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Common Hoptree and Dwarf Hackberry

Ontario Government Response Statement



Photo: Rob Tervo



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 the Common Hoptree (*Ptelea trifoliata*) and the recovery strategy for Dwarf Hackberry (*Celtis tenuifolia*) in Ontario were completed on May 31, 2013 (http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/mnr_sar_rs_cmn_hpnr_en.pdf), and (http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/mnr_sar_rs_dwf_hkbry_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.

The Common Hoptree is a short-lived, shade intolerant deciduous tree that grows up to 10 m high. The trunk is often branched with reddish-brown coloured bark. The fruits consist of one to two seeds from a single stem that are surrounded by a flat circular wing of fibrous papery tissue.

The Dwarf Hackberry is a small deciduous shrub or small tree that may reach a height of up to 10 m but is usually one to four metres tall. It has light grey bark, one to a few trunks, and leaves that are symmetrical. It develops round, pea-sized, orange-brown fruits that produce a single seed.

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.

Given their similar habitat types and threats, the recovery efforts for Common Hoptree and Dwarf Hackberry are addressed collectively in a single government response statement.

MOVING FORWARD TO PROTECT AND RECOVER COMMON HOPTREE AND DWARF HACKBERRY

The Common Hoptree and Dwarf Hackberry are both listed as threatened species under the ESA, which protects both the plants and their habitats. The ESA prohibits harm or harassment of the species and damage or destruction of their habitat without authorization. Such authorization would require that conditions established by the Ministry be met.

The Common Hoptree occurs at seven naturally discontinuous locations along the north shore of Lake Erie and Lake Erie islands in southwestern Ontario. These locations are within the northern part of its North American range, which also extends into adjacent American states. The seven core areas are: Middle Island, Pelee Island, the Essex County shoreline (including the mainland portion of Point Pelee National Park), Walpole Island First Nation, Rondeau Provincial Park/Erieau, Port Burwell Provincial Park, and the Regional Municipality of Niagara. Several of the Ontario populations appear to be in a slight decline, however some populations that were thought to have been extirpated have since been rediscovered, and new populations have been located. There are currently 35 known existing populations in Ontario, with an estimated 96 percent of the population found within a 1.75km² area in Point Pelee National Park.

Like Common Hoptree, Dwarf Hackberry is at its northern distribution limit in southern Ontario. It exists in only six distinct locations in Pelee Island, Point Pelee National Park, Lambton County, and in three locations in Hastings County (Point Anne Alvar, Stirling Slope Complex Area of Natural and Scientific Interest (ANSI), and Salmon River Alvar ANSI, previously known as the Lonsdale population). Many of these locations are isolated from each other. The total population size of the species is generally considered stable, although the population in Point Pelee National Park may be declining, and three other populations (Point Anne Alvar, Salmon River Alvar ANSI, and Pelee Island) have 12 or fewer mature trees. Dwarf Hackberry has the ability to reproduce by seed without requiring genetic material from another individual, enabling small populations to persist for many years. However, some small populations in Ontario are not reproducing and the reasons for this are unknown. Given the few populations and small area that they can be found within in the province (~18.5 km²), it is important to maintain the existing populations.

Both Common Hoptree and Dwarf Hackberry can be found on substrates that are prone to periodic drought and flooding, including sandy, well-drained soils on dynamic shorelines and nearby open areas, inland dunes, and on areas with limestone substrates such as alvars. Dwarf Hackberry also occurs on the tops of sand and gravel hills (kame ridge tops) and in areas with sand and limestone substrates further east in southern Ontario.

The most significant threats to Common Hoptree and Dwarf Hackberry are loss of suitable habitat and direct plant damage, largely resulting from human activities. Changing landscape uses and disruption of natural coastal processes are resulting in increased rates of erosion and a loss of sand replenishment on the Point Pelee peninsula, leading to loss of suitable habitat for both species. Without mitigation measures to reduce erosion and

increase sand replenishment, up to 175 ha could be lost from Point Pelee National Park within 50 years. Similar processes are causing habitat damage at Rondeau Provincial Park, leading to loss of suitable habitat at that location for Common Hoptree. Removal of Common Hoptree also occurs due to its resemblance to Poison Ivy (*Rhus radicans*).

Threats to both species include:

- the human suppression of natural fires that can lead to habitat succession and the emergence of other vegetation resulting in isolated habitat patches, low-light levels, and increased competition for ground space and nutrients;
- altered coastal processes that disrupt the natural erosion and deposition of sand along shorelines;
- land development and shoreline redevelopment that results in plant and habitat removal;
- recreational use (trampling by pedestrians and off-road vehicles);
- the introduction of invasive species that increase competition; and,
- plant eating insects (both species) and snails (Dwarf Hackberry).

Additionally, the second largest population of Common Hoptree, located on Middle Island, is threatened by excessive guano deposition due to the hyper-abundance of Double-crested Cormorants (*Phalacrocorax auritus*). This can affect photosynthesis and result in direct plant damage and mortality. The Middle Island population of Common Hoptree is managed federally by Parks Canada since it occurs within Point Pelee National Park. Dwarf Hackberry may also be threatened by aggregate extraction activities in Hastings County (Point Anne Alvar) and indirectly through aggregate extraction activities adjacent to the Stirling Slope ANSI and Lambton County (Port Franks Road) populations.

