthusiasm and a strong sense of purpose have been key to a new Nation-to-Nation, values-driven cooperation to rebuild wild Babine sockeye salmon.

Lake Babine Nation

**2012**

DFO approaches LBN and the Skeena Fisheries Commission (SFC) about exploring a productive capacity assessment of Babine Lake, and collectively secure funding from the Pacific Salmon Commission (PSC) Northern Endowment Fund (NEF).


Credit: DFO

**2013-14**


Credit: LBN

DFO-SFC joint field delivery and analysis of the limnology, hydroacoustic, and trawl survey data indicate substantive ecosystem changes from sampling in the 1970s-1990s.

**2016**

LBN and DFO successfully renew PSC NEF funding, repeat the 2013 surveys, and engage Queen's University. DFO provides field and laboratory training to LBN staff, and on-water demonstrations to LBN leadership and members.

LBN and DFO (LRP, Ecosystem Stressors Program) establish an in-lake mooring network, revealing significant physical lake changes from DFO research in the 1970s-1980s.

LBN, Queen's University, and DFO investigate mechanisms of lake and watershed ecological changes over the last 200 years, identifying key drivers of biological production in the Babine Lake ecosystem.

**2017**

LBN and DFO co-host a workshop in Smithers, BC to discuss the limnological, salmon, and environmental science results, create space for mutual understanding, and identify next steps in the collaboration.


Credit: DFO

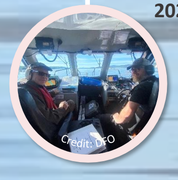
**2020**


Credit: DFO

The LBN, Province of British Columbia, and Canada sign the Foundation Agreement, a shared 20-year vision towards self-government, shared decision-making, and the implementation of LBN Aboriginal title and rights.

**2021-22**

LBN and DFO install shoreline meteorological stations to integrate with the mooring data and model the physics of Babine Lake into the future.


Credit: DFO

**2024**

Guided by LBN values, multiple sectors of DFO and LBN engage in a deeply-informed collaboration to plan the rebuilding of the wild Babine Lake sockeye salmon population.

The late Donna McIntyre, a Lake Babine Nation member and the Fisheries Program Director, had a dream to rebuild Wild Babine Sockeye. Through her unwavering focus and her ability to be the bridge between DFO, Western Science, and Lake Babine Nation Traditional Ecological Knowledge and culture, she has left a legacy of all parties working together towards a common goal.

*"As you rest in peace, our friend and mentor, we will carry your vision forward in the rebuilding of the wild Babine sockeye salmon on the vintah, for future generations."* (Cassie Allen, LBN Fisheries Director)

## Northeast Pacific deep-sea expedition

Unique ID: ESDMSEA_09

The Marine Planning Program at the Council of the Haida Nation (CHN) and the Deep-Sea Ecology Program at DFO work together to generate science for the discovery, monitoring, and conservation of co-managed deep-sea areas.

Foundational to their relationship, co-production of knowledge is based on Haida ethics, values and laws, and the principles of respect, responsibility, interconnectedness, balance, seeking wise council, and reciprocity. The team celebrates Haida Knowledge – science, history, art, and language – at every opportunity and demonstrates a shared commitment to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

HAIDA NATION

**2018**

Building on their collaborative nearshore research and efforts to propose the Tang.gwan · hačx̌ʷiqak · Tsigis Marine Protected Area (ThT MPA), CHN and DFO scientists undertake their first collaborative seamounts expedition and prioritize co-hosting of outreach events, including online streaming of submersible footage and community-based events.


Credit: Shelton Du Preez, DFO

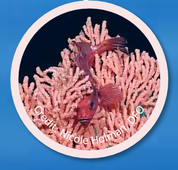
**2021-22**


Credit: Nicole Holman, DFO

The Team co-creates and co-authors the science advice and monitoring framework for the SGáan Kinghlas-Bowie (SK-B) MPA, which includes elements of Haida cultural context and language. The team presents these efforts at the State of the Pacific Ocean meeting.

**2022**

The team strives for equal representation and champions joint capacity building. During the second joint deep-sea expedition, CHN leads a dive to the sacred summit of SK-B. A co-created deep-sea episode featuring the SK-B MPA of Live It Earth airs to over 310,000 schools!


Credit: Maggie Hunter, DFO

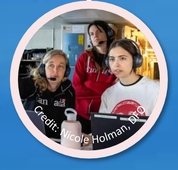
**2023**

The Ocean Decade and Challenger 150 officially endorses the NorthEast Pacific Deep-sea Exploration Project (NEPDEP – a collaboration between CHN, DFO, Nuu-chah-nulth Tribal Council, Ocean Networks Canada, Royal BC Museum, and University of Victoria) to discover, explore, and monitor life far below the surface.

Credit: Cherisse Du Preez, DFO

**2024**

NEPDEP works with the Advisory Committee on Undersea Feature Names to add placeholder names for 43 seamounts until Indigenous names are provided, and to formally recognize the official Haida name of the SGáan Kinghlas-Bowie Seamount.


Credit: Nicole Holman, DFO

**2024**

The team breaks new ground, this time by successfully advocating for the acknowledgement of co-authorship of the SK-B MPA monitoring framework through inclusion of the CHN and DFO logos in its Science Advisory Report.

**2025**


Credit: NEPDEP & CSSF ROPOS

The journey continues as CHN and DFO co-author an ecological and biophysical overview of the Tuzo Wilson Seamount Complex to inform future monitoring, management, and conservation of a globally unique deep-sea area.

Credit: Tanya Schley, DFO

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*Klecko, sne c'al yegh, háw'aa haawa, thank you to MHSS, LBN, and CHN for co-developing these stories*

Canada