ONTARIO FEDERATION OF ANGLERS & HUNTERS
P.O. Box 2800, 4601 Guthrie Drive, Peterborough, Ontario K9J 8L5
Phone: (705) 748.6324 • Fax: (705) 748.9577 • Visit: www.ofah.org • Email: ofah@ofah.org
Ontario Conservation Centre

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Ministry of the Environment, Conservation and Parks
Species at Risk Branch - Species at Risk Recovery Section
300 Water Street
North Tower, 5th Floor
Peterborough, Ontario
K9J 3C7

Subject: Requesting additional scientific information, Indigenous knowledge and community knowledge to be considered in preparing recovery strategies for four species at risk

The Ontario Federation of Anglers and Hunters (OFAH) is Ontario's largest, non-profit, fish and wildlife conservation-based organization, representing 100,000 members, subscribers and supporters, and 725 member clubs. We have reviewed the *Draft Recovery Strategy for the Lake Whitefish (Coregonus clupeaformis) Opeongo Lake Large- and Small-bodied Populations in Ontario* (Consiglio et al. 2023) and have the following feedback to share. Among other recommendations, we feel strongly that angling should be removed as a threat to the survival and recovery of the species pair and greater attention should be put towards managing non-motorized boats to help reduce introductions of aquatic invasive species (AIS).

<u>Angling – not a threat</u>

The report states incidental angler by-catch is a threat to the survival and recovery of Lake Whitefish but also acknowledges over a 15-year period approximately nine Lake Whitefish were captured per year with an average harvest of around six per year. In fact, in nearly three decades, only 189 Lake Whitefish have been caught and kept on Lake Opeongo (Colm and Drake, 2022).

Considering whitefish were never frequently targeted or incidentally captured and are now protected under the *Endangered Species Act* (ESA) (2007) so they can't be killed, harmed, harassed, captured, or taken, any post-release mortality due to incidental by-catch would be immeasurably small. Without supporting evidence and/or justification to demonstrate that angling is a legitimate, ongoing threat to the survival and recovery of the species pair, it should be removed from the report.

<u>Recreational boating and the spread of aquatic invasive species</u>

The recovery strategy specifically focuses on the management of motorboats without accounting for the spread of AIS by non-motorized pleasure crafts (e.g., canoes, kayaks, paddleboards). It states, "…there is a need to consider more effective measures to control motorboats" and, outlined in the approach to recovery, is the management of motorboats including limiting outboard motor horsepower.

Drake's 2017 summary of various research articles on the overland spread of AIS due to recreational boating broadly applies to power-driven, sail-driven, and manually-driven vessels (such as canoes and kayaks). In the report, trip-taking frequency, overland travel distance, and cleaning behaviour, regardless of boat type, are identified as key contributing factors to the spread of AIS.

Similarly, the greatest hazards for the spread of AIS characterized by Anderson et al. (2014) were frequent trips, visits to multiple catchments, and poor cleaning and/or drying practices by canoeists and anglers. Johnson et al. (2001) acknowledges that boats can vary in terms of their ability to transport AIS but identifies that frequency of multi-lake usage determines the likelihood of invasion.

Densities of AIS are typically lower on manually-driven boats because they lack structures that can harbour AIS (e.g., engine cooling systems, livewells) (Drake et al. 2017), yet there remains strong potential for canoes to transport unwanted species including Spiny Water Flea (Stasko et al. 2011; NYDEC, *no date*). AIS are most likely adhering to the interior of the boat hull, and potentially being washed out along portage routes and at campsites. Moreover, regardless of the boat type, Spiny Water Flea can affix themselves to fishing line, anchor ropes and other gear and equipment.

Recreationists are seeking out special features for their canoes and kayaks (e.g., pedal drive capabilities) that have various storage compartments, straps, and bungee cords for AIS to be potentially transported on or in. They are highly portable, some are packable/inflatable, which creates new risks compared to traditional canoes or kayaks. Furthermore, the entry price and ongoing costs for motorboats (i.e., fuel, gear/equipment, maintenance) is significantly higher than non-motorized watercrafts which, for many, means opting for a canoe or kayak instead.

Non-motorized watercraft usage is by far the most common in Algonquin Provincial Park (APP). Surveys indicate that out of 5,147 campsite nights in 2022, approximately 2% reported using or were likely using a motorboat on lakes that allow motorboats in the park (APP staff pers. comm. 2023). Therefore, the magnitude of introduction by non-motorized watercrafts is significant which reinforces the need to seek out management strategies for recreational boats in general, not just motorboats. While we acknowledge horsepower restrictions may theoretically reduce access for a few boaters, the potential for AIS introductions remains, rendering the management strategy relatively ineffective.

