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**Cover Photo** - Dave Watts



This document is a summary of the progress made from 2007 to 2020 for the 18 species listed above. Full-length chapters on each species are found in the 2021 Review of Progress Towards the Protection and Recovery of Ontario's Species at Risk, which is available on the Government of Ontario website at <a href="https://www.ontario.ca/page/review-progress-towards-protection-and-recovery-ontarios-species-risk">www.ontario.ca/page/review-progress-towards-protection-and-recovery-ontarios-species-risk</a>

# Introduction to the 2021 Review of Progress towards the Protection and Recovery of Ontario's Species at Risk

#### **Overview**

To fulfill a commitment of the Endangered Species Act, 2007 (ESA), the Government of Ontario publishes a Review of Progress Towards the Protection and Recovery of Ontario's Species at Risk. The Review shows how the Government of Ontario and its partners are helping to protect and recover species at risk in Ontario. In 2021, the Review included the following 18 species at risk:

- Aweme Borer Moth
- Bluehearts
- Dense Blazing Star
- Gattinger's Agalinis
- Golden Eagle
- Henslow's Sparrow
- Houghton's Goldenrod
- Juniper Sedge
- Mottled Duskywing
- Pink Milkwort

- Polar Bear
- Riverine Clubtail
- Showy Goldenrod (Great Lakes Plains population)
- Skinner's Agalinis
- Small White Lady's-slipper
- Spotted Gar
- White Prairie Gentian
- Wolverine

#### **Aweme Borer Moth**

#### Progress towards meeting the recovery goal:

The recovery goal in the Government Response Statement (GRS) for Aweme Borer Moth in Ontario is to "support the persistence of the species within Ontario by increasing our knowledge of the species and its habitat which will be better inform the application of protection".

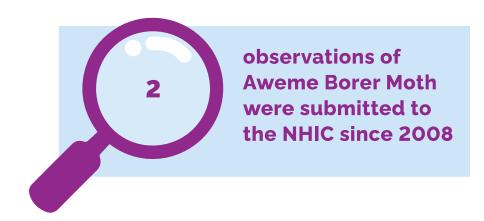
Progress has been made towards implementing all the government-led actions. Progress has been made towards implementing one of the government-supported recovery objectives and all of its associated actions.

#### **Examples of progress include:**

- Determining the identify of the Aweme Borer Moth larval host plant by coordinating survey and research efforts and sharing information with researchers and partners in Ontario, Manitoba, and Minnesota.
- Confirming the presence/absence of the species at locations with known occurrences through the collection and positive identification of an adult individual.
- Documenting the vegetation at survey sites to inform surveys for additional populations in areas with suitable habitat.

In alignment with the GRS, greater efforts are needed to maintain the habitat for Aweme Borer Moth at existing locations.





Four populations of Aweme Borer Moth have been documented in Ontario. Currently, three of these populations are extant, whereas the remaining population is considered historical. Two observations of Aweme Borer Moth have been newly-identified since 2008.

#### **Government-supported stewardship projects:**

Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct one project focused exclusively on Aweme Borer Moth.



1

project for Aweme Borer Moth exclusively

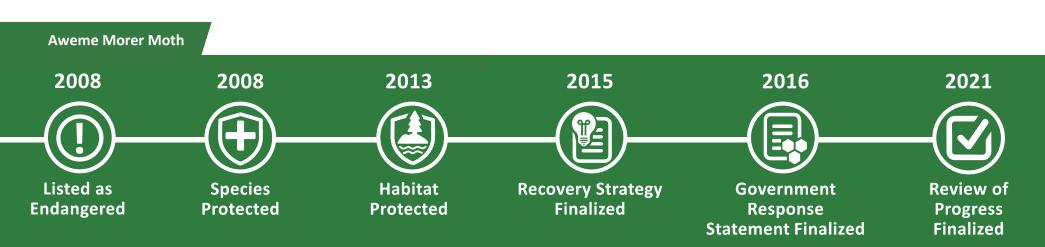
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# Supporting human activities while ensuring appropriate support for species recovery:

The Government of Ontario has issued one 'protection or recovery' permit under clause 17(2)(b) of the Endangered Species Act, 2007 (ESA) for this species

Three activities have been registered for the species. The activities were registered under 'Notice of drainage works' (section 23.9) and "Threats to health and safety, not imminent' (section 23.18) under Ontario Regulation 242/08 of the ESA





#### **Bluehearts**

#### Progress towards meeting the recovery goal:

The recovery goal in the Government Response Statement (GRS) for Bluehearts in Ontario is to "maintain the current distribution of Bluehearts in Ontario and support natural increases in the abundance of Bluehearts, where feasible. The Government supports investigating the feasibility of augmenting existing populations." Progress has been made towards implementing all of the government-led actions. Progress has been made towards implementing two of the Government-supported recovery objectives and two of the associated actions.

#### **Example of progress include:**

- Monitoring of Bluehearts at Pinery Provincial Park and management of its habitat through methods such as prescribed burning and deer population control.
- Implementation of Ontario's Invasive Species Strategic Plan, to reduce the impacts of invasive species, such as European Common Reed, that threaten Bluehearts.
- Research to improve knowledge of Bluehearts pollinator biology.

In alignment with the GRS, more work is required to:

- Collaborate with partners to monitor existing and historical Bluehearts locations outside of Pinery Provincial Park.
- Undertake habitat management actions to address habitat degradation posing a direct threat to extant Bluehearts populations.
- Research the species' life history characteristics and habitat requirements to inform recovery actions, and investigate the feasibility of augmenting existing populations.



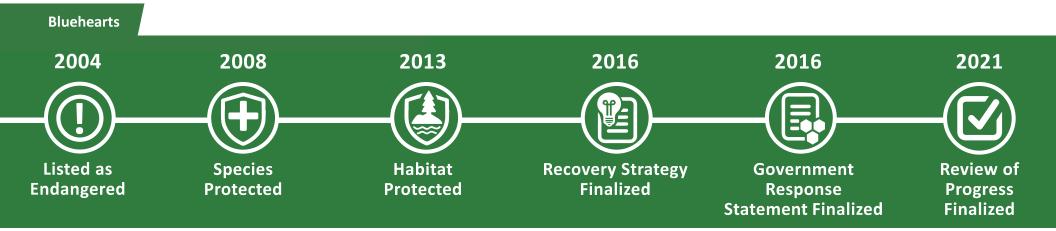
Observations of Bluehearts are limited to within 500 metres of the Lake Huron shoreline between Kettle Point and Pinery Provincial Park, with a distribution of 12 square kilometres based on recent observations, and an additional eight square kilometres based on historical observations.

The Natural Heritage Information Centre (NHIC) has received nearly 300 observations of the species based on observations made between 1910 and 2020.

Since 2008, the species has been observed in multiple locations where it was not previously known to occur. Based on up-to-date information, the species' extant distribution is estimated to encompass an area six square kilometres larger than was known since the ESA came into effect.

# Supporting human activities while ensuring appropriate support for species recovery:

One activity has been registered for the species under 'Drainage works' (section 23.9) under Ontario Regulation 242/08 of the ESA.



Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct four projects (by providing \$168,997 in funding) that have supported the protection and recovery of multiple species at risk, including Bluehearts. The government's support helped its stewardship partners to involve 276 individuals who volunteered 2,644 hours of their time towards protection and recovery activities for species at risk, including Bluehearts. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$285,009.

Stewardship partners reported that through their actions 15 hectares of habitat were enhanced for Bluehearts and other species at risk that inhabit the same ecosystem. Stewardship partners reported providing outreach on multiple species at risk, including Bluehearts, to 34,559 individuals.



