

# Red-headed Woodpecker

## Ontario Government Response Statement



Photo: Darren Smith

### Protecting and Recovering Species at Risk in Ontario

Species at risk recovery is a key part of protecting Ontario's biodiversity. *The Endangered Species Act, 2007* (ESA) is the Ontario government's legislative commitment to protecting and recovering species at risk and their habitats.

Under the ESA, the government 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.

Generally, within nine months after a recovery strategy is prepared, the ESA requires the government to publish a statement summarizing the government's intended actions and priorities in response to the recovery strategy. The response statement is the government's policy response to the scientific advice provided in the recovery strategy. In addition to the strategy, the government response statement considers (where available) input from Indigenous communities and organizations, stakeholders, other jurisdictions, and members of the public. It reflects the best available local and scientific knowledge, including Indigenous Knowledge where it has been shared by communities and Knowledge Holders, as appropriate, and may be adapted if new information becomes available. In implementing the actions in the response statement, the ESA allows the government to determine what is feasible, taking into account social, cultural and economic factors.

The Recovery Strategy for the Red-headed Woodpecker (*Melanerpes erythrocephalus*) in Ontario was completed on September 6, 2022.

Red-headed Woodpecker is a medium-sized bird, about 20 cm long, and is easily recognized by its vivid red head, neck and breast. The rest of the bird is white underneath and mostly black on top.

## Protecting and Recovering Red-headed Woodpecker

Red-headed Woodpecker 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 or complying with the requirements of a regulatory exemption.

Red-headed Woodpecker also receives protection under the *Migratory Birds Convention Act, 1994*, which protects adults and young birds, as well as their nests and eggs in Canada, and under the federal *Species at Risk Act, 2002*, as an endangered species.

Red-headed Woodpecker occurs only in North America, from southern Saskatchewan east to southeastern Quebec, and south throughout the eastern half of the United States of America (U.S.) to the Gulf of Mexico coast. During the breeding season the species is most abundant in the U.S. Midwest and Gulf Coast states. In Ontario, Red-headed Woodpecker is most numerous south of the Canadian Shield, in the Carolinian and Lake Simcoe-Rideau Ecoregions. It is also a regular breeder, although in small numbers, in the Rainy River area in northwestern Ontario. The Ontario distribution is estimated to represent approximately 4.3 per cent of the global breeding range and less than 0.6 per cent of the global breeding population for the species. The majority of the wintering range for Red-headed Woodpecker is in the U.S., but the species has been recorded during winter in southwestern Ontario.

Breeding habitat for Red-headed Woodpecker is mainly deciduous woodland habitat with sparse canopy cover, mature trees – especially oak species (Genus: *Quercus*) and American Beech (*Fagus grandifolia*) – and an open understory. In Ontario, the species typically breeds in oak savannah, orchards, areas of dead or dying trees, municipal parks, golf courses and agricultural landscapes. The presence of decadent trees (dead trees and trees with dead limbs, including diseased trees) are an especially important component of suitable breeding habitat. Less canopy cover, more coarse woody debris and longer dead limbs appear to be important drivers for the selection of breeding habitat. Breeding territory size has been found to range from 3.1 to 11.4 ha in the southern U.S. Breeding territory size has not been determined for Ontario, but the species has been noted to typically feed within 1 km of its nest. Large decadent deciduous trees are generally excavated to create nesting cavities, and cavity concealment by surrounding vegetation appears to be important for nest success. Wintering records of Red-headed Woodpecker in Canadian provinces have primarily involved individuals at feeding stations near oak forests or farmland.

Red-headed Woodpecker is omnivorous, with its diet varying based on the availability of food sources between seasons. In Ontario, insects (mainly aerial and those living on bark) make up most of the diet during spring migration. This proportion shifts over the summer as tree nuts (oak acorns and American Beech nuts), fruit, corn, and seed become more abundant. Insects consumed during the summer (either on trees, in the air, or on the ground) consist mostly of beetles but also include grasshoppers, caterpillars, wasps, domesticated bees and some ants. Corn, apples and tree nuts are important during autumn migration, and the species relies almost exclusively on tree nuts in the winter (and corn in years with low amounts of tree nuts), while invertebrates (mainly adult beetles) can make up a small portion during that season.

