

# ONTARIO FEDERATION OF ANGLERS & HUNTERS



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RE: Lake Whitefish (*Coregonus clupeaformis*) Opeongo Lake large and small-bodied populations

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 various documents on the small- and large-bodied Lake Opeongo Lake Whitefish, including the Committee on the Status of Endangered Wildlife in Canada's (COSEWIC) Assessment and Status Report (2018), and offer the following feedback for your consideration. For multiple reasons, the OFAH is opposed to listing the coevolved species pair of Lake Whitefish as *Threatened* under the *Species at Risk Act* (SARA) and cautions Fisheries and Oceans Canada (DFO) on the unintended consequences of listing. We hope the key points presented here provide better direction for future, similar listings and offer alternative approaches to the conservation and recovery of aquatic species at risk (SAR).

## **Cultural significance and social values**

Lake Whitefish is a sought-after recreational sportfish, important commercial resource, and holds special cultural significance with Indigenous communities across Ontario. The Ministry of Natural Resources and Forestry's (MNRF) Fish ON-Line GIS application indicates, in Ontario alone, there are greater than 2,200 waterbodies where Lake Whitefish have been observed or confirmed, notwithstanding other Lake Whitefish fisheries that go undocumented. As evidenced by Ebener et al. (2008), for time immemorial, First Nations have had a long history of harvesting Lake Whitefish (somewhere between 3,000 and 1,000 B.C. in the Great Lakes) and historical records indicate some villages were specifically established next to the spawning grounds of Lake Whitefish (Kinietz 1965; Cleland 1982). While this long-standing relationship may not be the case for everyone, where they are plentiful in Ontario, Lake Whitefish remain highly prized and are one of the most targeted fish species in some inland fisheries (MNRF, 2002).

## **Species at risk assessments and designations**

In April 2018, COSEWIC designated the sympatric forms of Lake Opeongo Lake Whitefish as *Threatened* and the Committee on the Status of Species at Risk in Ontario (COSSARO) chose to simply follow these determinations. On January 26, 2022, the two forms of Lake Whitefish were designated as *Threatened*, added to the Species at Risk in Ontario list, and the species and their habitats became provincially protected under the Endangered Species Act (ESA, 2007).

Unlike the federal SARA process for aquatic SAR where DFO conducts socio-economic analyses prior to listing under Schedule 1 (Turcotte et al., 2021), Ontario's ESA provides immediate protections based on the unchallengeable conclusions made by COSSARO. We urge DFO to provide better oversight and guidance to provinces/territories to avoid situations like these and fully support having a built-in delay requirement (a 'pause button') prior to SAR protections taking effect. This approach hinges on improvements being made to interagency communication, coordination, and cooperation between all levels of government including with the independent assessment committees (i.e., COSSARO, COSEWIC).

**Using a multi-species approach**

COSEWIC's Assessment and Status Report (2018) and, subsequently, the immediate listings that followed at the provincial level, has led to Ontario being in full-protection mode without providing adequate consideration of the social, cultural, and economic values associated with Lake Whitefish. Any additional SAR designations at the federal level will only further complicate an already complicated situation. Not only does this approach provide ineffective protection within the context of preserving social values and needs (i.e., Indigenous and non-Indigenous), but these inflexible legislative mechanisms conflict with DFO's own proposed policies for applying multi-species approaches to conserving and recovering aquatic SAR. For instance, habitat is not the limiting factor for Lake Whitefish species pairs; rather, their persistence has been compromised by the establishment of aquatic invasive species (AIS) or the threat of introductions (e.g., Spiny Waterflea). Therefore, the multi-species approach to Lake Whitefish is clearly threat-based and requires conservation actions to address or mitigate AIS that affects multiple SAR in a similar way.

