



# The Role of Our Fish

Freshwater fish such as **Northern Pike** (also known as Jackfish), **Whitefish**, and **Sturgeon** play a key role in our lakes and rivers.

Northern Pike may control the population of smaller fish so they do not grow in numbers and consume all of the resources.

Whitefish will eat smaller critters at the bottom of lakes, but are the prey of other larger fish (such as the Northern Pike).

Sturgeon love to clean the bottom of our bodies of water to assist the clean up and cycle of nutrients that end up at the bottom.

## More Info

Freshwater fish tell us about the conditions and health of the water they live in. We can look at the health of the food they eat, when they move from one part of a lake to another, or the condition an entire species is in.

If we monitor these indicators, we can keep track of the health of water and make changes to improve it.

Anyone can contribute to this knowledge, from keeping track of the fish you catch, the wildlife you see using the water to feed, and even just the water levels and conditions.



For More Information on  
Manitoba Fish

[huntfishmanitoba.ca](http://huntfishmanitoba.ca)  
[gov.mb.ca/water/contam-fish](http://gov.mb.ca/water/contam-fish)

Contact Information

[eclinfo@umanitoba.ca](mailto:eclinfo@umanitoba.ca) (204)-474-9316



pītos pokō ta-isi-  
kanawāpahtamēk  
University of Manitoba  
"Looking outside the cup"



# Manitoba Fish

# Importance of Fish In Manitoba

## Environmental Factors

Environmental changes can affect fish by the temperature, habitat availability, and chemistry of the water. Extreme weather events may also cause stress in water bodies, ranging from flooding, severe storms, or even droughts and heat waves.

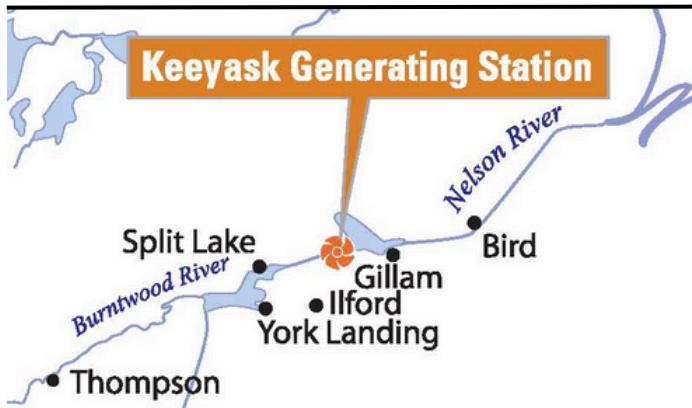
## Human Causes

Humans may cause harmful conditions for fish by overfishing, polluting the water, or creating hazards in the water. Pollution can come from many things: mining, agriculture runoff, plastic waste, chemical spills, wastewater, and excessive transportation emissions.



## Climate Change Impacts

- Climate change can affect the conditions that fish species are built for, making them work harder to exist. This includes:
  - Immune health
  - Temperature tolerance
  - Food availability
  - Habitat availability



## Hydro Dam Impacts

- Block access from moving up or downstream which may impact:
  - Breeding migration
  - Winter migration
  - Natural feeding habits
  - Territorial space

## Mining Impacts

- May divert streams
- May cause wetlands to lose water
- Contaminates water
- Erodes waterways and causes sedimentation of once unaffected areas
- May cause loss of vegetation where fish and their food resides

# What Can We Learn From Fish?

## Their Knowledge on the Water

- Some fish are sensitive to changes in temperature, chemistry, and turbidity. An absence of these fish can tell us that there may be something abnormal going on.
- The migration of fish can tell us if they can find food or a comfortable habitat.
- If a fish species are found sick, or smaller than normal, it can tell us that the water is either unhealthy or there is not enough food.

## How They Affect Other Species

- The absence of fish that are preyed on, such as the whitefish, can limit the food that predator fish can find.
- The absence of benthic fish, such as Sturgeon, can impact the cleanliness of the water and lead to too many nutrients which can have devastating effects for all aquatic organisms.

## Fish and Infrastructure

When it comes to mines and hydro dams, there is not enough research done for methods and preventative measures of pollution in Manitoba. Paying attention to how fish become affected can create measures to prevent these issues.