



Bruce Trail
CONSERVANCY

Rare Species of the Niagara Escarpment

Thursday April 23, 2020





MISSION

**Preserving a ribbon of wilderness,
for everyone, forever.**

VISION

The Bruce Trail secured within a permanently protected natural corridor along the Niagara Escarpment.

VALUES

Commitment | Integrity | Stewardship | Collaboration | Respect

Species at Risk/Sensitive Species

- The Bruce Trail provides ecologically sustainable public access to the Niagara Escarpment
- The Escarpment is home to many sensitive species, some of which are globally rare



The 2 organizations that designate Species at Risk are:

Committee on the Status of Wildlife in Canada – COSEWIC

Committee on the Status of Species at Risk in Ontario - COSSARO

- A sensitive species is one that has been deemed by either the federal, provincial or municipal government to be rare in a given region, based on the number of reports of that species in that particular region.

The descriptions of the designations given to Species at Risk are:

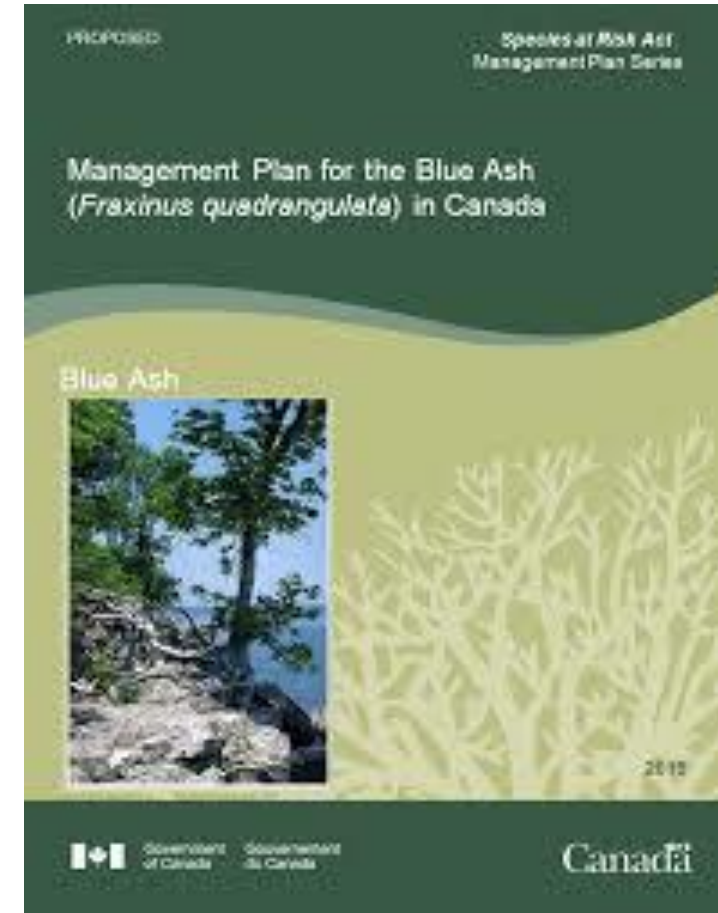
- Special Concern - A species with characteristics that make it sensitive to human activities or natural events.
- Threatened - A species that is at risk of becoming endangered if limiting factors are not reversed.
- Endangered - A species facing imminent extinction or extirpation.

- These designations are backed by the Federal Species at Risk Act and the Ontario Endangered Species Act. Any one of the above designations will classify a species as a “Species at Risk” and will afford that species protection.
- The criteria for a species’ protection are laid out in both the Species at Risk Act and the Endangered Species Act, as well as within the recovery strategy or management plan that are prepared for that particular species by the provincial and Federal governments.



Recovery strategies include information about:

- The species' habitat needs,
- The types of threats to the species, or ecosystem,
- Recommendations on how to protect and recover species and their habitats,
- The area that should be considered habitat. [this includes information on exactly how a species should be protected – i.e. a 25m area around a species at risk nesting site within which no disturbance or alteration can take place]
- There are often very severe fines, upwards of \$250,000 or a year in jail, for the disturbance or removal of a Species at Risk.





- Many rare species have not gone through the designation process yet but are considered species of conservation concern. In time, these will also be assessed and given a designation.



