

# Nodding Pogonia

## Ontario Government Response Statement



Photo: Allen Woodliffe

### 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 Nodding Pogonia (*Triphora trianthophora*) was completed on January 11, 2013 ([http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/stdprod\\_099157.pdf](http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/stdprod_099157.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.

Nodding Pogonia is a small orchid that produces one to seven (often three) greenish-white or magenta flowers on a purplish-green stalk about five to 30 cm in size. It lives in rich, moist maple-beech forests and obtains nutrients through fungi associated with its roots.

## MOVING FORWARD TO PROTECT AND RECOVER NODDING POGONIA

Nodding Pogonia is listed as an endangered species under the ESA, which protects both the plant 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.

Nodding Pogonia is uncommon throughout its global range, which extends throughout eastern North America, through Mexico to Panama. The species' conservation status is not considered secure anywhere in North America. In Canada, Nodding Pogonia is known only to occur in two locations in southwestern Ontario, at Rondeau Provincial Park and a private woodlot in Essex County. Some historical records indicate that Nodding Pogonia was previously found in the Niagara region; however, it is not known whether the species was once common in the Carolinian forests of Ontario, or if it was always rare in the province. In addition, Nodding Pogonia can grow or remain dormant underground for many years, only appearing above ground when conditions are right for flowering. This makes the species difficult to detect or reliably infer its absence without consistent surveys. Annual monitoring of Nodding Pogonia at Rondeau Provincial Park has been ongoing since 1986 and in 2008, 1,357 stems were counted in a portion of the suitable habitat. Additional stems may have also occurred in other areas of the habitat, but these areas were not surveyed. No plants have been observed at the second location in Essex County since 1987, but only occasional and incomplete surveys have been undertaken at this location since the late 1980s.

Nodding Pogonia has highly specialized requirements for successful reproduction to occur, which may be a limiting factor for this species. Requirements include suitable climate and moisture conditions to produce flowers, pollinators to pollinate the flowers (which all bloom at the same time for one day), dispersal of seeds to suitable habitat, and contact with a specific fungus for successful germination and establishment. Information about the species' population size in Ontario, the specific conditions required for growth and flowering, and the impacts of threats represent major knowledge gaps that create challenges for the species' recovery. Important threats likely include the disruption of fungal associations by invasive species (e.g. Japanese Barberry (*Berberis thunbergii*), Garlic Mustard (*Allaria petiolata*) and earthworms), and grazing by White-tailed Deer (*Odocoileus virginianus*) and slugs. Other potential threats include degradation or loss of habitat from Beech bark disease, loss of forest cover and changes in drainage.

Suitable habitat that meets the complex reproductive requirements of Nodding Pogonia is likely limited, and past attempts to artificially propagate or re-introduce the species in the wild have not proven successful. For these reasons, recovery efforts should focus on retaining and improving the viability of the existing populations. If future research provides additional information on methods for successful propagation and conditions for growth, the GRS goal may be re-evaluated.

**The government's goal for the recovery of Nodding Pogonia is to maintain or improve the viability of existing populations in Ontario.**

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 Nodding Pogonia, the government will directly undertake the following actions:

- Continue deer population monitoring and management at Rondeau Provincial Park to minimize the threat of overgrazing on Nodding Pogonia.
- Educate other agencies and authorities involved in planning and environmental assessment processes on the protection requirements under the ESA.
- Encourage the submission of Nodding Pogonia 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 Nodding Pogonia 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 Nodding Pogonia. Support will be provided 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 Nodding Pogonia. 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:** **Protection and Management**

**Objective:** Protect existing Nodding Pogonia populations and reduce or remove threats.

**Actions:**

1. **(HIGH)** Collaborate with landowners to implement best management practices (BMPs) that promote the recovery of Nodding Pogonia. BMPs may include woodlot management to improve habitat, invasive species removal or mitigation of other threats.

**Focus Area: Monitoring and Research**

**Objective:** Expand knowledge of Nodding Pogonia population size, condition, and threats.

**Actions:**

2. Develop and implement a standardized monitoring protocol for all existing populations. The protocol may include gathering information on:
  - population numbers and health;
  - reproductive success;
  - habitat characteristics such as vegetation type; and
  - the presence of threats.
3. Implement standardized surveys of suitable habitat to look for new populations, including known historic locations. Surveys should be conducted over several years to increase the likelihood of detection.
4. Evaluate the impact and severity of threats to Nodding Pogonia which may include:
  - invasive plants impacting the critical fungi associated with the roots of Nodding Pogonia;
  - earthworms altering the soil characteristics;
  - habitat degradation from loss of forest cover due to clearing or Beech bark disease; and
  - grazing by deer or other animals.
5. Research the conditions necessary for successful reproduction to occur, including length of dormancy, flowering, pollination, and dispersal distances to inform an adaptive management approach to recovery. Collaborate with other jurisdictions to share knowledge as appropriate.

**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 Nodding Pogonia.

## ACKNOWLEDGEMENT

We would like to thank all those who participated in the development of the "Recovery Strategy for the Nodding Pogonia (*Triphora trianthophora*) 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](http://ontario.ca/speciesatrisk)

Contact your MNR district office

Contact the Natural Resources Information Centre

1-800-667-1940

TTY 1-866-686-6072

[mnr.nric.mnr@ontario.ca](mailto:mnr.nric.mnr@ontario.ca)

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