# Species at Risk Stewardship Program **By The Numbers**



projects included Bluehearts



for multi-species projects that included Bluehearts



in additional funding and in-kind support



**276** volunteers



**2,644** volunteer hours



**34,559** people received outreach



hectares of habitat enhanced

#### **Dense Blazing Star**

#### Progress towards meeting the recovery goal:

The recovery goal in the Government Response Statement (GRS) for Dense Blazing Star in Ontario is to "maintain the distribution and abundance of Dense Blazing Star in Ontario and support natural increases in the abundance of Dense Blazing Star at existing viable locations. The government supports investigating the feasibility of augmenting existing populations deemed to be non-viable in the absence of additional recovery efforts."

Progress has been made towards implementing all of the government-led actions. Progress has been made towards implementing all of the government-supported recovery objectives.

#### **Example of progress include:**

- Management of Dense Blazing Star habitat through methods such as prescribed burning and deer population control.
- Implementation of Ontario's Invasive Species Strategic Plan, to reduce the impacts of invasive species, such as European Common Reed and Purple Loosestrife, that threaten Dense Blazing Star.
- Workshops and educational signage to promote awareness of Dense Blazing Star and its habitat.

In alignment with the GRS, continued effort is required to implement a standardized monitoring protocol at existing populations of Dense Blazing Star. Research and monitoring is required to assess the viability of populations with low numbers of individual plants and to determine whether any of the populations of unknown origin consist of plants native to Ontario.



Dense Blazing Star is limited to southwestern Ontario, in the regions between Lake Erie, Lake St. Clair, and Lake Huron, with a distribution of 152 square kilometres based on recent observations, and an additional 153 square kilometres based on historical observations. The Natural Heritage Information Centre (NHIC) has received nearly 1,760 observations of the species based on observations made between 1884 and 2020.

Since 2008m the species has been observed in multiple locations where it was not previously known to occur. Based on up-to-date information, the species' extant distribution is estimated to encompass an area 82 square kilometres larger than was known since the ESA came into effect.

# Supporting human activities while ensuring appropriate support for species recovery:

The Government of Ontario has issued nine permits for the species: seven 'protection or recovery' permits were issued under clause 17(2) (b), one 'overall benefit' permit was issued under clause 17(2)(c), and one 'social and economic benefit' was issued under clause 17(2)(d) of the ESA.

Ten agreements were entered into for Dense Blazing Star. These agreements were enabled through Ontario Regulation 242/08 (prior to the July 1, 2013 amendment).

Sixty-seven activities have been registered for the species. The activities were registered under 'Notice of drainage works' (section 23.9), 'Species protection or recovery' (section 23.17) and 'Threats to human health or safety, non-imminent' (section 23.18) under Ontario Regulation 242/08 of the ESA.

**Statement Finalized** 

**Finalized** 



Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct 41 projects (by providing \$1,965,607 in funding) that have supported the protection and recovery of multiple species at risk, including Dense Blazing Star. The government's support helped its stewardship partners to involve 1,881 individuals who volunteered 18,719 hours of their time towards protection and recovery activities for species at risk, including Dense Blazing Star. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$3,465,160.

Stewardship partners reported that through their actions 483 hectares of habitat were enhanced for Dense Blazing Star and other species at risk that inhabit the same ecosystem. Stewardship partners reported providing outreach on multiple species at risk, including Dense Blazing Star, to 1,157,681 individuals.

# observations of Dense Blazing Star were submitted to the NHIC since 2004

### Species at Risk Stewardship Program By The Numbers



projects included Dense Blazing Star



\$1,965,607

for multi-species projects that included Dense Blazing Star



\$3,465,160

in additional funding and in-kind support



1,881

volunteers



18,719

volunteer hours



1,157,681

people received



483

hectares of habitat enhanced

# Gattinger's Agalinis & Houghton's Goldenrod

#### Progress towards meeting the recovery goal:

The recovery goal in the Government Response Statement (GRS) for Gattinger's Agalinis and Houghton's Goldenrod in Ontario is to "maintain self-sustaining populations across their Ontario distribution by reducing threats to the species and their habitats to allow for natural increases."

Progress has been made towards implementing several of the government-led actions. Progress has been made towards implementing two of the government-supported recovery objectives and two of the associated actions.

#### **Example of progress include:**

- Completing a prescribed burn in Gattinger's Agalinis habitat,
- Constructing a boardwalk to prevent pedestrian and vehicular harm to Gattinger's Agalinis, and
- Controlling invasive Phragmites (Phragmites australis ssp. australis) at or adjacent to Gattinger's Agalinis and Houghton's Goldenrod populations.

In alignment with the GRS recommendations more work is required to better understand the population dynamics and biology of Gattinger's Agalinis and Houghton's Goldenrod.



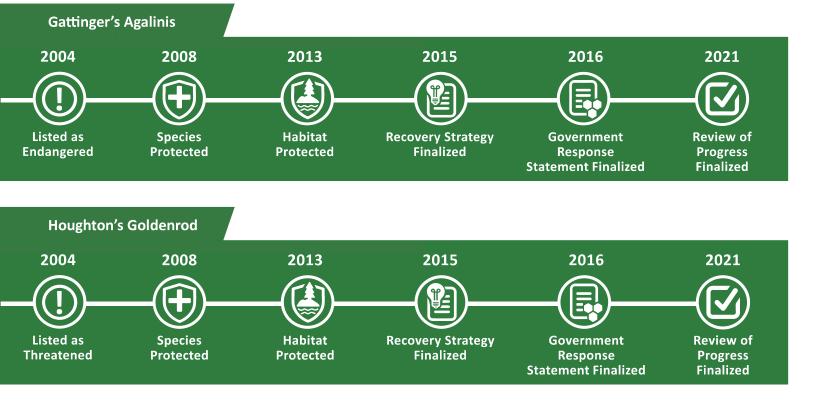


Twenty-four populations of Gattinger's Agalinis and thirty-eight populations of Houghton's Goldenrod have been documented on Ontario. Currently, twenty populations of the former and thirty-five of the latter are considered to be extant, whereas the rest are considered historical. Since 2008, the status of two populations of Gattinger's Agalinis changed from extant to historical based on the date that it was last observed. Two populations of Gattinger's Agalinis have been newly identified since 2008.

# Supporting human activities while ensuring appropriate support for species recovery:

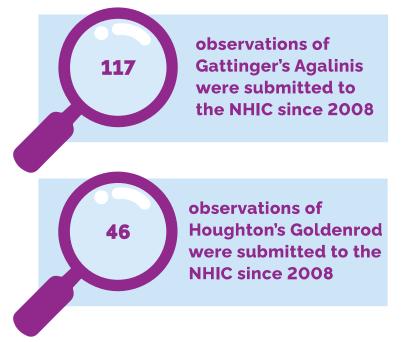
Twenty-two activities have been registered for the two species. The activities were registered under "Threats to health and safety, not imminent' (section 23.18) and "Transition - development ongoing when species first listed" (section 23.13) under Ontario Regulation 242/08 of the ESA.





Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to undertake eight projects (by providing \$387,538 in funding) that have supported the protection and recovery of multiple species at risk, including Gattinger's Agalinis and Houghton's Goldenrod. The government's support helped its stewardship partners to involve 324 individuals who volunteered 3,446 hours of their time towards protection and recovery activities for species at risk, including Gattinger's Agalinis and Houghton's Goldenrod. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$724,789.

Stewardship partners reported that through their actions approximately 57 hectares of habitat were enhanced for Gattinger's Agalinis and Houghton's Goldenrod and other species at risk that inhabit the same ecosystems. Stewardship partners reported providing outreach on multiple species at risk, including Gattinger's Agalinis and Houghton's Goldenrod, to 340,548 individuals.