Red-headed Woodpecker populations seem to have undergone a long-term decline for at least the last 50 years. From 1970 to the mid 2010s, it is estimated that the abundance of Red-headed Woodpecker declined in North America by 86 per cent and in Ontario by 83 per cent. In the twenty-year period between the first (1981–1985) and second (2001–2005) Ontario Breeding Bird Atlases (OBBA), the overall probability of observing Red-headed Woodpecker declined by 64 per cent. During this time, the species' range appeared to shift southward from previously occupied areas as it was much less commonly recorded in the southern Canadian Shield and eastern Ontario. However, OBBA data show that the range has remained almost unchanged in the Rainy River area of northwestern Ontario.

There are several threats that may be having a cumulative effect on Red-headed Woodpecker in Ontario. The primary threats are the loss of nesting sites and degradation of suitable habitat, as well as a reduction in food supply (including reduced abundance and diversity of insects due to insecticide use, and reduced abundance of tree nuts due to tree diseases). Direct mortality from collisions with buildings, vehicles, utility towers, and power lines as well as competition with the introduced European Starling (*Sturnus vulgaris*), and predation by the domesticated cat (*Felis catus*) are other contributing threats. Predation by native Cooper's Hawk (*Accipiter cooperii*) and Sharp-shinned Hawk (*Accipiter striatus*) may also be contributing to the species' decline. Birdwatching and/or photography are potential threats to Red-headed Woodpecker but the severity of disturbance from these activities is unknown.

Given the importance of oak species and American Beech for the Red-headed Woodpecker's breeding habitat, Oak Wilt (*Ceratocystis fagacearum*; a fungal pathogen) and Beech Bark Disease (*Cryptococcus fagisuga*/*Neonectria* spp. complex; a combination of insect and fungus) may represent potential threats to the Red-headed Woodpecker. Oak Wilt has not yet been confirmed in Canada but was detected on Belle Isle (U.S.) in 2016, less than 1 km from the shores of Windsor, Ontario. The Emerald

Ash Borer (*Agrilus planipennis*), a beetle species native to eastern Asia, may also have implications for Red-headed Woodpecker. Further study is needed to assess the impacts of Oak Wilt, Beech Bark Disease and Emerald Ash Borer on Red-headed Woodpecker in Ontario.

Slowing the decline and achieving a self-sustaining population of Red-headed Woodpecker in Ontario will require appropriate and ongoing maintenance, restoration and/or creation of the habitat the species uses for breeding and foraging. It is important to acknowledge that ongoing declines in the U.S., including in states adjacent to Ontario, may impact Ontario's ability to recover the species. Research and monitoring are also needed to determine and track habitat use by Red-headed Woodpecker and improve understanding of ongoing threats. Increasing awareness of the species, its threats and best management practices is needed to support its protection and recovery.

### **Government's Recovery Goal**

The government's short-term goal for the recovery of Red-headed Woodpecker in Ontario is to halt the population decline over the next 10 years. The long-term goal is to achieve a self-sustaining population and to support natural increases in the species' abundance and distribution in Ontario.

### **Actions**

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 government 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 Red-headed Woodpecker, the government will directly undertake the following actions:

- Continue to protect Red-headed Woodpecker and its habitat through the ESA.
- Undertake communications and outreach to increase public awareness of species at risk in Ontario (e.g. through Ontario Parks Discovery Program, where appropriate).
- Continue to monitor populations and mitigate threats to the species and its habitat in provincially protected areas, where feasible and appropriate.

- Educate other agencies and authorities involved in planning and environmental assessment processes on the protection requirements under the ESA.
- Encourage the submission of Red-headed Woodpecker data to Ontario's central repository through the NHIC (Rare species of Ontario) project in iNaturalist or directly through the Natural Heritage Information Centre.
- Continue to support conservation, agency, municipal and industry partners, and Indigenous communities and organizations to undertake activities to protect and recover Red-headed Woodpecker. Support will be provided where appropriate through funding, agreements, permits and/or advisory services.
- Work with partners and stakeholders to support beneficial insects in Ontario through actions such as education and promoting integrated pest management and best management practices.
- Continue to implement the *Ontario Invasive Species Strategic Plan* (2012) to address the invasive species (e.g. Beech Bark Disease [*Neonectria faginata*], Emerald Ash Borer [*Agrilus planipennis*]) that may threaten Red-headed Woodpecker and its habitat.
- Continue to manage Crown forests in a manner that minimizes adverse impacts to species at risk and their habitats.
- Conduct a review of progress toward the protection and recovery of Red-headed Woodpecker within five years of the publication of this document.

