

Cutlip Minnow

Ontario Government Response Statement



Photo: New York State Department of Environmental Conservation

PROTECTING AND RECOVERING SPECIES AT RISK IN ONTARIO

Species at risk recovery is a key part of protecting Ontario's biodiversity. Biodiversity – the variety of living organisms on Earth – provides us with clean air and water, food, fibre, medicine and other resources that we need to survive.

The *Endangered Species Act, 2007* (ESA) is the Government of Ontario's legislative commitment to protecting and recovering species at risk and their habitats. As soon as a species is listed as extirpated, endangered or threatened under the ESA, it is automatically protected from harm or harassment. Also, immediately upon listing, the habitats of endangered and threatened species are protected from damage or destruction.

Under the ESA, the Ministry of Natural Resources (the Ministry) must ensure that a recovery strategy is prepared for each species that is listed as endangered or threatened. A recovery strategy provides science-based advice to government on what is required to achieve recovery of a species.

GOVERNMENT RESPONSE STATEMENTS

Within nine months after a recovery strategy is prepared, the ESA requires the Ministry to publish a statement summarizing the government's intended actions and priorities in response to the recovery strategy. The recovery strategy for the Cutlip Minnow (*Exoglossum maxillingua*) in Ontario was completed on May 31, 2013 (http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/mnr_sar_rs_ctlp_mnw_en.pdf).

The response statement is the government's policy response to the scientific advice provided in the recovery strategy. All recommendations provided in the recovery strategy were considered and this response statement identifies those that are considered to be appropriate and necessary for the protection and recovery of the species. In addition to the strategy, the response statement is based on input from stakeholders, other jurisdictions, Aboriginal communities and members of the public. It reflects the best available traditional, local and scientific knowledge at this time and may be adapted if new information becomes available. In implementing the actions in the response statement, the ESA allows the Ministry to determine what is feasible, taking into account social and economic factors.

The Cutlip Minnow is a small to medium sized minnow, measuring an average length of 100 mm. It has a stout body and blunt snout with colour varying from olive to black on the back, grey or silvery on the sides, and with a white to light coloured belly. It is easily distinguished by its unique tri-lobed lower jaw, with a bony lobe in the middle, and two fleshy lobes on either side.

MOVING FORWARD TO PROTECT AND RECOVER CUTLIP MINNOW

The Cutlip Minnow is listed as a threatened species under the ESA, which protects both the animal and its habitat. The ESA prohibits harm or harassment of the species and damage or destruction of its habitat without authorization. Such authorization would require that conditions established by the Ministry be met.

The Cutlip Minnow is not known to have had a wide distribution in Canada and can be found only in Ontario and Quebec. In Ontario, the Cutlip Minnow is found only in the south eastern portion of the province, in the St. Lawrence and lower Ottawa River drainage areas. The Cutlip Minnow is commonly found in fast-flowing reaches of medium-sized warm and cool water streams, with clear to tea-coloured water, and a mixture of gravel, cobble, and sand over firm rocky substrates.

Cutlip Minnow populations currently occur within the North Raisin River and Raisin River, Little Rideau Creek, Hosaic Creek and the St. Lawrence River. It appears to no longer exist in the Delisle River where it was historically documented. Although the Cutlip Minnow has disappeared from some historical sites, new occurrences have been found in small populations in the St. Lawrence River and connected tributaries. Due to limited study of Cutlip Minnow in Ontario there are knowledge gaps about the species distribution, specific habitat needs, species interactions, and invasive species impacts. More information is needed to inform threat abatement, mitigation, and recovery. Improving habitat conditions at current and historical sites, such as the reduction of turbidity, sedimentation, and contaminants, and rehabilitating hardened shorelines is important to ensure the persistence of Cutlip Minnow in Ontario and to encourage natural recolonization of formerly occupied habitat.

Several activities and factors have been identified as potential threats to Cutlip Minnow; however more research is needed to determine their impact on the species in Ontario. These potential threats are primarily linked to water quality and include siltation (turbidity and sedimentation), dredging, shoreline or channel alterations, contaminants, invasive species such as Round Goby, and bait harvest. It is likely that water quality has been reduced across the species' range in Ontario as a result of run-off over time from agricultural and urban lands in the area. The harsher climatic conditions found in Ontario, at the northern portion of its range, are thought to shorten the lifespan of Cutlip Minnow compared to more southern populations. The species' reported preference for warm water streams may also limit its ability to expand its range farther north.

The government's goal for the recovery of the Cutlip Minnow is to maintain and increase numbers in existing populations, and where feasible, to restore habitat quality in formerly occupied locations that have the potential for natural recolonization.

Protecting and recovering species at risk is a shared responsibility. No single agency or organization has the knowledge, authority or financial resources to protect and recover all of Ontario's species at risk. Successful recovery requires inter-governmental co-operation and the involvement of many individuals, organizations and communities.

In developing the government response statement, the Ministry considered what actions are feasible for the government to lead directly and what actions are feasible for the government to support its conservation partners to undertake.

