

# Rusty-patched Bumble Bee

## Ontario Government Response Statement



Photo: Johanna Jones

### 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 Rusty-patched Bumble Bee was published on December 7, 2011 ([http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/STDPROD\\_086046.html](http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/STDPROD_086046.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 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 Rusty-patched Bumble Bee has a distinctive rusty-coloured patch bordered by yellow on the front half of its abdomen. The species was the fourth most common bumble bee in southern Ontario in the 1970s, but is now found only at Pinery Provincial Park.

## MOVING FORWARD TO PROTECT AND RECOVER RUSTY-PATCHED BUMBLE BEE

The Rusty-patched Bumble Bee is listed as an endangered 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.

Historically, the Rusty-patched Bumble Bee was widespread and common in eastern North America, reaching the northern limit of its range in southern Ontario and southwestern Quebec. The species has since suffered rapid and severe decline. Since 2002, the only known occurrence of the Rusty-patched Bumble Bee in Canada is at Pinery Provincial Park in Huron County, Ontario. The most prominent threats to the Rusty-patched Bumble Bee include the use of systemic pesticides, the spread of diseases from domestic bumblebees (used as pollinators in greenhouses) to wild bumblebees, and habitat loss.

**The government's goal for the recovery of the Rusty-patched Bumble Bee is to maintain the current population level, and if possible, encourage the natural expansion of self-sustaining populations into suitable areas of its current and historic range.**

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 Rusty-patched Bumble Bee, the government will directly undertake the following actions:

- Continue park restoration efforts, such as prescribed burning, in habitat where the Rusty-patched Bumble Bee has been found in Pinery Provincial Park.
- Educate other agencies and authorities involved in planning and environmental assessment processes on the protection requirements under the ESA.
- Encourage the submission of Rusty-patched Bumble Bee 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 Rusty-patched Bumble Bee and its habitat through the ESA. Develop and enforce a regulation identifying the specific habitat of the species.

- Support conservation, agency, municipal and industry partners and Aboriginal communities to undertake activities to protect and recover the Rusty-patched Bumble Bee. Support will be provided where appropriate 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 efforts.

### GOVERNMENT-SUPPORTED ACTIONS

The government endorses the following actions as being necessary for the protection and recovery of the Rusty-patched Bumble Bee. 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  
**Objective:** Improve knowledge of the Rusty-patched Bumble Bee ecology and threats.

**Actions:**

1. **(HIGH)** Determine the cause of the rapid and widespread decline of the Rusty-patched Bumble Bee.
2. Undertake research on basic biology such as phenology, response to restoration practices, population dynamics, overwintering, and foraging and nesting requirements.
3. Determine lethal and sub-lethal effects of pesticides, such as the neonicotinoids, on native bumble bee species. This research should be carried out only on species that are not currently declining.

**Focus Area:** Protection and Management  
**Objective:** Protect, maintain and improve habitat in Pinery Provincial Park.

**Actions:**

4. **(HIGH)** Develop and promote best management practices for landowners and greenhouse managers surrounding Pinery Provincial Park to reduce potential threats, such as the spread of pathogens and the effects of harmful pesticides.

**Focus Area:** Inventory and Monitoring  
**Objective:** Determine distribution and abundance of the Rusty-patched Bumble Bee.

**Actions:**

5. Develop and implement a Rusty-patched Bumble Bee survey and monitoring program for Pinery Provincial Park and recent historical locations (past 15 years).
6. Engage volunteers (e.g., field naturalist groups) to undertake surveys, using digital photographs to determine the presence or absence of the species.

## 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 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 Rusty-patched Bumble Bee.

## ACKNOWLEDGEMENT

We would like to thank all those who participated in the development of the "Recovery Strategy for the Rusty-patched Bumble Bee 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)  
[ontario.ca/mnr](http://ontario.ca/mnr)