### Government-supported Actions

The government endorses the following actions as being necessary for the protection and recovery of Red-headed Woodpecker. Actions identified as "high" may be given priority consideration for funding under the Species at Risk Stewardship Program. Where reasonable, the government will also consider the priority assigned to these actions when reviewing and issuing authorizations under the ESA. Other organizations are encouraged to consider these priorities when developing projects or mitigation plans related to species at risk.

#### Focus Area: Habitat Management and Protection

**Objective:** Maintain and, where feasible, increase the availability of suitable habitat in Ontario.

Loss of habitat, including suitable nesting and foraging areas, is thought to be a leading cause of the decline of Red-headed Woodpecker in Ontario. Key features of suitable habitat include decadent deciduous trees for nest building and the presence of nut-producing deciduous trees as a food source. Ensuring suitable habitat is available in the short-term will be important to slow the population decline, and strategic habitat management and securement will support long-term natural increases in the species' abundance and distribution



in Ontario. As land ownership varies across the species' distribution, a collaborative approach to habitat management and protection is critical to the protection and recovery of this species.

**Actions:**

1. **(High)** Undertake and evaluate management activities to maintain, improve and restore habitat for Red-headed Woodpecker in collaboration with local landowners, land managers, Indigenous communities and organizations, municipalities, forestry professionals and stewardship organizations. Consideration should be given to ensure that habitat conservation efforts are targeted to the most appropriate locations (e.g. areas with few or no European Starling populations). Management activities may include:
  - i. developing, promoting and implementing best management practices (BMPs) for the retention and continued supply of decadent deciduous trees (dead trees and trees with dead limbs)
  - ii. implementing techniques to reduce canopy coverage and understory density while maintaining or increasing the abundance of mature and decadent deciduous trees (e.g. conducting prescribed burns, mechanical removal of woody vegetation, tree or limb girdling)
  - iii. planting nut-producing trees (e.g. oak species) as appropriate, in habitat areas where declines of these trees have been documented
  - iv. monitoring and managing (as appropriate and feasible) invasive insects and pathogens posing a direct threat to habitat
2. Collaborate with local landowners, community partners and stewardship organizations to strategically identify and secure Red-headed Woodpecker habitat and encourage long term protection through existing land securement and stewardship programs and/or land securement agencies as opportunities arise.

**Focus Area: Research and Monitoring**

**Objective:** Increase knowledge of Red-headed Woodpecker's threats, habitat, ecology, distribution and abundance within Ontario.

A comprehensive understanding of the threats impacting Red-headed Woodpecker is needed to better focus protection and recovery efforts. Similarly, it is important to better understand the species' habitat characteristics and ecology to ensure efforts are directed in a manner that provides the greatest benefit to the species. Monitoring Red-headed Woodpecker and its habitat will help track progress and determine whether efforts to maintain or enhance habitat are successful.

**Actions:**

3. Investigate potential threats to the species including:
  - i. **(High)** assessing the range-wide severity of direct (e.g. ingestion of neonicotinoid-treated seed and crops) and indirect impacts (e.g. insect prey abundance, contamination of plant material consumed) of neonicotinoid and other insecticide use, according to time of year and habitat
  - ii. assessing the severity of direct mortality from collisions with building windows, wind turbines, moving vehicles, transmission lines and communication towers
  - iii. assessing the impact of predation pressure from Cooper's Hawk and Sharp-shinned Hawk, and competition from European Starling
  - iv. assessing the severity of disturbance from birdwatching and/or photography
4. Improve knowledge of habitat use, condition, and availability in Ontario to inform habitat protection, management, and enhancement. This may include:
  - i. assessing the impact of Beech Bark Disease and Emerald Ash Borer on the availability of food and nesting sites
  - ii. research into Red-headed Woodpecker home range and territory sizes
  - iii. research to increase the precision with which suitable habitat can be described, including research into how seasonal habitat use relates to diet
5. Measure nesting productivity, nesting success, fledgling survival, and survivorship throughout the year in Ontario to help determine whether population decline is due to factors on Ontario breeding grounds.
6. Monitor the species' distribution and population trends in Ontario, using established surveys and monitoring programs where appropriate, and refine understanding of the current and historical population abundance and distribution.
7. Collaboratively investigate the impact of threats occurring outside of Ontario (e.g. in wintering areas and along migration routes) on Red-headed Woodpecker.