GOVERNMENT-LED ACTIONS

To help protect and recover the Cutlip Minnow, the government will directly undertake the following actions:

- Continue to implement the Ontario Invasive Species Strategic Plan to address the invasive species (e.g., Round Goby) that threaten Cutlip Minnow.
- Educate other agencies and authorities involved in planning and environmental assessment processes on the protection requirements under the ESA.
- Encourage the submission of Cutlip Minnow data to the Ministry's central repository at the Natural Heritage Information Centre.
- Undertake communications and outreach to increase public awareness of species at risk in Ontario.
- Protect the Cutlip Minnow and its habitat through the ESA.
- Support conservation, agency, municipal and industry partners, and Aboriginal communities and organizations to undertake activities to protect and recover the Cutlip Minnow. Support will be provided where appropriate through funding, agreements, permits (including conditions) and/or advisory services.
- Establish and communicate annual priority actions for government support in order to encourage collaboration and reduce duplication of efforts.

GOVERNMENT-SUPPORTED ACTIONS

The government endorses the following actions as being necessary for the protection and recovery of the Cutlip Minnow. Actions identified as "high" will be given priority consideration for funding under the ESA. Where reasonable, the government will also consider the priority assigned to these actions when reviewing and issuing authorizations under the Endangered Species Act. Other organizations are encouraged to consider these priorities when developing projects or mitigation plans related to species at risk. The government will focus its support on these high-priority actions over the next five years.

Focus Area: **Inventory and Monitoring**

Objective: Improve the understanding of current population dynamics, distribution, and abundance.

Actions:

1. **(HIGH)** Develop and implement a standardized long-term monitoring program to evaluate population abundance and health at current and historical locations within the species' range.
 - Conduct targeted surveys to determine abundance at known sites and confirm extirpation at historical sites;
 - identify age classes present at known locations to assess the health of the populations; and,

- assess habitat characteristics at current and historical locations to determine sedimentation, turbidity, and contaminant levels, and to monitor changes to water quality.
2. Conduct targeted sampling at priority sites with suitable habitat conditions within the species' current range to identify additional populations.

Focus Area: Research

Objective: Increase knowledge of the species' threats and habitat needs.

Actions:

3. **(HIGH)** Analyze preferred habitat characteristics and water quality preferences to better understand the species' habitat needs.
4. Investigate seasonal migration, movements, and habitat use for all life stages in healthy Cutlip Minnow populations.
5. Evaluate the impacts of other aquatic species on Cutlip Minnow, including potential competition for resources from native fish species (e.g. Common Shiner) and invasive species (e.g. Round Goby).

Focus Area: Management and Awareness

Objective: Improve habitat conditions and increase awareness among landowners, land managers, and Aboriginal communities about the species protection.

Actions:

6. **(HIGH)** Rehabilitate degraded habitat at current and historical locations of Cutlip Minnow to facilitate natural recolonization. This may include activities such as stabilizing eroding shorelines with native vegetation, rehabilitation of hardened shorelines, and reducing pesticide, herbicide and nutrient inputs.
7. Work with landowners, conservation authorities, and Aboriginal communities and organizations to minimize threats to the species' habitat by encouraging:
 - the development and implementation of Environmental Farm Plans and Nutrient Management Plans;
 - incorporating best management practices around the species habitat, such as using riparian buffers to reduce soil erosion, agricultural runoff, pesticides and other contaminants; and,
 - sharing information, including Aboriginal Traditional Knowledge, about Cutlip Minnow and its habitat.
8. Increase awareness of methods and precautions to prevent the spreading of invasive species into new waters and encourage the use of invasive species reporting systems, such as the Invading Species Hotline, at <http://www.invasivetrackingsystem.ca/index.php>

IMPLEMENTING ACTIONS

Financial support for the implementation of actions may be available through the Species at Risk Stewardship Fund, Species at Risk Research Fund for Ontario, or the Species at Risk Farm Incentive Program. Conservation partners are encouraged to discuss project proposals related to the actions in this response statement with the Ministry. The Ministry can also advise if any authorizations under the ESA or other legislation may be required to undertake the project.

Implementation of the actions may be subject to changing priorities across the multitude of species at risk, available resources and the capacity of partners to undertake recovery activities. Where appropriate, the implementation of actions for multiple species will be co-ordinated across government response statements.

REVIEWING PROGRESS

The ESA requires the Ministry to conduct a review of progress towards protecting and recovering a species not later than five years from the publication of this response statement. The review will help identify if adjustments are needed to achieve the protection and recovery of the Cutlip Minnow.

ACKNOWLEDGEMENT

We would like to thank all those who participated in the development of the "Recovery Strategy for Cutlip Minnow (*Exoglossum maxillingua*) in Ontario" for their dedication to protecting and recovering species at risk.

For additional information:

Visit the species at risk website at ontario.ca/speciesatrisk
Contact your MNR district office
Contact the Natural Resources Information Centre
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