**Angling – not a threat**

In this case, anglers are on the chopping block when it comes to federal and/or provincial SAR listings, but fishing is not the threat. Creel surveys on Lake Opeongo indicate fishing pressure for Lake Whitefish is minimal; moreover, a fish sanctuary already exists in Algonquin Provincial Park from January 1<sup>st</sup> to the Friday before the fourth Saturday in April and throughout the month of December. In fact, since 1992, less than two-hundred Lake Whitefish have been kept on Lake Opeongo (annual average of seven harvested), further reinforcing that whitefish are not frequently targeted or even incidentally captured (Colm and Drake, 2022). This also demonstrates the effectiveness of leveraging other pieces of legislation and regulations to conserve/restore aquatic species prior to listing under SARA and/or the ESA (i.e., *Ontario Fishery Regulations, Fish and Wildlife Conservation Act, Invasive Species Act, Provincial Parks and Conservation Reserves Act, Fisheries Act*).

Similarly, other examples exist where summer, winter, and even subsistence fishing occurs but with no direct evidence that these activities pose a threat to Lake Whitefish species pairs (e.g., Como Lake, Yukon territory lakes) (COSEWIC, 2018). Therefore, why is DFO considering SARA protections when protections already exist at the provincial level? This will only negatively impact community stewardship and fundraising opportunities for restoration and doesn't incentivize conservation or create a sense of ownership. Conversely, sustainable harvest creates value, value promotes stewardship, and stewardship benefits species.

Special protections and designations can unintentionally shut important stakeholders, like anglers, out of the process of conserving fish and fish habitat and helping achieve conservation goals and objectives, including restoration, recovery, and rehabilitation. It can take years to move through the arduous process of reinstating resource-based activities, all the while, potentially the greatest stewards and assets for some aquatic SAR (anglers) become disconnected from the fisheries they are so passionate about. Unfortunately, because of the provincial ESA designations for Lake Opeongo Lake Whitefish, this is already the case for Ontario anglers.

**Innumerable protections, limited resources**

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. As we see it, designating these whitefish ecotypes will create a duty and responsibility to investigate and protect all whitefish fisheries where dwarf and normal forms are found as well as potentially extending protections 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). Thus, our greatest concern 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?

The speciation of Lake Whitefish within and between populations make it very appealing to researchers. However, to date, no “systematic search effort” has ever been done on the distribution of Lake Whitefish and Lake Whitefish pairs in Ontario or Canada (COSEWIC, 2018; COSSARO, 2020), and their discovery are “the result of more detailed, localized research projects” (COSEWIC, 2018). Furthermore, word-of-mouth through a fisheries biologist with the MNRF in Kenora, Ontario, led to the study done by Bodaly et al. (1991) on sympatric presence of dwarf and normal forms of Lake Whitefish on Como Lake (*Personal Communications*, 2022).

Thus far, studies in Ontario have come about because of the presence of a research station and reports that were heard through the grapevine. However, if we are serious about the conservation and recovery of sympatric pairs of Lake Whitefish and other fish that exhibit variation below the species level, there is an obligation to look at all lakes with extant populations. From our perspective, SAR protections cannot be given to a species pair in one lake without considering the 2,200+ waterbodies in Ontario where Lake Whitefish have also been observed or confirmed by the MNRF (i.e., where other species pairs potentially exist), as well as extending this search to the rest of Canada: an impossible undertaking to say the least.

**Better recognition of Indigenous perspectives**

At a time when a great degree of emphasis is deservedly placed on inclusion and reconciliation with Indigenous peoples, there appears to be insufficient consideration of these perspectives with respect to the widespread outcomes SAR listings for Lake Whitefish could have. The participants for the Recovery Potential Assessment of Lake Whitefish (2022) does not appear to include Indigenous representation, which seems to be the case for many of the supporting documents on Lake Opeongo Lake Whitefish. In Ontario, SAR designations for Lake Whitefish exist because of COSSARO’s uncontested decision-making authorities; however, it’s difficult to determine if the independent committee has expertise in disciplines related to Indigenous Ecological Knowledge. We recognize this public consultation extends to possible ecological, cultural, and economic impacts of listing or not listing the Lake Whitefish forms but, again, we’re left wondering how information has been communicated, what communities and stakeholder groups have been engaged, and to what extent the issues we’ve identified have been brought forward and/or are being considered in this context.