# Species at Risk Stewardship Program **By The Numbers**









for multi-species projects that included Gattinger's Agalinis and Houghton's Goldenrod



in additional funding and in-kind support



volunteers



**3,446** volunteer hours



340,548

people received outreach



57

hectares of habitat enhanced

#### **Golden Eagle**

#### Progress towards meeting the recovery goal:

The recovery goal in the Government Response Statement (GRS) in Ontario is to maintain existing populations by allowing for the natural increase of successfully breeding Golden Eagles in Ontario. Initial progress has been made towards implementing the majority of the government-led actions.

Initial progress has been made towards implementing all of the government-supported recovery objectives and several of the associated actions.

#### **Example of progress include:**

- Surveys for Golden Eagles and their nests.
- Education and outreach programs that raise awareness of Golden Eagle.
- Submission of Golden Eagle observations to the Natural Heritage Information Centre.

In alignment with the GRS, further work is needed to develop standardized methodologies to survey and monitor Golden Eagle, determine this species' sensitivity to threats, and minimize incidental trapping. More education and outreach specific to Golden Eagle is also needed to support the protection and recovery of this species.



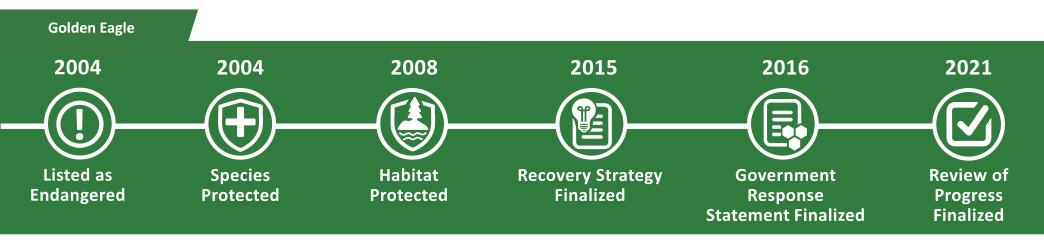
Eleven populations of Golden Eagle have been documented near Fort Severn and Peaqanuck in the Far North of Ontario. Currently, six of these populations are extant, whereas the remaining five are considered historical. One population of Golden Eagle has been newlyidentified since 2008.

# Supporting human activities while ensuring appropriate support for species recovery:

The Government of Ontario has issued 15 permits for this species, all are 'protection or recovery' permits issued under clause 17(2)(b) of the ESA.

Twenty-four activities have been registered for the species. One activity was registered under 'Species protection, recovery activities' (section 23.17), and 23 activities were registered under 'Threats to health and safety, not imminent' (section 23.18) under Ontario Regulation 242/08 of the ESA.





Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct nine projects (by providing \$354,981 in funding) that have supported the protection and recovery of multiple species at risk, including Golden Eagle.

The government's support helped its stewardship partners to involve 111 individuals who volunteered 495 hours of their time towards protection and recovery activities for species at risk, including Golden Eagle. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$59,367.

Stewardship partners reported providing outreach on multiple species at risk, including Golden Eagle, to 280 individuals.

# Species at Risk Stewardship Program **By The Numbers**



9

projects included Golden Eagle



\$354,981

for multi-species projects that included Golden Eagle



\$59,367

in additional funding and in-kind support



submitted to the NHIC since 2008



**111** volunteers



volunteer hours



280

people received outreach

#### Henslow's Sparrow

#### Progress towards meeting the recovery goal:

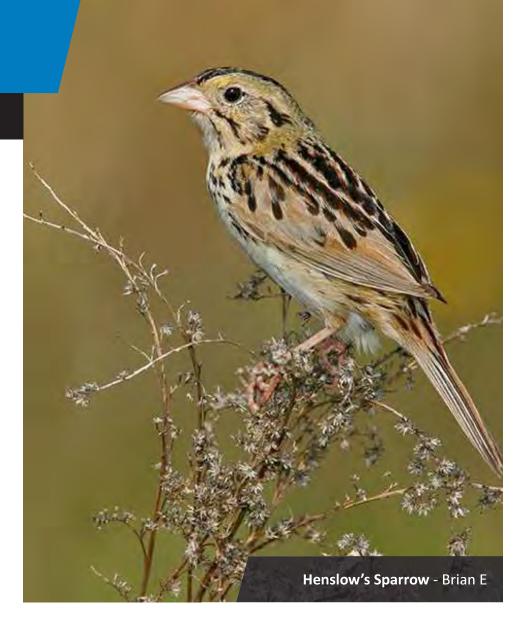
The recovery goal in the government response statement (GRS) for Henslow's Sparrow in Ontario is to "encourage natural increases in the number of breeding pairs and support the expansion of the species to suitable breeding habitat in the historical distribution of Ontario, where feasible".

Progress has been made towards implementing all of the government-led actions and all of the government-supported recovery objectives and several of the associated actions.

#### **Example of progress include:**

- Conducting presence/absence surveys for Henslow's Sparrow at areas with suitable habitat across the historical distribution over multiple years; and,
- Supporting the securement of suitable habitat for Henslow's Sparrow through existing land securement and stewardship programs.

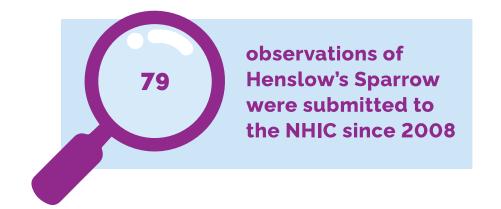
In alignment with the GRS, greater efforts are needed to coordinate efforts and share information with other jurisdiction, including the federal government and partners in the United States, to monitor current populations, understand potential range contraction across the continent and increase knowledge of threats faced by the species. Greater efforts are also needed to develop and implement multi-year population monitoring programs for Henslow's Sparrow at recent and newly-reported breeding locations in Ontario.



19

Henslow's Sparrow was historically widely distributed across southern Ontario, with an estimated range of approximately 3,400 square kilometres based on recent observations.

The Natural Heritage Information Centre (NHIC) was received over 800 records of the species based on observations made between 1898 and 2019, and 469 of these records contain evidence of nesting activity.

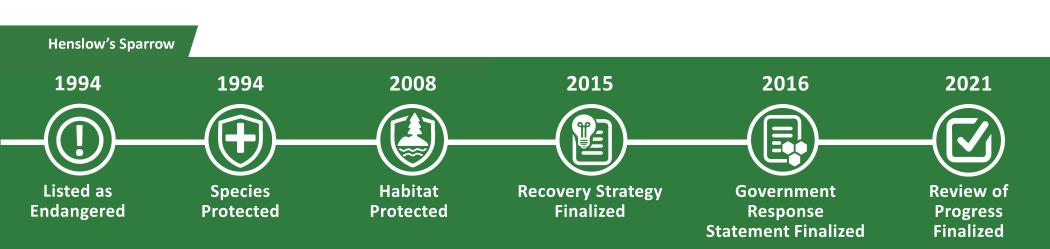


# Supporting human activities while ensuring appropriate support for species recovery:

The Government of Ontario has issued 13 'protection or recovery' permits under clause 17(s)(b) of the Endangered Species Act, 2007 (ESA) for this species.

Thirty-nine activities have been registered for the species. The activities were registered under 'Notice of drainage works' (section 23.9), 'Ecosystem protection' (section 23.11), 'Threats to health and safety, not imminent' (section 23.18), and 'Wind facilities' (section 23.20) under Ontario Regulation 242/08 of the ESA.





Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct 46 projects (by providing \$3,185,675 in funding) that have supported that protection and recovery of Henslow's Sparrow. One project focused exclusively on Henslow's Sparrow, while the other 45 projects focused on multiple species at risk, including Henslow's Sparrow.

The government's support helped its stewardship partners to involve 1,466 individuals who volunteered 42,005 hours of their time towards protection and recovery activities for species at risk, including Henslow's Sparrow. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$9,589,645.

Stewardship partners reported that through their actions 2,947 hectares of habitat were enhanced for Henslow's Sparrow and other species at risk that inhabit the same ecosystem.