Recommended approaches to recovery

In Table 2.3, the installation of boat and gear washing stations and managing motorboat activity at Lake Opeongo are listed as recommended approaches to recovery. However, a boat cleaning station is already on loan from the Invasive Species Centre and was installed at the launch in May 2023 and, as demonstrated, managing motorboats and limiting boat horsepower will not be fully effective in preventing the introduction of AIS.

Furthermore, before transporting a watercraft or watercraft equipment over land, reaching a launch site, or placing a watercraft or watercraft equipment in any waterbody in Ontario, boaters are required to: 1) take reasonable measures to remove all aquatic plants (weeds), animals, and algae; and 2) remove or open drain plugs and other devices used to control the drainage of water from the watercraft and watercraft equipment.

Considering small- and large-bodied Lake Whitefish in Lake Opeongo are protected under the ESA and incidental by-catch is very negligible, we question the reasons for including managing angling activity as an approach to recovery under Table 2.3.

Anglers are already highly regulated and must have a valid recreational fishing licence or deemed licensed to legally fish in Ontario, follow seasons and catch/size limits and adhere to all relevant rules and regulations outlined in various pieces of legislation including the *Ontario Fishery Regulations* and the *Fish and Wildlife Conservation Act*. A long-standing winter fishing sanctuary exists in APP from January 1st to the Friday before the fourth Saturday in April and from December 1st to December 31st, live fish may not be used as bait or possessed for use as bait in the park, and anglers must follow Ontario's new bait management rules.

What sort of measurable ecological gains will be achieved by managing motorboat and angling activity at an even greater extent than what is already being done? Overregulation can result in regulation fatigue and can push people away from visiting APP, participating in angling, and helping fund park activities and the Fish and Wildlife Special Purpose Account. Further restrictions could be a disservice to the recovery Lake Whitefish species pairs by unintendedly shutting out important stewards like anglers.

While the cleaning station has been used regularly, park staff have indicated uptake has been inconsistent relative to the boat traffic on Lake Opeongo. One alternative approach to preventing introductions of AIS is making the cleaning station mandatory prior to launching a boat. Although this defensive management strategy likely won't be popular with park visitors, and may cause congestion at the launch, it would be more effective in addressing all boat types (i.e., power-driven, manually-driven) and wouldn't rely on voluntary use.

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The Ministry of Environment, Conservation and Parks (MECP) could also explore opportunities using the park's Camis reservation system by gathering information and flagging higher risk activities at the point of campsite bookings through a questionnaire (i.e., frequency of trips, travel distance, cleaning behaviour). Risk tolerances could be established for these categories (e.g., how many trips within a two-week period, location of primary residence, whether the visitor's boat has been cleaned) and, if any one of these risks is triggered, the Ministry could take measures to address the concern. For example, "riskier campers" could be identified during the reservation process and given step-by-step procedures for cleaning their boats or they could be required by a condition of entry to the park to wash their boats and equipment at designated cleaning stations prior to launching (the same could be done for day-use visitors).

Removing invasive bivalves

The OFAH recommends removing the section on "Invasive bivalves" under "Threats to survival and recovery" (section 1.6) because dreissenids (Zebra/Quagga Mussels) likely pose no significant threat to small- and large-bodied forms of Lake Opeongo Lake Whitefish. As indicated in the 2013 risk assessment by Therriault et al., there is very low probability of survival on the Canadian Shield through central Ontario (where APP is situated). This will facilitate a more targeted approach to the recovery of Lake Whitefish by focusing efforts and resources on greater threats like invasive zooplankton (e.g., Spiny Water Flea).

Unfinished business in Como Lake

Reid et al. (2017) theorized that the small- and large-bodied forms of Lake Whitefish in Como Lake were replaced by a single larger form of Lake Whitefish because of the invasion of Spiny Water Flea. This study is frequently cited and used as a cautionary tale even though the study failed to use small-mesh gill nets.

Although the original study in Como Lake reported catching small-bodied forms using larger gill nets (minimum stretched mesh size of 3.8 cm) (Bodaly et al., 1991), replicating these methods nearly three decades later (Reid et al., 2017) could continue to generate erroneous data. As evidenced by research conducted on Lake Opeongo, the importance of using small-mesh gill nets to capture dwarf forms of Lake Whitefish cannot be overemphasised (COSEWIC, 2018).

Prior to using Como Lake as an ongoing example of what could happen following an introduction of Spiny Water Flea, more studies must be conducted to confirm whether the species pair of Lake Whitefish is in fact extinct.

Multi-species approaches for the conservation of aquatic species at risk

Provincial and federal governments are moving towards multi-species approaches for the conservation of aquatic species at risk (SAR) including place-, threat-, species-, and ecosystem-based approaches. However, the recovery strategy narrowly focuses on a Lake Whitefish species pair that only occurs in Lake Opeongo without considering other unique populations of whitefish and ciscoes in APP.