**Focus Area: Stewardship and Awareness**

**Objective:** Increase public awareness of Red-headed Woodpecker, its habitat and threats, and promote stewardship of the species in Ontario.

Red-headed Woodpecker and its habitat is found on lands utilized for a variety of purposes. Therefore, the education and involvement of the public is a key factor in supporting recovery of the species, particularly to encourage use of best management practices for insecticide use, forest management and tree removal. Ensuring landowners are aware of the presence of the species and its threats will require collaboration between organizations with an emphasis on sharing the best available information. Increased promotion and volunteer participation in established survey and monitoring programs will further awareness of the species, as well as contribute to filling knowledge gaps.

**Actions:**

8. **(High)** Engage landowners, foresters, land managers, the agricultural sector and Indigenous communities and organizations to promote the retention of deciduous cavity trees, snags, dead limbs of trees and mast trees, where feasible and safe, in order to provide nest sites and food sources for Red-headed Woodpecker.
9. Develop and distribute materials or programs that increase awareness of landowners, land managers, and land users on topics relating to:
  - i. best forest management practices that will help recover Red-headed Woodpecker, such as harvesting wood outside of the species' breeding season
  - ii. volunteer participation in established surveys and monitoring programs, such as eBird or the Atlas of the Breeding Birds of Ontario
  - iii. raising awareness with rural landowners on the impact of predation by feral cats and ways this can be minimized

**Focus Area: Threat Management and Mitigation**

**Objective:** Reduce threats to the species and its food sources in Ontario.

Reduced food supply for Red-headed Woodpecker and direct mortality of the species from collisions with buildings, vehicles, utility towers, and power lines are potential threats to the species. Competition from European Starling, predation by Cooper's Hawk and Sharp-shinned Hawk and birdwatching and/or photography are potential contributing threats to Red-headed Woodpecker recovery. Determining the effectiveness of mitigation measures to address these threats will allow for appropriate threat management activities.



**Actions:**

10. Develop and promote best management practices to minimize threats to invertebrate food sources, such as promoting integrated pest management principles (in particular the use of insecticides with the lowest toxicity to birds and non-target insects), avoidance of insecticide application to field edges, and further reducing overall pesticide use.
11. Based on the outcomes of Action 3, develop, implement and assess the effectiveness of mitigation measures to address relevant threats to Red-headed Woodpecker as appropriate. This may include the following, as necessary:
  - i. guidelines or standards, as necessary to reduce the frequency of bird collisions with building windows, wind turbines, moving vehicles, transmission lines and communication towers
  - ii. methods to reduce the disturbance from birdwatching and/or photography
  - iii. approaches to reduce competition from European Starling and predation from Cooper's Hawk and Sharp-shinned Hawk

**Implementing Actions**

Financial support for the implementation of actions may be available through the Species at Risk Stewardship Program. Conservation partners are encouraged to discuss project proposals related to the actions in this response statement with Ministry of the Environment, Conservation and Parks staff. The Ontario government can also provide guidance about the requirements of the ESA, including whether an authorization or regulatory exemption may be required for the project and, if so, the authorization types and/or conditional exemptions for which the activity may be eligible.

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 coordinated across government response statements.

## Reviewing Progress

The ESA requires the Ontario government to conduct a review of progress towards protecting and recovering a species no later than the time specified in the species' government response statement, which has been identified as five years. The review will help identify if adjustments are needed to achieve the protection and recovery of Red-headed Woodpecker.

## Acknowledgement

We would like to thank all those who participated in the development of the Recovery Strategy and Government Response Statement for the Red-headed Woodpecker (*Melanerpes erythrocephalus*) 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 the Ministry of the Environment, Conservation and Parks

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