Stewardship partners reported providing outreach on multiple species at risk, including Henslow's Sparrow, to 109,867 individuals.



### Species at Risk Stewardship Program By The Numbers



project included Henslow's Sparrow



project for Henslow's Sparrow exclusively



for projects that included Henslow's Sparrow



in additional funding and in-kind support



**1,466** volunteers



volunteer hours



109,867
people received outreach



2,947
hectares of habitat enhanced

#### **Juniper Sedge**

#### Progress towards meeting the recovery goal:

The recovery goal in the government response statement (GRS) for Juniper Sedge in Ontario is to "maintain the current population levels across the species' distribution in Ontario and support natural increases to improve long-term persistence".

Progress has been made towards implementing all of the government-led actions.

Progress has been made towards implementing all of the government-supported recovery objectives and a majority of the associated actions.

#### **Example of progress include:**

- Surveys for Juniper Sedge in suitable alvar habitat.
- Monitoring of existing Juniper Sedge populations.
- Public education and outreach on Juniper Sedge and threats to protecting and recovering this species.

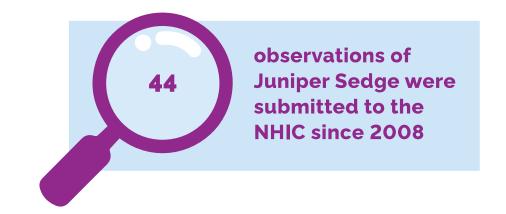
In alignment with the GRS, more work is needed to manage and secure Juniper Sedge habitat, identify Juniper Sedge life history characteristics and responses to management actions, and study the feasibility and necessity of conserving Juniper Sedge seeds. Some work is also needed to standardize Juniper Sedge surveys and conduct surveys in upland oak forest habitat.

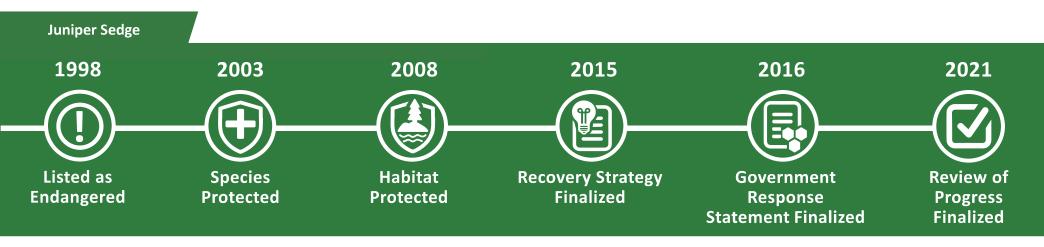


Eighty-six records of Juniper Sedge were submitted to the Natural Heritage Information Centre (NHIC) between 1989 to 2018, covering an 11 square kilometre area, mainly from two locations in eastern and southwestern Ontario. More recent records (post-2008) have been made within a 3 square kilometre area across two locations: the Salmon River Area of Natural and Scientific Interest (ANSI) of the Napanee Plain in eastern Ontario and Selkirk Provincial Park in southwestern Ontario. New records of the species have recently been found in two square kilometres within this area, and records from the remaining area reconfirmed, likely the result of increased search effort and knowledge of the species.

# Supporting human activities while ensuring appropriate support for species recovery:

No permits, agreements, or registrations have been issued for Juniper Sedge.





Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct four projects that have supported the protection and recovery of Juniper Sedge (by providing \$85,619 in funding). One project focused exclusively on Juniper Sedge, while the other three projects focused on multiple species at risk, including Juniper Sedge.

The government's support helped its stewardship partners to involve 39 individuals who volunteered 415 hours of their time towards protection and recovery activities for species at risk, including Juniper Sedge. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$96,674.

Stewardship partners reported providing outreach on multiple species at risk, including Juniper Sedge, to 2,182 individuals.

Through the Species at Risk Research Fund for Ontario, the Government of Ontario supported one partner to conduct research on detection methods for cryptic species at risk plants.



# Species at Risk Stewardship Program **By The Numbers**



projects included Juniper Sedge



project for Juniper Sedge exclusively



for projects that included Juniper Sedge



in additional funding and in-kind support



volunteers



volunteer hours



2,182
people received outreach

#### **Mottled Duskywing**

#### Progress towards meeting the recovery goal:

The recovery goal in the government response statement (GRS) for Mottled Duskywing in Ontario is to "allow for the long-term persistence of the species across its range in Ontario by reducing existing threats to metapopulations and the species' habitat. The government supports investigating the feasibility of augmenting existing populations and of reintroducing the species to historic sites with suitable habitat."

Progress has been made towards implementing all of the government-led actions. Progress has been made towards implementing all of the government-supported recovery objectives and all of the associated actions.

#### **Example of progress include:**

- Management of Mottled Duskywing habitat through methods such as prescribed burning, deer population control, and tree canopy thinning;
- Population monitoring and presence/absence surveys at extant and historical metapopulation sites;
- Research to address knowledge gaps in areas such as Mottled Duskywing dispersal ability and larval density dependence on host plants; and
- Collaboration with conservation organizations to plan efforts to reintroduce Mottled Duskywing to Pinery Provincial Park.

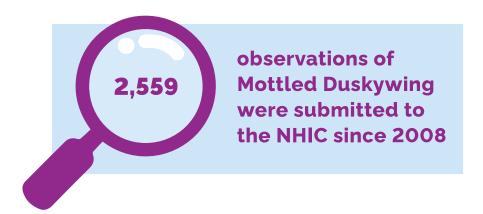


In alignment with the GRS, continued effort is required to estimate population size and map host plant extent of occurrence for all metapopulations. Further research is needed to investigate the habitat requirements of Mottled Duskywing and investigate cues used by Mottled Duskywing larvae to break diapause (a state of inactivity in response to environmental stressors such as winter weather).

Twenty-nine populations of Mottled Duskywing have been documented in Ontario. Currently, 13 of these populations are extant and 14 are considered historical. Two populations are considered extirpated.

The Natural Heritage Information Centre (NHIC) has received over 2,550 records of the species based on observations made between 2008 and 2020.

Since 2008, the species has been observed in four locations where it was not previously known to occur, while one population changed from historical to extant as its existence was confirmed through monitoring efforts.



### Supporting human activities while ensuring appropriate support for species recovery:

The Government of Ontario has issued two permits for this species, both of which were 'protection or recovery' permits issued under clause 17(2)(b) of the ESA for this species.

Six activities have been registered for the species. The activities were registered under 'Ecosystem protection' (section 23.11), 'Pits and quarries' (section 23.14) and 'Species protection or recovery activities' (section 23.17) under Ontario Regulation 242/08 of the ESA.







Listed as Endangered 2014

Species Protected

2014

Habitat Protected 2015

Recovery Strategy Finalized 2016

Government
Response
Statement Finalized

2021



Review of Progress Finalized

Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct 17 projects (by providing \$878,997 in funding) that have supported the protection and recovery of Mottled Duskywing. Three projects (\$81,451) focused exclusively on Mottled Duskywing, while the other 14 projects (\$797,546) focused on multiple species at risk, including Mottled Duskywing.

The government's support helped its stewardship partner to involve 890 individuals who volunteered 12,850 hours of their time towards protection and recovery activities for species at risk, including Mottled Duskywing. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$1,286,382.

Stewardship partners reported that through their actions 2,380 hectares of habitat were enhanced for Mottled Duskywing and other species at risk that inhabit the same ecosystem.

Stewardship partners reported providing outreach on multiple species at risk, including Mottled Duskywing, to 13,901 individuals.



