

Graduate Internship Opportunity

Summer 2025

PROJECT TITLE

Tsawout First Nation clam population assessment for sustainable Food, Social, and Ceremonial harvest

Organization

Tsawout First Nation (TFN)

Background & Purpose

On June 21, 2023, Tsawout First Nation (TFN) took an historic step by self-declaring its first Indigenous Protected and Conserved Area (IPCA) within the Salish Sea and its ancestral lands. As signatories of the Douglas Treaty, Tsawout has endured over 170 years of exclusion from sustainable management of its traditional waters, which, in turn, has impacted the Nation's food sovereignty/security, health/wellness, economics, cultural protocols, and, crucially, the integral relationships Tsawout's People have always had with their marine relatives. Faced with the effects of unsustainable, Canada-led fisheries management and ongoing compromises to their way of life, TFN is now in the process of identifying, designing, and implementing culturally grounded, community-directed stewardship protocols for marine life within this newly established IPCA, known as QEN,T (Protector), which spans approximately 150 km² or 3% of TFN's 4500-km² traditional territory.

Project Description

Tsawout's traditional territory has been significantly impacted by coastal developments, resulting in many traditional shellfish harvesting sites becoming inaccessible due to long-term sanitary closures. To better understand the status of culturally important species within its territory, this project aims to identify which beaches in Tsawout's traditional territory remain viable for food harvesting and to assess the health of clam populations.



This project will not only incorporate Western scientific methods (DFO clam surveys) but will also utilize traditional knowledge to identify important traditional harvest sites and species. Elders and community members will provide invaluable insights into historical harvest practices and locations, enriching the understanding of temporal trends observed in clam populations. While the Department of Fisheries and Oceans (DFO) has conducted some clam sampling along the British Columbia coast to understand population dynamics, their efforts do not specifically address the availability of food species within a Nation's territory. Additionally, intertidal clams in the South Coast remain listed as "uncertain" in DFO's stock assessments. By combining Western and Indigenous science, this project aims to achieve a holistic understanding of clam populations available for harvest in Tsawout's QEN'T MPA.

Key Deliverables

The scholar is expected to provide a written report containing:

- A detailed assessment of intertidal clam populations in culturally important beaches to inform sustainable harvest guidelines.
- Metrics demonstrating strengthened capacity within the Tsawout community for ongoing monitoring and resource stewardship.

Scope of Work

Intertidal Clam Population Surveys

Conduct systematic surveys of intertidal clam beds to assess population health, species diversity and distribution, and biomass. Interviews will help us selecting locations and fill the gaps between historical vs modern traditional harvesting sites. The latter are the ones still relevant for community health, but we anticipate collecting additional knowledge to assess observed trends in clam availability that may be related to climate changes and other stressors. Surveys will help to inform sustainable harvesting levels, ensuring long-term availability for Tsawout harvesters.

• Capacity Building and Intergenerational Knowledge Transfer Actively involvement of Tsawout community members of all ages in interviews and surveys activities, providing training and employment opportunities. The project will prioritize the integration of Indigenous knowledge, fostering a collaborative approach to clam management. Community meetings will be held to inform Tsawout membership of the project and relevant results found.

Time Commitment



- 250 hours
- Work Schedule: flexible and defined together by Scholar and partner

Intertidal Clam Population Surveys

Clam surveys will take place at the five selected areas using the DFO protocol as descried in *A Manual for Intertidal Clam Surveys* (Gillespie and Kronlund, 1999). Each site will be surveyed once during the spring and summer of 2025 at lowest available daylight tide. The goal of this initial round of surveys is to create a baseline to inform an annual field survey program to track the clam populations long term. Tsawout community members will be consulted on modern and historic harvesting sites to select specific survey sites still relevant to traditional harvesters and to provide insights into stressors causing the loss of harvesting sites. Community members will also be consulted to select the most important clam species to be enumerated and to estimate biomass. The scholar will potentially aid with the assessment of knowledge gaps by recording/transcribing interviews.

Data analysis, communication materials and Final report

The scholar will aid with preliminary analysis of data collected in field surveys and produce a report and a presentation to be presented during a community event. Communication materials will be helpful to maintain the community throughout the project such as social media posts and articles for the community monthly newsletter.

Preferred Skills & Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Experience conducting stakeholder engagement events, including facilitation skills, is an asset
- Familiarity with research methodologies and survey techniques
- Statistical analysis
- Excellent public speaking and presentation skills
- Community engagement experience
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Programming skills
- Strong technical and drafting skills



- Demonstrated experience in boat-based field work
- GIS training or experience
- Comfortable interacting with strangers to conduct public/in person surveys
- Criminal Record Check

Additional Information

We would like an independent scholar with some science background to support conducting fieldwork and collecting data for our fisheries department as well as analyzing data and creating reports to inform the community and external partners/funders.

Preference will be given to Indigenous applicants. However, applicants with experience working with Indigenous communities or those who are culturally sensitive would be welcomed by our Fisheries team.

Scholar will need access to a car, access to a phone and phone plan that accepts local calls or long-distance calls, access to statistical software, personal field equipment such as waders/rain gear.

Program Information

Dates: May 1—August 15, 2025

Compensation: Scholars are paid approximately \$7,950 for 250 hours of work (based on UVic Research Assistant pay rate)

Application Deadline: January 31, 2025

Contact: Laurel Currie (sustainability-scholars@uvic.ca)

Visit our website to learn more about eligibility and application requirements.