**Sources of uncertainty**

Aside from the major unknown of how many co-occurring species pairs of whitefish there are in Ontario and across Canada, there are also numerous uncertainties with respect to Lake Opeongo Lake Whitefish. DFO (2022) note important life history information of both populations is lacking, available data and information is outdated, the true population structure is unknown, and there are other knowledge gaps related to abundance and population trends, habitat use, and distribution throughout the lake. With these uncertainties in mind, how can DFO justify listing these forms of Lake Whitefish under SARA at this time? Similarly, modelling done by Fung et al. (2022) identify areas that should be strengthened. Examples include data discrepancies between reports, various assumptions, inefficient sampling gear, unknowns related to reproductive isolation, and additional research into the impacts of AIS.

We agree, there are examples where a lack of full scientific certainty should not be used as a reason for postponing conservation measures to prevent further declines of imperiled species. However, in the face of the demonstrable uncertainties for the Lake Opeongo species pair and the countless other unknowns for whitefish populations Canada-wide, this is a misuse of the Precautionary Principle. If whitefish need protection, they should be managed at an appropriate scale using a landscape-level approach that targets the serious or irreversible damage of AIS as opposed to a species-based approach.

**The fate of species at risk in Canada**

The Living Planet Report Canada (2020) indicates close to an average of sixty percent of Canadian SAR assessed by COSEWIC have declined between 1970 to 2016. Favaro et al. (2014) uncovered similar findings and determined over eighty-five percent of the 350+ SAR in Canada which have had status reassessments have either seen a decline or no status change. This puts into question the effectiveness of past and current systems used for the conservation and recovery of SAR and their listings under SARA. What will be the fate of Lake Opeongo Lake Whitefish species pairs if they are listed? Or the multitudes of other co-occurring species pairs across Canada?

Because research on critical habitat is expensive and time-consuming (Turcotte et al., 2021) and due to inadequate funding and resourcing, government agencies are rarely capable of reversing species declines. Ten years after species are listed under SARA, SAR continue a downward trajectory of nearly thirty percent on average (WWF-Canada, 2017). One of the major contributors to fish and fish habitat losses across Canada, including declines related to SAR, is cumulative effects caused by routine works, undertakings, or activities (WUAs). There are innumerable projects that are going unchecked and unaccounted for. As such, we urge DFO to leverage the *Fisheries Act* and/or related policies under the Fish and Fish Habitat Protection Program (FFHPP) to offset these losses by implementing a fee-in-lieu requirement for projects being permitted to proceed via Letters of Advice or being managed under Codes of Practice or Prescribed Works. Though not ideal, this approach would at least provide some level of compensation where fish and fish habitat losses are currently not being regained. Moreover, the fees-in-lieu collected could go towards a conservation bank for SAR restoration/research projects, where funding is severely lacking.

**Alternative strategies**

In the case of species that show considerable phenotypic plasticity within and between populations, coupled with the development of powerful genetic tools to partition populations in an almost infinite number of ways, we are at a stage in SAR conservation that requires alternative, practical solutions to recovery. We agree with DFO (2022) that there should be enhanced promotion and public awareness campaigns for anglers, not only for visitors to the park, but also throughout Ontario and across Canada. Conducting early detection surveillance or monitoring for AIS is a critical step and could build off public reporting tools and mobile invasive species tracking systems already available in Ontario (e.g., Invading Species Hotline, EDDMaps). However, if the focus is solely on two designatable units (DUs) in Lake Opeongo, how many other whitefish populations with coevolved species pairs will be threatened by AIS if broader consideration isn't given to these fisheries?

The strategy must implement a multi-species approach to whitefish conservation that is preventative but also includes establishing emergency response plans and policies that crosscuts multiple levels of government to carry out these duties. DFO has the ability to leverage conservation initiatives like OFAH's Invading Species Awareness Program to combat AIS, including broader implementation of boat washing stations under the *Clean, Drain, Dry* program within Algonquin Provincial Park and elsewhere in Canada. To this, we would like to see the Department put more funding and resources into AIS research, prevention, and management, and provide greater funding streams to help aid in the conservation/recovery of aquatic SAR.