# Species at Risk Stewardship Program **By The Numbers**



projects included Mottled Duskywing



projects for Mottled Duskywing exclusively



for projects that included Mottled Duskywing



\$81,451

for Mottled Duskywing exclusively



\$1,286,382

in additional funding and in-kind support



890

volunteers



**12,850** volunteer hours

13,901

people received outreach



2,380

hectares of habitat enhanced

Pink Milkwort, Showy Goldenrod (Great Lakes Plains Population), Skinner's Agalinis, & White Prairie Gentian

#### Progress towards meeting the recovery goal:

The recovery goal in the Government Response Statement (GRS) for Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis, and White Prairie Gentian in Ontario is to "maintain current population levels of the species in Ontario, to maintain the presence of the species at locations where they occur, and where feasible, enable natural increases in abundance of the species by reducing threats to the species and their habitat. The government supports investigating the feasibility of augmenting the existing populations of White Prairie Gentian and Pink Milkwort at appropriate locations".

Progress has been made towards implementing all government-led actions. Progress has been made towards implementing all of the government-supported recovery objectives and a majority of the associated actions.

#### **Example of progress include:**

- Education and outreach on the importance of grasslands for species at risk, including Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis, and White Prairie Gentian.
- Grassland restoration and management activities that included the removal of invasive species.
- The development of prescribed burn guidelines for Bkejwanong (Walpole Island First Nation).





In alignment with the GRS, more work is needed to implement a standardized long-term monitoring program, conduct surveys at all historic locations, secure additional habitat and conduct further research on these species.

Pink Milkwort, Showy Goldenrod (Grealt Lakes Plains population), Skinner's Agalinis, and White Prairie Gentian occur in a small number of geographically-isolated populations in southwestern Ontario prairies, and in some cases, savannas and alvars.

#### Pink Milkwort occurrence summary:

- This species has a distribution of three square kilometres based on recent observations, and an additional eight square kilmetres of historical habitat.
- The Natural Heritage Information Centre (NHIC) has received 30 records of the species based on observations made between 1823 and 2017.
- Since 2008, the species has been re-confirmed in three locations. Pink Milkwort has not been observed in any new locations.

### Showy Goldenrod (Great Lakes Plains population) occurrence summary:

- This species has a distribution of 12 square kilometres based on recent observations, and an additional 20 square kilometres of historical habitat.
- NHIC has received 26 records of the species based on observations made between 1910 and 2008.
- Since 2008, the species has been re-confirmed in eight locations.
   Showy Goldenrod (Great Lakes Plains population) has not been observed in any new locations.

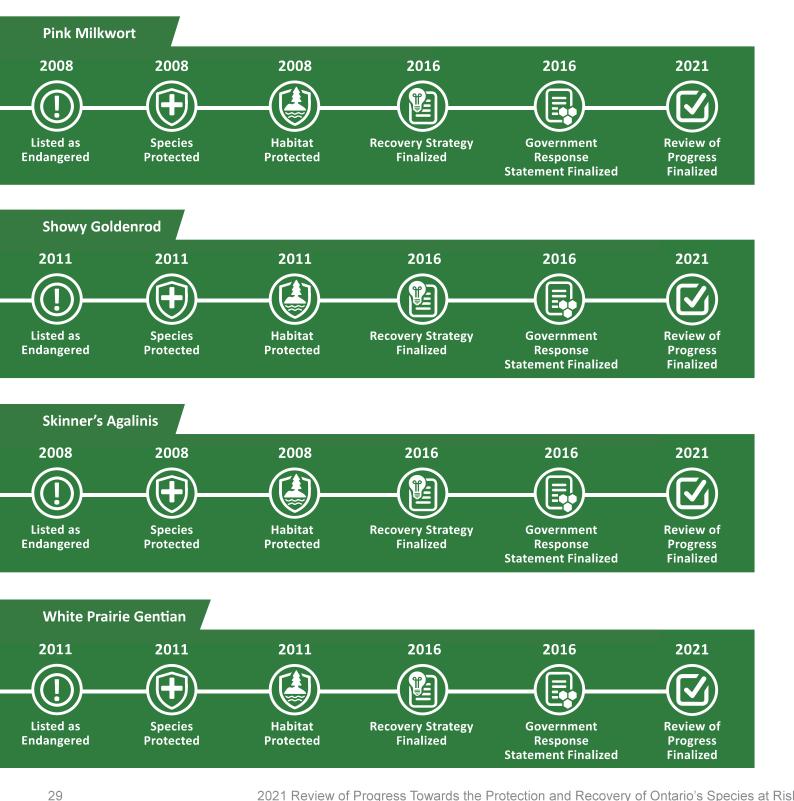
#### Skinner's Agalinis occurrence summary:

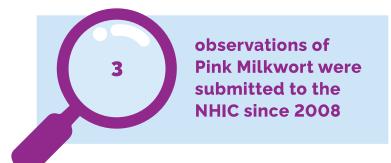
- This species has a distribution of two square kilometres based on recent observations, and an additional seven square kilometres of historical habitat.
- NHIC has received 20 records of the species based on observations made between 1958 and 2009.
- Since 2008, the species has been re-confirmed in two locations.
   Skinner's Agalinis has not been observed in any new locations.

#### White Prairie Gentian occurrence summary:

- This species has a distribution of 24 square kilometres based on recent observations, and an additional two square kilometres of historical habitat.
- NHIC has received 14 records of the species based on observations made between 1840 and 2019.
- Since 2008, the species has been observed in one location where it was not previously known to occur. Based on up-todate information, the species' extant distribution is estimated to encompass an area one square kilometre larger than was known since the ESA came into effect. The species has also been reconfirmed in two locations.



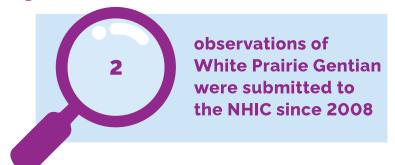






observations of **Showy Goldenrod** (Great Lakes Plains population) were submitted to the **NHIC since 2008** 

observations of **Skinner's Agalinis** were submitted to the NHIC since 2008



#### Species at Risk Stewardship Program **By The Numbers**





projects included Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis and White Prairie Gentian

for multi-species projects that included Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis and White Prairie Gentian

\$645,909



\$1,387,713

in additional funding and in-kind support



volunteers



5,118

volunteer hours



5,829

people received outreach



89

hectares of habitat enhanced

Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct 18 projects (by providing \$645,909

in funding) that have supported the protection and recovery of multiple species at risk, including Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis, and White Prairie Gentian.

The government's support helped its stewardship partner to involve 225 individuals who volunteered 5,118 hours of their time towards protection and recovery activities for species at risk, including Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis, and White Prairie Gentian. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$1,387,713.

Stewardship partners reported that through their actions 89 hectares of habitat were enhanced for Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis, and White Prairie Gentian and other species at risk that inhabit the same ecosystems.

Stewardship partners reported providing outreach on multiple species at risk, including Pink Milkwort, Showy Goldenrod (Great Lakes Plains population), Skinner's Agalinis, and White Prairie Gentian, to 5,829 individuals.

Through the Species at Risk Research Fund for Ontario, the Government of Ontario supported one research partner to develop a method to detect plant species at risk in Ontario.

### Supporting human activities while ensuring appropriate support for species recovery:

One agreement was entered into for Showy Goldenrod (Great Lakes Plains population). This agreement was enabled through Ontario Regulation 242/08 (prior to the July 1, 2013 amendment).

10 activities have been registered for these species. The activities were registered under 'Drainage works' (section 23.9), 'Species protection, recovery activities' (section 23.17), and 'Threats to health and safety, not imminent' (section 23.18), under Ontario Regulation 242/08 of the ESA.





