Traditional knowledge perspective of the performance of fish habitat compensation projects in Eeyou Istchee

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Canada's Policy on Fish and Fish Habitats

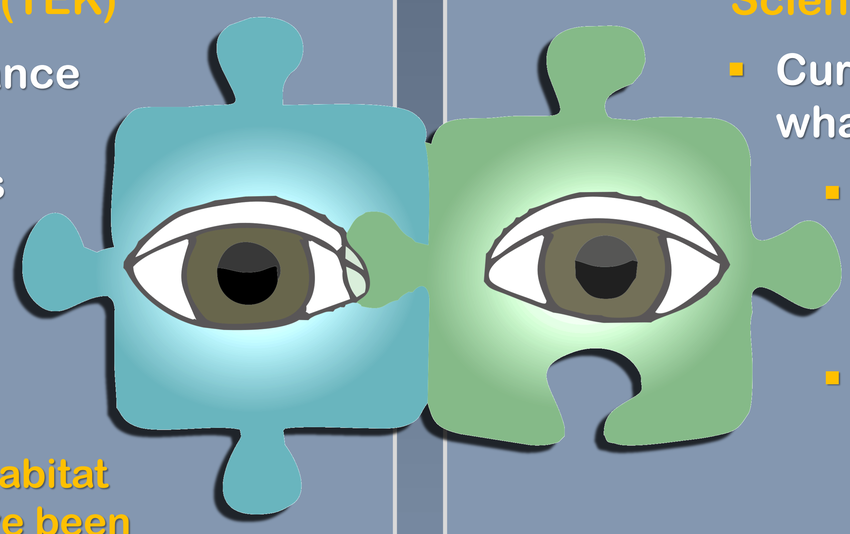
- The objective of fish and fish habitat compensation is to prevent declines in the productivity of Canada's fisheries resources
- Fisheries Act Section 35(2) authorizes permits for industrial activities that cause harmful alteration, disruption, and destruction of fish habitat (HADDs)
- No Net Loss (NNL) policy requires habitat compensation to balance losses in fish habitat productivity

Objective: To assess the perspectives of Cree land users on fish habitat compensation in Eeyou Istchee

Traditional Ecological Knowledge (TEK)

- Improved policy, higher compliance (Berkes 2018; Johannes et al. 2000)
- Reversal of abundance declines and size decreases (Frid et al. 2016)
- Provide baseline info not otherwise attainable (Eckert et al. 2018; Marin et al. 2017)

Eeyou Istchee currently has 8 fish habitat compensation projects, but none have been evaluated in terms of Cree TEK



Scientific Ecological knowledge (SEK)

- Current practices unable to measure what is lost or gained (Curran et al. 2014)
  - Species assemblages in compensated habitats often differ drastically (Maron et al. 2012)
  - Shorter time scales (<10 years) needed for developers than for compensation (50-100+ years) (Taherzadeh & Howley 2018)
- Unable to replicate ecosystem processes, rarely compensate for HADDS (Quigley & Harper 2006)

Net loss of functional habitat as compensation unable to effectively offset losses
(Curran et al. 2014, Quigley & Harper 2006)

Methods

Q-set methodology (Lévesque et al. 2020; Zabala et al. 2018) will be used to **extract perspectives** of three different stakeholders:

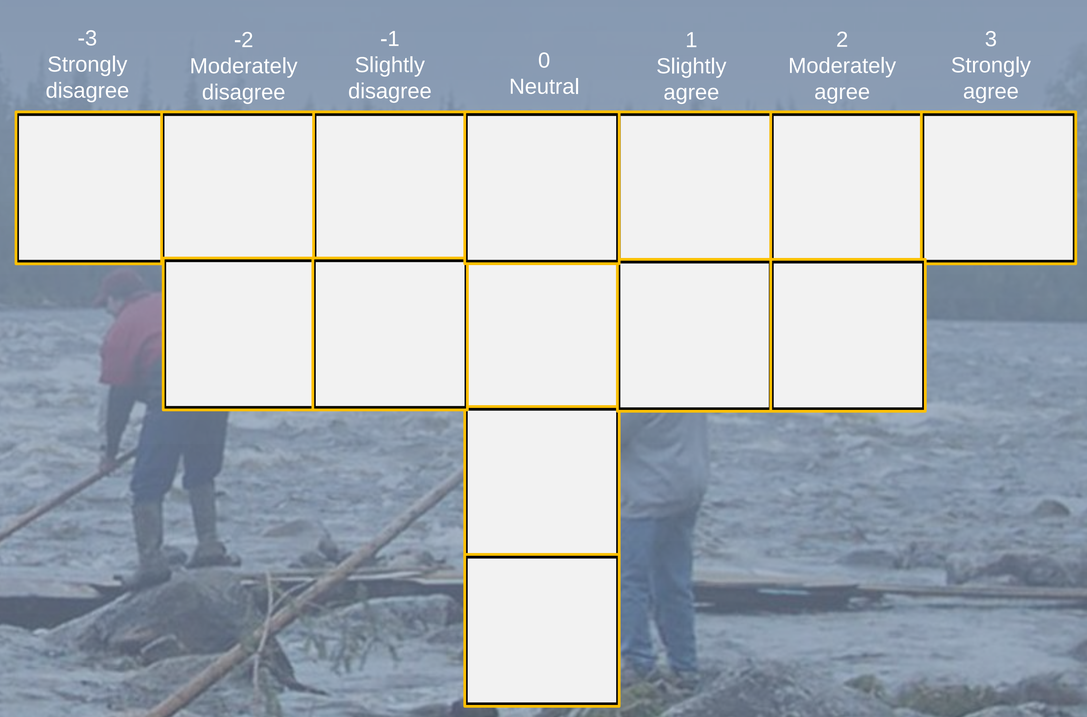
1) Cree land users, 2) Industry proponents, 3) DFO

The Q-set consists of a series of 53 statements, in 4 sections:

1. Success of fish habitat compensation projects (14 statements)
2. Scope of fish habitat compensation projects (10 statements)
3. TEK and SEK in fish habitat compensation (14 statements)
4. Interactions between government & industry (15 statements)

Interviewees will sort the statements for each of the 4 sections, based on their relative agreement/disagreement

- OCAP® principles of ownership, control, access, and possession of data will be followed (https://fnigc.ca/ocap)
- Project developed in accordance with research protocol of the Assembly of First Nations of Quebec and Labrador (AFNQL 2014)



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