There are currently some challenges with comparisons of how the Common Hoptree is faring through time, as different methods of collecting data have been used across the survey efforts. Both species would benefit from updated information on distribution and status of current and existing populations. With additional survey work, new populations could be discovered since a 2007-2008 survey in Lambton County found several thousand new Dwarf Hackberry trees. Similarly, two populations of Common Hoptree previously thought to have been extirpated have also been rediscovered and additional populations have been located.

The government's goal for the recovery of Common Hoptree is to maintain suitable habitat conditions and populations with a sustainable number of mature individuals in its seven core areas, and where feasible, increase the reproductive capacity of smaller populations.

The government's goal for the recovery of the Dwarf Hackberry is to maintain stable populations and improve habitat conditions at its six existing locations.

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 Common Hoptree and Dwarf Hackberry, the government will directly undertake the following actions:

- Continue to manage the habitat of Common Hoptree and Dwarf Hackberry in provincially protected areas with existing populations to maintain open and sandy habitat, and to minimize impacts caused by altered landscape and coastal processes, invasive species, and recreational pressures.
- Conduct surveys and monitoring for Common Hoptree and Dwarf Hackberry in provincially protected areas.
- Collaborate with federal partners to enable consistency and reduce duplication of effort between provincial and federal recovery efforts.
- Educate other agencies and authorities involved in planning and environmental assessment processes on the protection requirements under the ESA.
- Encourage the submission of Common Hoptree and Dwarf Hackberry data to the Ministry's central repository at the Natural Heritage Information Centre.
- Protect Common Hoptree and Dwarf Hackberry and their habitat through the ESA.
- Undertake communications and outreach to increase public awareness of species at risk in Ontario.
- Support conservation, agency, municipal and industry partners, and Aboriginal communities and organizations to undertake activities to protect and recover the Common Hoptree and Dwarf Hackberry. 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 Common Hoptree and Dwarf Hackberry. 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: Protection and Management

Objective: Protect Common Hoptree and Dwarf Hackberry trees and their habitat by maintaining suitable habitat conditions.

Actions:

1. **(HIGH)** Undertake actions to mitigate the impacts of altered coastal processes in and around the species’ habitats in certain areas, such as Colchester to Port Alma. These actions include:
 - discouraging further shoreline hardening and barriers that block the natural movement of sediment and prevent its transport to beaches where Common Hoptree and Dwarf Hackberry grow; and,
 - remove or modify shoreline protection structures, where possible.
2. Where appropriate, remove invasive plants that threaten and compete with Common Hoptree and Dwarf Hackberry populations, such as Norway Maple (*Acer platanoides*), White Mulberry (*Morus alba*), and White Sweet Clover (*Melilotus alba*).
3. Evaluate the potential impacts from aggregate extraction activities and promote ways to minimize impacts on Dwarf Hackberry, such as considering appropriate location and methods for the activities.
4. Decrease population and habitat fragmentation within core population areas, and where appropriate identify and protect significant sites through land securement in connection with existing initiatives and partners.

Focus Area: Inventory and Monitoring

Objective: Increase knowledge of the species’ populations, threats, and habitat quality.

Actions:

5. **(HIGH)** Develop and implement a standardized monitoring program, to document and assess:
 - distribution and population size;
 - health impacts, including pests and disease;
 - type, quality, and extent of suitable habitat;
 - significance of threats; and,
 - current site management at all identified sites.
6. Survey historical sites and other suitable habitats to identify any new populations.

Focus Area:	Research
Objective:	Gain a better understanding of the species' biology and ecology.
	Actions:
	<ol style="list-style-type: none"> 7. (HIGH) Research factors that may influence the species' level of recruitment to help improve natural regeneration of Common Hoptree and Dwarf Hackberry. Some factors include: <ul style="list-style-type: none"> ■ sex ratios; ■ seed production and dispersal; ■ habitat suitability; ■ survivorship and longevity; and, ■ germination. 8. Assess the significance of threats from snails and insects such as bark beetle and twig-boring beetle to Dwarf Hackberry and Common Hoptree and determine any underlying factors that influence the severity, frequency, and extent of this threat (e.g. climatic conditions).

Focus Area:	Awareness
Objective:	Increase awareness of the species' habitat needs and threats and promote stewardship activities.
	Actions:
	<ol style="list-style-type: none"> 9. Increase awareness of Common Hoptree and Dwarf Hackberry threats, locations, and identification among land managers, landowners, and Aboriginal communities and organizations to promote engagement in protection and recovery activities, such as promoting the maintenance of natural vegetation on shoreline properties and minimizing erosion.

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 Common Hoptree and Dwarf Hackberry.

ACKNOWLEDGEMENT

We would like to thank all those who participated in the development of the “Recovery Strategy for Common Hoptree (*Ptelea trifoliata*) in Ontario” and the “Recovery Strategy for Dwarf Hackberry (*Celtis tenuifolia*) 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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