#### **Polar Bear**

#### Progress towards meeting the recovery goal:

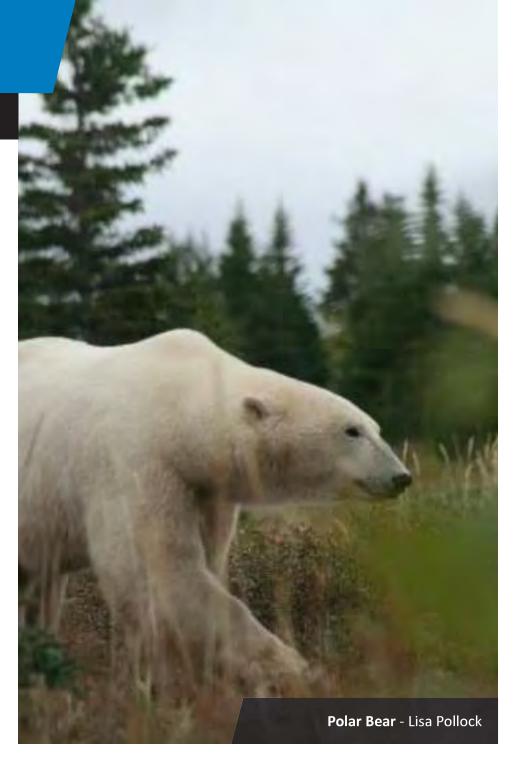
The recovery goal in the Government Response Statement (GRS) for Polar Bear in Ontario is to "extend the length of time that the species persists in Ontario to the extent possible, and to collaborate with the other jurisdictions, including Indigenous communities and organizations, to increase the likelihood of the species' persistence within Canada".

Progress has been made towards implementing all of the government-led and government-supported objectives and a majority of the associated actions.

#### **Example of progress include:**

- Efforts undertaken in partnership with First Nation communities in the Far North to develop Community Based Land Use Plans and a First Nations led Polar Bear monitoring program.
- Extensive monitoring efforts undertaken in partnership with educational institutions and other jurisdictions to improve our understanding of the status, distribution, and biology of Polar Bears.

In alignment with the GRS, it is recommended that additional efforts be made to develop, implement, and update, as needed, best management practices to reduce the potential impacts of development activities, such as mineral exploration, on Polar Bears and their habitat.



Polar Bear is widely distributed across the northern border of Ontario, with an estimated range of approximately 16,500 square kilometres based on recent observations.

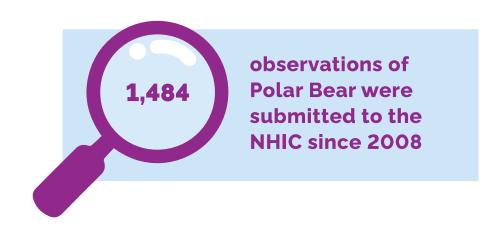
The Natural Heritage Information Centre (NHIC) has received over 2,400 records of the species based on observations made between 1963 and 2016, the majority of which are from targeted monitoring and surveying efforts.

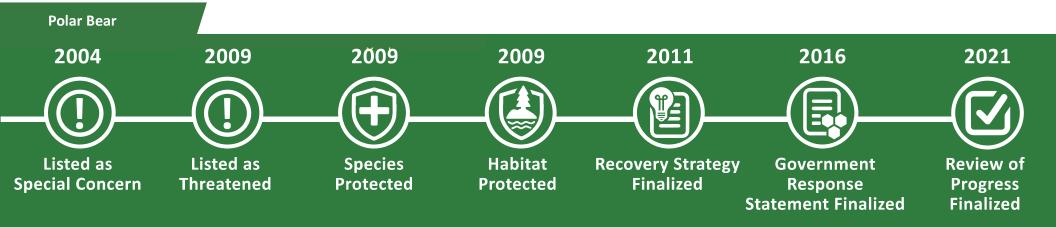
Since 2008, the species has been observed in locations where they were not previously known to occur and at locations previously thought to be historical. Based on up-to-date information, the species' extant distribution is estimated to encompass an area 3,100 square kilometres larger than was known in 2008.

# Supporting human activities while ensuring appropriate support for species recovery:

Supporting partners through authorizations and their associated conditions is an important government-led action. To date, no permits have been issued for Polar Bear.

No activities that pertain to Polar Bear have been registered for the purposes of Ontario Regulation 242/08 under the ESA since the registry was established in 2013.





Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct four projects (by providing \$280,412 in funding) designed to contribute to the protection and recovery of Polar Bear. One of these projects focused exclusively on the species, while the other three projects focused on multiple species at risk, including Polar Bear.

The government's support helped its stewardship partners to involve 39 individuals who volunteered 940 hours of their time towards protection and recovery activities for species at risk, including Polar Bear. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is nearly \$50,000.

Stewardship partners reported providing outreach on multiple species at risk, including Polar Bear, to 134,695 individuals.

Through the Species at Risk Research Fund for Ontario, the government also provided funding to four projects to conduct research on knowledge gaps identified in the GRS, including feeding ecology, denning habitat use, and body condition.



# Species at Risk Stewardship Program **By The Numbers**



projects included Polar Bear



project for Polar Bear exclusively



for projects that included Polar Bear



in additional funding and in-kind support



volunteers



volunteer hours



**134,695**people received outreach

#### **Riverine Clubtail**

#### Progress towards meeting the recovery goal:

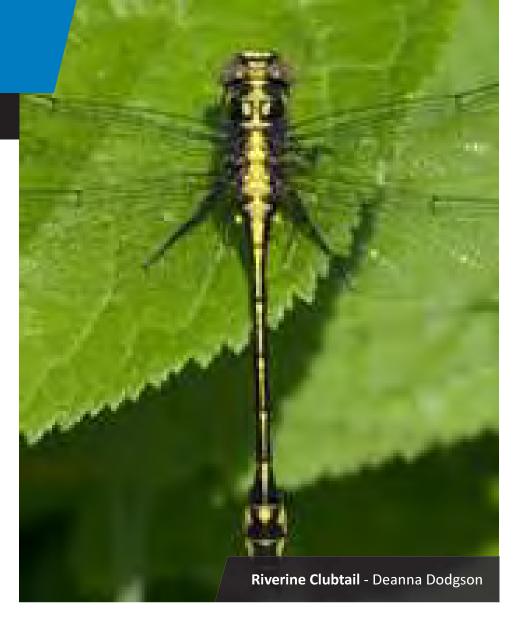
The recovery goal in the government response statement (GRS) for Riverine Clubtail in Ontario is to "maintain viable, self-sustaining populations across the existing range of the species in Ontario".

Progress has been made towards implementing the majority of the government-led actions. Progress has been made towards implementing all of the government-supported recovery objectives and several of the associated actions.

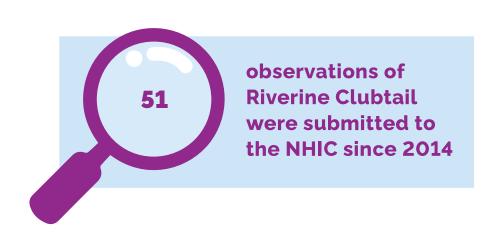
#### **Example of progress include:**

- Conducting presence/absence surveys for Riverine Clubtail in areas of suitable habitat where observations of the species have not been made.
- Identifying the structure of the vegetation community present at existing locations.
- Maintaining and enhancing habitat for Riverine Clubtail at existing locations in collaboration with local partners/ municipalities and conservation authorities.

In alignment with the GRS, greater efforts are needed to integrate searches for Riverine Clubtail into ongoing benthic inventory programs in streams across Ontario and undertake research to determine the species' life processes and habitat meeds at each of its developmental stages.