Surveys in Big Trout Lake indicate the potential for a species pair of Lake Whitefish, Lake LaMuir has a pelagic form of Lake Whitefish and lacks a typical benthic form, and White Partridge Lake has a unique species pair of ciscoes. While these examples have yet to be assessed as distinct Designatable Units, the potential for SAR status under the ESA and/or *Species at Risk Act* is possible. As such, APP has a high potential as a candidate for multi-species approaches through a combination of place- and threat-based strategies. This could be achieved by applying conservation actions for multiple unique forms of whitefish and cisco found in the park to help address or mitigate the threat of Spiny Water Flea in a more holistic way. Anderson et al. notes in their 2014 study that providing greater access to cleaning stations in "hot spot locations" could be essential for improving biosecurity practices which could be done at key entrances to the park.

We appreciated the inclusion of installing signage at the Lake Opeongo boat launch and Annie Bay dam; however, this could be done in a strategic way. Signage could be put up more extensively throughout the park and in key areas (e.g., main access points, portages), especially where Spiny Water Flea was detected in 2022 (i.e., Kioshkokwi, Manitou, and North Tea Lakes).

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Innumerable protections, limited resources

There are greater than 2,200 waterbodies in Ontario where Lake Whitefish has been observed or confirmed by the Ministry of Natural Resources and Forestry (i.e., where other species pairs potentially exist). Each whitefish population is geographically isolated from each other, and each species pair is thus considered discrete and significant, potentially opening up innumerable protections that will undermine the conservation and recovery of lower-profile species.

Similarly, protections could extend to other valuable recreational sportfish that display variation below the species level including Lake Trout, Brook Trout, other salmon and trout species, ciscoes, and even Walleye (Ohlberger et al., 2008; Taylor, 1999; Johnston et al. 2012; Sheppard et al., 2018). Our worry is the cascading effect SAR listings could have on other Lake Whitefish populations and where this leads for the next game fish species that might be listed: what will be the cost in volunteers, enthusiasm, and funding when countless species and populations are rendered untouchable?

Engagement with Indigenous peoples

The ERO posting states MECP is seeking input for the preparation of the recovery strategy including Indigenous knowledge; however, it is unclear whether Indigenous communities have been adequately engaged. For instance, no Indigenous groups, organizations, representatives, etc., are mentioned in the Acknowledgments of the report and the services listed under the consultant's website don't appear to include Indigenous expertise either.

The 52-page report fails to outline opportunities for Indigenous peoples to contribute to the active recovery of whitefish making the consultation come across as a formality. When the Ministry is limited in terms of staffing and resourcing, failing to meaningfully engage with Algonquin (and Metis) Peoples who share traditional territory among the park could be a serious missed opportunity.

There is knowledge and understanding that can only be learned through these ancient relationships. First Nations have had a long history of harvesting Lake Whitefish, somewhere between 3,000 and 1,000 B.C. in the Great Lakes (Ebener et al. 2008), and some villages were even specifically established next to the spawning grounds of Lake Whitefish (Kinietz 1965; Cleland 1982). We hope the final recovery strategy builds off these experiences to better conserve Lake Opeongo Lake Whitefish now and into the future.

Closing remarks

In general, the OFAH supports the monitoring and assessment, research, and education and outreach approaches outlined in the recovery strategy but would like the following considerations to be accounted for in the final plan:

1. Remove incidental angler by-catch as a threat to the survival and recovery of Lake Opeongo Lake Whitefish.
2. Consider all boat types (motorized and non-motorized) as potential vectors for AIS and manage accordingly.
3. Explore options for boat cleaning stations, leverage the Camis reservation system to identify "risky campers" and manage them appropriately.
4. Remove invasive bivalves from the recovery strategy.
5. Conduct further research into the presence/absence of Lake Whitefish species pairs in Como Lake.
6. Implement multi-species approaches for the conservation of unique populations of whitefish and cisco in the park.
7. Consider how innumerable protections could undermine SAR funding and recovery in the province.
8. Fully engage Indigenous communities and incorporate their knowledge and understanding of whitefish in the recovery strategy.

Considering Lake Whitefish is a sought-after, valuable recreational resource and holds special cultural significance with many Indigenous communities, we feel the comment period is too short and the timing during summer is inappropriate. Moreover, we are surprised that MECP has not reached out directly to engage the APP Fisheries Advisory Council. Members include the OFAH, Algonquins of Ontario, government staff, lease holders, business owners, researchers, and academics, and would be an ideal platform for collaboration on recovery strategies for Lake Opeongo Lake Whitefish.

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Thank you for consideration of our feedback. We look forward to future developments on the recovery strategy.

Yours in Conservation,

Adam Weir
Fisheries Biologist

AW/jb

cc: OFAH Board of Directors
OFAH Fisheries Advisory Committee
Angelo Lombardo, OFAH Executive Director
Matt DeMille, OFAH Director, Policy & Programs
Mark Ryckman, OFAH Manager, Policy
Chris Robinson, OFAH Manager, Programs
OFAH Policy & Programs Staff

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