DALHOUSIE UNIVERSITY
Inspiring Minds
Faculty of Science

# Exploring distinct indigenous knowledge systems to inform fisheries governance and management on Canada's coasts (Fish-WIKS)

**Introduction:**

Fisheries decision-making processes in Canada are influenced primarily by western science-based knowledge systems and often exclude knowledge from non-western based indigenous sources. As Canada faces growing challenges from climate induced changes in coastal and inland areas, it is increasingly important for Canada to consider diversified knowledge sources to meet its stated goal to promote "sustainable aquatic ecosystems" and to accommodate its legal obligation to recognize Aboriginal and treaty rights and title. In contrast to the current federal regime, Indigenous Knowledge Systems (IKSs) are often based on a world view and values that are place based and communally owned, rooted in a shared history, holistic, experiential and transmitted in oral language that is dependent on distinct cultural contexts.

**Research Goal:**

Given the growing interplay between federal level and indigenous decision makers and the efforts underway in Canadian legislation to support the use of indigenous knowledge, the overarching goal of this research is to improve fisheries governance and management in Canada by understanding how indigenous knowledge systems can enhance the current regime for decision-making.

**Research Approach and Questions:**

The research examines three characteristics of knowledge systems: the valuation, ownership and control of knowledge. It aims to identify the commonalities and differences in indigenous knowledge systems (IKSs) in 4 distinct indigenous coastal communities in Canada (Tla-o-qui-aht, BC, Repulse Bay, NU, Nipissing, ON and Eskasoni, NS) and to understand the western knowledge system underpinning governmental decision making processes. The acquired knowledge will serve to highlight the challenges and opportunities available to both indigenous (First Nations and Inuit) and non-indigenous decision makers and users to enhance fisheries governance in Canada. Key research questions focus on examining the extent to which western and indigenous knowledge systems influence fisheries governance at multiple levels and understanding how distinct IKSs can improve current efforts, given the complexities of ecosystems and uncertainties posed by climate-induced changes. **The acronym for the project is Fish-WIKS (Fisheries – Western and Indigenous Knowledge Systems)**

**Partners:**

The partners are pan-Canadian with linkages to international fisheries and indigenous networks beneficial to the project's success. They represent indigenous governance and research institutions with expertise in knowledge systems and fisheries management (the Assembly of First Nations, British Columbia First Nations Fisheries Council, Unama'ki Institute for Natural Resources and the Government of Nunavut) and indigenous and non-indigenous scholars with complementary expertise in aboriginal scholarship and fisheries governance from Dalhousie University, University of Guelph, University of Toronto and Vancouver Island University. The partnership is committed to full and equal involvement in all aspects of the research and has a mutually-developed governance structure that is inclusive and based on consensus.

**Benefits:**

The research allows for fisheries governance in Canada to be significantly enhanced, by identifying and using the best model or mix of models from western and indigenous knowledge systems to influence fisheries-related decision making within a regional context. Additional outputs include training and mentoring of 18 undergraduate, Master's, doctoral and post-doctoral candidates with priority given to indigenous students; shared policy-relevant knowledge using oral and written communication formats; and an expanding network of fisheries governance scholars and practitioners.

**Funding:**

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Fish-WIKS Research Propositions

1. The homogeneity of the western governance bureaucratic theoretical model seems at odds with the multiplicity of indigenous knowledge systems
2. Understanding the challenges and opportunities arising from the interplay of these different knowledge systems can lead to mutually beneficial outcomes for both parties, including the effective management of the fisheries
3. Implementing an EBM approach to fisheries is more likely to be successful using practices from placed-based and holistic knowledge systems such as those associated with indigenous knowledge systems

Fish-WIKS Research Questions

1. To what extent and how are different knowledge systems incorporated into fisheries governance processes by the federal government at national and regional levels in Canada?
2. To what extent and how are different knowledge systems incorporated into fisheries governance processes by indigenous nations in Canada at national, regional and local levels?
3. Can distinct IKS improve the effectiveness of fisheries governance at national, regional and local levels in Canada and internationally given the complexities of ecosystems and additional uncertainties posed by climate-induced changes?