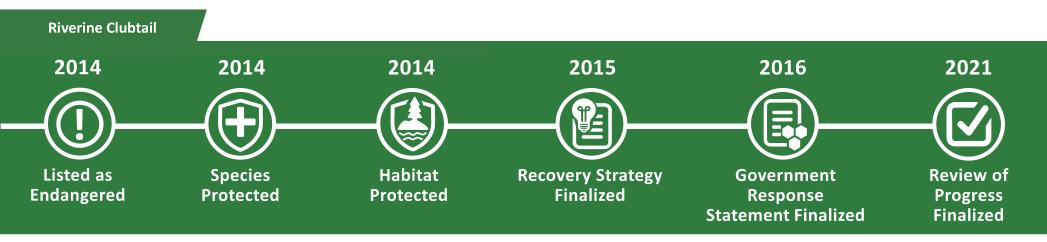
Five populations of Riverine Clubtail have been documented in Ontario. Currently, all five of these populations are extant. Three populations of Riverine Clubtail have been newly-identified since 2008 (including one in 2020), while two populations were reconfirmed.



### Supporting human activities while ensuring appropriate support for species recovery:

Two activities have been registered for the species. The activities were registered under 'Threats to health and safety, not imminent' (section 23.18) under Ontario Regulation 242/08 of the ESA.





Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct three projects (\$171,874 in funding) that have supported the protection and recovery of Riverine Clubtail. One project focused exclusively on Riverine Clubtail, while the other 2 projects focused on multiple species at risk, including Riverine Clubtail.

The government's support helped its stewardship partners to involve 1,089 individuals who volunteered 3,493 hours of their time toward protection and recovery activities for species at risk, including Riverine Clubtail. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$245,055.

Stewardship partners reported that through their actions 63 hectares of habitat were enhanced for Riverine Clubtail and other species at risk that inhabit the same ecosystem.

Stewardship partners reported providing outreach on multiple species at risk, including Riverine Clubtail, to 7,000 individuals.



# Species at Risk Stewardship Program **By The Numbers**



projects included Riverine Clubtail



project for Riverine Clubtail exclusively



for projects that included Riverine Clubtail



in additional funding and in-kind support



volunteers



volunteer hours

3,493



**7,000** people received outreach



hectares of habitat enhanced

#### **Small White Lady's-slipper**

#### Progress towards meeting the recovery goal:

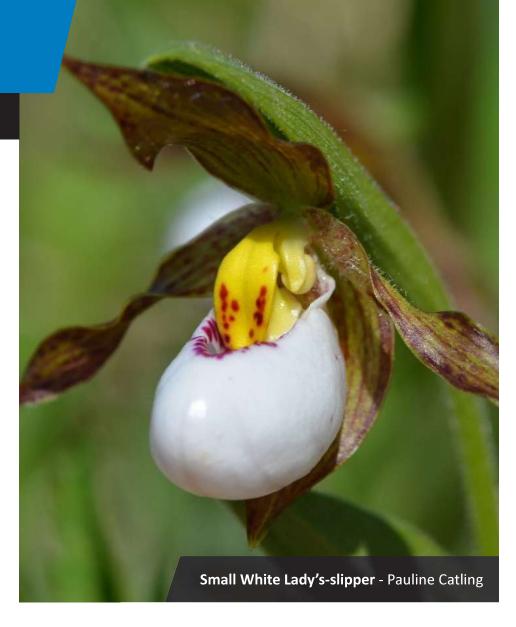
The recovery goal in the government response statement (GRS) for Small White Lady's-slipper in Ontario is to "maintain the distribution of Small White Lady's-slipper in Ontario and support natural increases in abundance at existing locations".

Progress has been made towards implementing all the government-led actions. Progress has been made towards implementing all of the government-supported recovery objectives and a majority of the associated actions.

#### **Example of progress include:**

- Development of a standardized survey protocol for Small White Lady's-slipper.
- Research and guidelines to better inform prescribed burning of prairie habitats, including guidelines specific to Bkejwanong (Walpole Island First Nations).
- Education and outreach on species at risk that are found in prairie habitats, including the Small White Lady's-slipper.

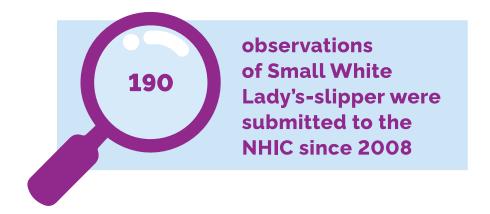
In alignment with the GRS, more work is required to conduct studies to better understand the ecology, threats and habitat requirements of Small White Lady's-slipper, determine the effectiveness and risks of habitat management practices on this species, and implement and evaluate existing habitat management plans through collaborative efforts between Bkejwanong, land owners and managers, and local organizations. Work is also needed to increase awareness of the significance, uniqueness and vulnerability of this plant species.



Small White Lady's-slipper is found in isolated populations in Hastings County in southeastern Ontario and Bkejwanong on the delta of the St. Clair River in southwestern Ontario.

The Natural Heritage Information Centre (NHIC) has received nearly 225 records of Small White Lady's-slipper based on observations made between 1903 and 2018. No new populations of Small White Lady's-slipper have been identified since 2008.

The potential range of the species is approximately 10 square kilometres based on recent observations, with an additional 22 square kilometres of historical habitat.



# Supporting human activities while ensuring appropriate support for species recovery:

Eight activities have been registered for the species. The activities were registered under 'Notice of drainage works' (section 23.9) and 'Threats to health and safety, not imminent' (section 23.18) under Ontario Regulation 242/08 of the ESA.



Small White Lady's-slipper

1999

Listed as Endangered

2008

Species Protected

2013



Habitat Protected 2016



Recovery Strategy Finalized

2016



Government
Response
Statement Finalized

2021



Review of Progress Finalized

### Species at Risk Stewardship Program By The Numbers

#### **Government-supported stewardship projects:**

Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct 13 projects (by providing \$548,133 in funding) that have supported the protection and recovery of Small White Lady's-slipper. One project focused on multiple species at risk, including Small White Lady's-slipper.

The government's support helped its stewardship partners to involve 784 individuals who volunteered 14,386 hours of their time towards protection and recovery activities for species at risk, including Small White Lady's-slipper. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is at least \$1,086,938.

Stewardship partners reported that through their actions 0.4 hectares of habitat were enhanced for Small White Lady's-slipper and other species at risk that inhabit the same ecosystem.

Stewardship partners providing outreach on multiple species at risk, including Small White Lady's-slipper to 554 individuals.

Through the Species at Risk Research Fund for Ontario, the Government of Ontario supported one research partner to conduct research on a remote method of detecting wind and insect pollinated plant populations.



projects included Small White Lady'sslipper



project for Small White Lady's-slipper exclusively



for projects that included Small White Lady's-slipper



in additional funding and in-kind support



**784** volunteers



14,386 volunteer hours



people received

554



hectares of habitat enhanced

0.4

#### **Spotted Gar**

#### Progress towards meeting the recovery goal:

The recovery goal in the government response statement (GRS) for Spotted Gar in Ontario is to "maintain self sustaining populations at existing locations and enable natural increases".

Progress has been made towards implementing all the government-led actions. Progress has been made towards implementing all of the government-supported recovery objectives and a majority of the associated actions.

#### **Example of progress include:**

- Implementation of best management practices on private properties in southern Ontario to reduce nutrient loading and sedimentation.
- Educating landowners and youth about Spotted Gar.
- Mitigating adverse effects to Spotted Gar through conditions of ESA permits, agreements and registrations.
- Research on Spotted Gar and its habitat.

In alignment with the GRS, more work is needed to evaluate threats and habitat needs of all life-stages in all locations where Spotted Far occurs, and to identify and implement measures to reduce sedimentation and herbicide use when removing overgrowths of aquatic vegetation that threaten Spotted Gar.



Nine populations of Spotted Gar have been documented in Lake Erie between Point Pelee National Park and Long Point National Wildlife Area, Muddy Creek (a Lake Erie tributary), Lake St. Clair, and Lake Ontario in Hamilton, Prince Edward County and the Bay of Quite. Seven of these populations are extant, whereas the remaining two are considered historical. Since 2008, the status of one population changed from historical to extant as its continuing persistence was confirmed through monitoring efforts. One additional population of Spotted Gar has been newly-identified since 2008.



