

State of Lake Whitefish on the La Grande River

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Background Information

Itkamawk or lake whitefish (Coregonus clupeaformis) is native to the rivers and lakes of James Bay and surrounding tributaries. They are anadromous meaning they use both fresh and coastal brackish waters to feed and reproduce during their life cycles.

The Cree's of Eeyou Istchee have **depended** on Itkamawk as traditional food. Itkamawk and have sustained the Cree during the summer and fall months.

The community Fisheries Project aims to gather baseline data for future reference on the state of Itkamawk fishing in James Bay. The baseline data includes fish quality, quantity, age distribution and threats assessment to better understand the status of the fishery.



Our Research Findings

- On the La Grande River, you will catch 1.80 kg of Lake Whitefish an hour!
- Itkamawk are the **dominant catch** in fishnets during the Spring and summer months
- Itkamawk from the La Grande River ecosystem are significantly larger than Itkamawk from other river systems and lakes
- We have found that Lake Whitefish with a higher fat percentage have a higher meat quality and a lower moisture content
- The average Fat percentage for Lake Whitefish from the La Grande River is 3.27% this means that the fish are lean but remain larger than other Fish from other freshwater ecosystems Fish age and Quality

Collection methods

- A graded mono filament net (12' X 150') with panels of 1", 2", and 3" meshes at 50 feet lengths
- A 24' Canoe and an experienced guide to brought us to the fishing locations and we deployed the fishnets overnight
- The nets where set during the low tide and retrieved at low tide
- We set the fishnets on historical fishing sites
- Our nets were set at 3 meters depth (9 feet)
- We measured catch per unit effort (CPUE), took measurements, collected otoliths for ageing, and flesh samples for quality and contaminants analyses
- We also collected adipose fins for genetic analysis
- Collecting dorsal flesh for further testing