The sale of fishing, hunting, and trapping licenses generates tens of millions of dollars annually for Ontario's fish and wildlife program. As conservationists, anglers can be used to help generate funding for species and habitat recovery. This was a missed opportunity for the provincial ESA listings of DUs of Lake Sturgeon which put a halt to fishing, created barriers to recovery, and stalled restoration activities from happening. We don't want to see the same stagnancy overcome other valuable sportfish including Lake Whitefish. Anglers have demonstrated their value in terms of citizen science, improving data deficiencies, and providing robust assessment and monitoring information (e.g., Lake Ontario Atlantic Salmon Restoration Program, Muskies Canada Angler Log Program). With an impractically large number of lakes to be investigated that could potentially have sympatric species pairs, one of the few available opportunities to improve the knowledge on different forms of whitefish is to look at innovative approaches using anglers

**Unfinished business in Como Lake**

As DFO is already engaged in gathering feedback on whether to federally list species pairs of Lake Whitefish in Lake Opeongo, we would like to take the opportunity to go on record about whitefish in Como Lake. In April 2018, the Como Lake small- and large-bodied populations were designated as *Extinct* by COSEWIC; however, surveys carried out by Reid et al. (2017) that were used as the basis for COSEWIC's determinations, failed to use small-mesh gill nets. This oversight could very well explain why no small-bodied forms were captured; as such, the designations are premature and require more conclusive data prior to coming to this endpoint.

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). Though the original study in Como Lake caught 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 could be a significant misstep (Reid et al., 2017). There is a need to build off knowledge gained on Lake Opeongo to help guide appropriate strategies and multi-species approaches for Lake Whitefish conservation and recovery across Canada.

These shortcomings call into question the decisions made by COSEWIC and reinforces the need to address information gaps and data deficiencies prior to moving forward with SAR designations for Lake Whitefish ecotypes. DFO could consider leveraging current provincial/territorial monitoring programs; however, surveys conducted in Ontario do not include sufficient data to distinguish typical Lake Whitefish from a species-pair (COSSARO, 2020). This likely explains why no small-bodied forms were captured in Como Lake under the MNR's Broad-scale Monitoring Program in 2011 and 2016. Again, prior to preserving variation below the species level, there must first be a targeted inventory of extant populations of small- and large-bodied forms of Lake Whitefish. This can only be made possible by providing sufficient funding and resourcing to provincial/territorial agencies, enhancing current monitoring programs, improving intergovernmental collaboration/coordination, and exploring innovative opportunities (i.e., citizen science).

**Closing remarks**

The OFAH has extensive experience with SAR legislation at both the federal and provincial levels including having staff (professional biologists by training) participate on the federal Species at Risk Advisory Committee and the provincial Species at Risk Program Advisory Committee. As a large stakeholder group who has had species of interest impacted by SAR protections, we understand the fallout from listings on angling and hunting communities and the impact on active stewardship on the landscape. We also coordinate several conservation programs that address some of the primary threats to native species – habitat loss (ALUS Peterborough, Lake Ontario Atlantic Salmon Restoration Program) and invasive species (Invading Species Awareness Program).

Our experiences and close ties to SAR demonstrate that we deeply value imperiled fish and wildlife and their habitats. At the same time, we recognize the importance of enhancing legislation and regulations, as well as exploring non-legislative approaches to conservation by leveraging stewards like anglers, hunters, and trappers, to help accomplish recovery goals and objectives. We have described why DFO should not list the small- and large-bodied Lake Opeongo Lake Whitefish as *Threatened* under SARA. Listing would undoubtedly lead to innumerable protections that would undermine SAR conservation/recovery in Canada, as well as degrade the social and cultural values of Lake Whitefish for Indigenous and non-Indigenous Canadians alike. We hope to work with DFO on ways to improve aquatic SAR conservation through the proposed framework under the FFHPP and look forward to future consultation and engagement. Thank you for your time and consideration of our comments.

Yours in Conservation,



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