### Supporting human activities while ensuring appropriate support for species recovery:

The Government of Ontario has issued 12 permits for this species, all of which were 'protection or recovery' 17(2)(b) permits.

Four drainage agreements were entered into for Spotted Gar. These agreements were enabled through Ontario Regulation 242/08 (prior to the July 1, 2013 amendment).

Fifteen activities have been registered for the species. The activities were registered under 'aquatic species' (section 23.4), 'drainage works' (section 23.9), 'ecosystem protection' (section 23.11), 'hydroelectric generating stations' (section 23.12), 'species protection, recovery activities' (section 23.17), and 'threats to health and safety, not imminent' (section 23.18) under Ontario Regulation 242/08 of the ESA.





Through the Species at Risk Stewardship Program, the Government of Ontario has enabled its stewardship partners to conduct 15 projects (by providing \$616,899 in funding) that have supported the protection and recovery of multiple species at risk, including Spotted Gar. One project focused exclusively on Spotted Gar, while the other 14 projects focused on multiple species at risk, including Spotted Gar.

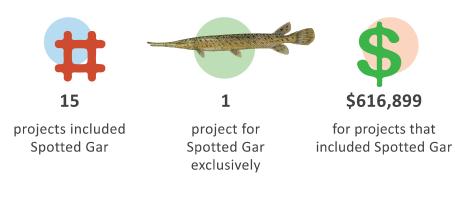
The government's support helped its stewardship partners to involve 105 individuals who volunteered 2,382 hours of their time towards protection and recovery activities for species at risk, including Spotted Gar. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$1,726,437.

Stewardship partners reported that through their actions 156 hectares of habitat were enhanced for Spotted Gar and other species at risk that inhabit the same ecosystem.

Stewardship partners reported providing outreach on multiple species at risk, including Spotted Gar, to 2,375 individuals.



# Species at Risk Stewardship Program By The Numbers





in additional funding and in-kind support





#### Wolverine

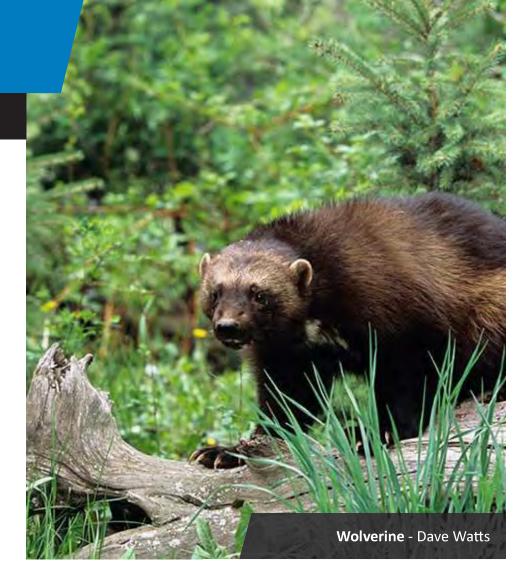
#### Progress towards meeting the recovery goal:

The recovery goal in the Government Response Statement (GRS) for Wolverine in Ontario is to "maintain the current distribution of Wolverine in Ontario and support natural increases in the population abundance and distribution".

Progress has been made towards implementing all of the government-led and government-supported objectives and the majority of the associated actions.

#### **Example of progress include:**

- Researching and promoting best management practices for fur trapping that minimize harm to Wolverine through efforts undertaken by the Ontario Fur Managers Federation (OFMF), the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF), and the Wildlife Conservation Society (WCS) Canada with funding support through the Species at Risk Stewardship Program (SARSP);
- Developing Community Based Land Use Plans and gathering of Traditional Ecological Knowledge on Wolverine through efforts undertaken in partnership with First Nations Communities in the Far North; and
- Extensive work by WCS Canada to track and monitor Wolverine while collecting data on habitat use.



It is recommended that continued efforts be made to address all GRS actions, and in particular develop, implement, and update, as needed, best management practices to reduce the effects of development activities, such as mining, infrastructure, and energy development on and around Wolverine dens.

Wolverine are widely distributed across northern Ontario, with an estimated range of 117,900 square kilometres based on recent observations.

The Natural Heritage Information Centre (NHIC) has received over 6,900 records of Wolverine, with over 6,700 of these observations occurring since the species was first listed in 2004. The records are based on observations between 1954 and 2020, with a significant majority of observations resulting from deliberate surveys for the species.

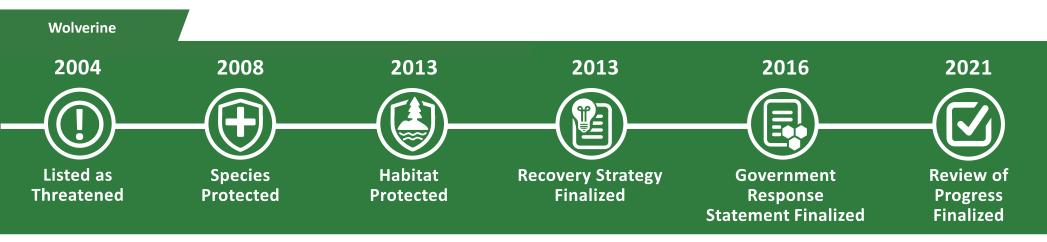
Since 2008, the species has been observed in locations where they were not previously known to occur and at locations previously thought to be historical. Based on up-to-date information, the species' extant distribution is estimated to be 90,400 square kilometres larger than in 2008. This increase in estimated distribution may be partially attributed to increased search effort and new observations in areas where the species was previously present. However, recent monitoring indicates that the species has been expanding its core range in recent years, and the increase in the estimated distribution may be reflective of this range expansion, particularly along the eastern periphery of the species' range.

### Supporting human activities while ensuring appropriate support for species recovery:

The Government of Ontario has issued seven permits for this species: Six of these permits were 'possession or transport for scientific or educational purposes' 9(5)(a) permits, and one was a 'social or economic benefit' 17(2)(d) permit.

Twenty-two activities have been registered for the species. The activities were registered under 'Early exploration mining' (section 23.10), 'Newly listed and transition species' (section 23.13), 'Species protection or recovery activities (section 23.178), 'Threats to human health or safety' (section 23.18), and 'notice of incidental trapping' (section 23.19) under Ontario Regulation 242/08 of the ESA.





Through the Species at Risk Stewardship Program the Government of Ontario has enabled its supported stewardship partners to conduct 17 projects (by providing \$1,001,751 in funding) designed to contribute to the protection and recovery of Wolverine. Six of these projects (\$446,650) focused exclusively on the species, while the other 11 projects (\$555,101) focused on multiple species at risk, including Wolverine.

The government's support helped its stewardship partners to involve 249 individuals who volunteered 4,930 hours of their time towards protection and recovery activities for species at risk, including Wolverine. The estimated value of these voluntary contributions, as well as additional funding and in-kind support, is \$1,069,515.

Stewardship partners reported providing outreach on multiple species at risk, inclduing Wolverine, to 15,449 individuals.

Through the Species at Risk Research Fund for Ontario, the government also provided funding to six projects (\$75,300) to conduct research on collecting genetic information on Wolverine populations, developing monitoring protocols for this species, and improving understanding of the species' distribution.

# observations of Wolverine were submitted to the NHIC since 2004

### Species at Risk Stewardship Program By The Numbers



projects included
Wolverine



projects for Wolverine exclusively



for projects that included Wolverine



\$453,460

for Wolverine exclusively



\$1,069,515

in additional funding and in-kind support



249

volunteers



**4,930** volunteer hours



15,449

people received outreach