

Silent Invaders

Building Monitoring and Preventative Strategies for Invasive Species



Background

Lake Kashagawigamog

- Located in the heart of the Haliburton Highlands
- Approx. 2019 acres of water surface
- Two basin lake connected by a narrow channel
- Central lake in a five-lake chain stretching southwest from Haliburton to Minden
- Lakes in chain include Head, Grass, Soyer, and Canning
- Heavily populated cottage lake
- Oligotrophic lake, surrounded by mixed wood forest



Water Quality Monitoring Locations

Discussion

- Rusty Crayfish presence was determined using OFAH
- Eurasian Water-Milfoil was visually identified and collected to be confirmed as such
- Spiny Water Flea was found in the sample using a microscope
- Zebra Mussel was not found in the lake, habitat was deemed not suitable
- Round Goby was not found, although it is spreading north
- A sampling protocol was created to determine the presence or absence of the Round Goby

Research Questions

1. Where has past water quality monitoring occurred?
2. What equipment and sampling protocol would be best for aquatic invasive species?
3. Where should any new monitoring take place?

Preliminary Findings

Species Found:

- Eurasian Water-Milfoil (*Myriophyllum spicatum*)
- Spiny Water Flea (*Bythotrephes longimanus*)
- Rusty Crayfish (*Orconectes rusticus*)

Species Not Found:

- Round Goby (*Neogobius melanostomus*)
- Zebra Mussels (*Dreissena polymorpha*)

Public Outreach

- Round Goby is currently in the Lake Simcoe and Bobcaygeon areas
- It is important to inform the public about the importance of mitigating the potential spread of the Round Goby
- Information brochures were created for the Lake Kashagawigamog Organization (LKO) to distribute to cottagers, anglers during derbies, and marinas located in the region
- Brochure informs the public as to how to identify the Round Goby, provides background information on the risks associated with its presence in Ontario lakes, and identifies preventative measures needed to prevent its spread to the Haliburton region
- Protocols were not created for the other invasive species found in the lake. Once established they are quite difficult to remove and the impacted ecosystem needs to adapt

Methods

- Preliminary research on invasives found in the lake using sites such as OFAH
- Sampled for Spiny Water Flea below the thermocline using Wisconsin Plankton Sampler
- Minnow traps were set for the Round Goby baited with dry cat food
- Visual assessment for Zebra Mussel, Water Milfoil and the Rusty crayfish



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