

Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean

Ontario Government Response Statement



Photo: Environment Canada

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 life 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 the 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 multi-species recovery strategy for the Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean was completed on September 10, 2010 (http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/STDPROD_066930.html).

The response statement is the government's policy response to the scientific advice provided in the recovery strategy. 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 modified 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 Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean are five distinct freshwater mussels found in the rivers of southwestern Ontario, primarily those draining into Lake St. Clair and Lake Erie.

MOVING FORWARD TO PROTECT AND RECOVER NORTHERN RIFFLESHELL, SNUFFBOX, ROUND PIGTOE, MUDPUPPY MUSSEL AND RAYED BEAN

The Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean are protected as endangered species under the ESA. The ESA prohibits harm to or harassment of the species without authorization. Their habitat will be protected from damage or destruction under the Act by June 30, 2013.

Populations of Northern Riffleshell are found in the East Sydenham River and the Ausable River. There may also be a population remaining in the St. Clair River delta. The Snuffbox is found in the East Sydenham River, and a small, reproducing population has been confirmed in the Ausable River. The healthiest population of Round Pigtoe is found in the Sydenham River, but there may be populations remaining in the Grand River, the Thames River and the St. Clair River delta. The Mudpuppy Mussel may be at the northern limit of its range and is naturally rare, occurring only in the East Sydenham River. The Rayed Bean is found in the East Sydenham River and a small section of the North Thames River.

The main cause of the decline in lake populations is the presence of invasive species, such as the Zebra Mussel. Zebra Mussels attach themselves to the shells of native mussels and inhibit feeding, respiration and movement. Key threats to river populations include poor water quality from pollution and siltation and the loss of habitat. As the mussels require host fishes (or Mudpuppies in the case of the Mudpuppy Mussel) for their reproductive cycle, threats to the host species must be considered in addition to the direct threats to the mussels.

The government's goal for the recovery of all five mussels is to protect populations of the species and to improve the habitat where they occur. The government supports investigating the feasibility of augmenting the existing populations.

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 intergovernmental co-operation and the involvement of many individuals, organizations and communities.

In developing the multi-species government response statement, the Ministry considered what actions are feasible for the government to lead directly and what actions are feasible for the government's conservation partners to undertake with government support.

GOVERNMENT-LED ACTIONS

To help protect and recover the Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean, the government will directly undertake the following actions:

- Educate other agencies and authorities involved in planning and environmental assessment processes on the protection requirements under the ESA.
- Encourage other agencies to ensure that wastewater treatment plants and stormwater management facilities are functioning effectively so as to maintain or improve water quality in the habitat of Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean.
- Undertake communications and outreach to increase public awareness of species at risk in Ontario.
- Protect the Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean through the ESA. Apply habitat protection provisions of the Act by June 30, 2013.
- Support conservation, agency, municipal and industry partners in undertaking activities to protect and recover the Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean. Support will be provided through funding, agreements, permits (including conditions) and advisory services.
- Establish and communicate annual priority actions for government support in order to encourage collaboration and reduce duplication of effort.

GOVERNMENT-SUPPORTED ACTIONS

The government endorses the following actions for the protection and recovery of the Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean. Actions identified as “high” will be given priority consideration for funding or for authorizations under the ESA. The government will focus its support on these high-priority actions over the next five years.

Focus Area: **Research and Monitoring**

Objective: Address knowledge gaps related to the distribution, abundance, demographics and habitat use of existing mussel populations and host fishes.

Actions:

1. **(HIGH)** Implement a monitoring program using the established network of permanent monitoring stations to track changes in the distribution and abundance of the mussels and their host fishes, habitat use and the presence of invasive mussel species.
2. **(HIGH)** Determine the habitat requirements for all life stages.

3. **(HIGH)** Continue testing to determine the fish hosts of the Round Pigtoe.
4. Investigate the feasibility of augmenting the existing populations and of establishing actively managed refuge sites to minimize the impacts of invasive mussels.

Focus Area: Threat Management

Objective: Confirm or identify threats, evaluate their relative importance and implement remedial actions to minimize their impacts.

Actions:

5. **(HIGH)** Encourage development and use of Environmental Farm Plans and Nutrient Management Plans to incorporate best management practices (BMPs) for rural streams and drains. These BMPs should include restoring a healthy riparian zone, reducing access by livestock, establishing manure-storage and runoff collection systems, encouraging conservation tillage and improving faulty septic systems.
6. Work with landowners, drainage supervisors, engineers and contractors to limit the effects of drainage activities on mussel habitat.
7. Identify and evaluate threats to all life stages to inform protection and recovery actions.

Focus Area: Awareness and Stewardship

Objective: Increase public awareness of the distribution, threats and stewardship opportunities related to these mussel species.

Actions:

8. Develop materials and programs to increase public awareness of these mussels, the potential impacts of invasive species and stewardship options.
9. Work with existing ecosystem recovery efforts to implement recovery actions on a watershed basis.
10. Promote and enhance expertise in freshwater mussel identification and biology.

IMPLEMENTING ACTIONS

Financial support for the implementation of actions may be available through the Species at Risk Stewardship Fund, Species at Risk Farm Incentive Program or Community Fisheries and Wildlife Involvement 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 may be required to undertake the project.

Implementation of the actions may be subject to changes in priorities across the multitude of species at risk, availability of 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 toward protecting and recovering a species not later than five years from the publication of this response statement. The review will help determine whether adjustments are needed to achieve the protection and recovery of the Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean.

ACKNOWLEDGEMENT

We would like to thank all those who participated in the development of the “Recovery Strategy for the Northern Riffleshell, Snuffbox, Round Pigtoe, Mudpuppy Mussel and Rayed Bean 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
1-800-667-1940

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