American Chestnut (Endangered)

Distinct Physical Features:

- glossy green leaves with straight parallel veins that end in a short, upwardly curved bristle.
- clusters of 2-5 nuts housed in a spiny green bur-like husk.
- bark is dark grey-brown and cracks with age.
- in Ontario trees are now typically only five to 10 m tall

Typical Habitat:

- occurs in dryer upland deciduous forests with well drained sands and gravels.
- being tolerant of shade it is often found under a tree canopy.
- found mostly in southern areas.



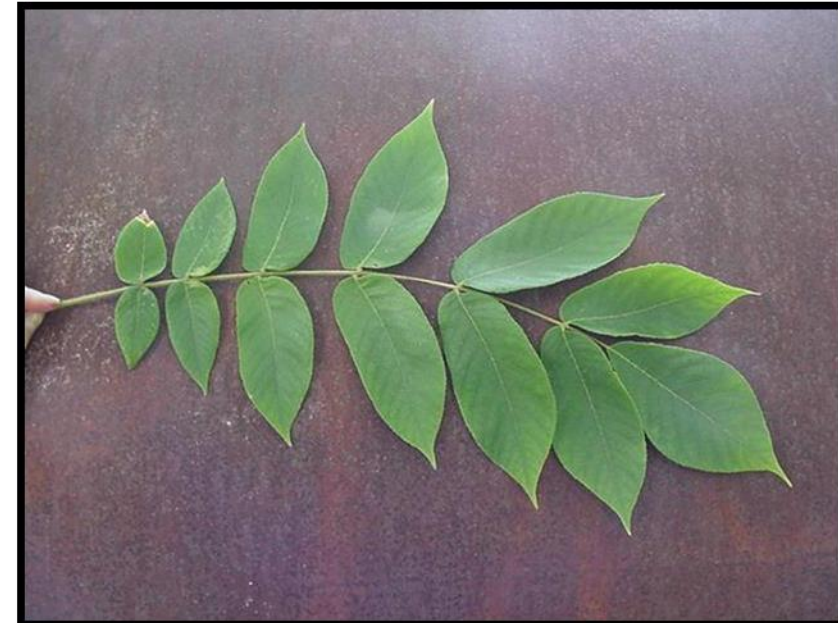
Butternut (Endangered)

Distinct Physical Features:

- leaves composed of 11-17 leaflets; terminal leaflet well developed.
- thick, light gray bark in broad, flat-topped ridges.
- fruit is a large nut that contains a single seed surrounded by a light green, sticky, fuzzy husk.

Typical Habitat:

- occurs on a variety of sites, including dry calcareous rocky soils (particularly limestone).
- individuals or in small groups mixed with other species.
- intolerant of shade.
- found from Niagara to Owen Sound, seldom on the Bruce Peninsula.





Black Walnut



Butternut
White Walnut



Juglans nigra

Juglans cinerea

(C) 2002, Gary Fewless



Butternut bark is ash-grey with flat topped ridges. →



Greg Bates

Black walnut bark is dark brown with deep furrows. →



Greg Bates

Eastern Flowering Dogwood (Endangered)

Distinct Physical Features:

- large distinct white flowers in spring.
- rough bark breaking into small plates.
- red fruit.
- oppositely arranged, paired, green, parallel veined leaves that end in a pointed tip.

Typical Habitat:

- an understory tree of deciduous woods, floodplains, slopes, bluffs and ravines.
- found in the Carolinian zone, mostly Niagara to Burlington.



American Ginseng (Endangered)

Distinct Physical Features:

- has palmately compound, toothed leaves arranged in whorl with five leaflets. The top three leaves are generally larger than the bottom 2.
- the ripened berries are in a tight cluster and reddish in colour.
- the flowers appear in a cluster or umbel at the same level as the leaves and they are small and greenish white in colour.

Typical Habitat:

- this wildflower is found in moist deciduous woodlands that are relatively undisturbed and of high quality. Also seem to thrive in creviced topography of Escarpment forests.
- found from Niagara to Tobermory.





Ginseng



Wild Sarsaparilla



American Harts Tongue Fern (Special Concern)

Distinct Physical Features:

- perennial evergreen fern.
- Its fronds are strap-shaped with a heart-shaped base and pointed tip, about 12 to 40 centimetres long.
- said to be shaped like a deer's tongue (a Hart is another word for deer in Europe).

Typical Habitat:

- grows on calcareous rocks, boulders and crevices in deep shade of deciduous forest, mostly dominated by maple/beech
- seems to be abundant from Halton to Warton.



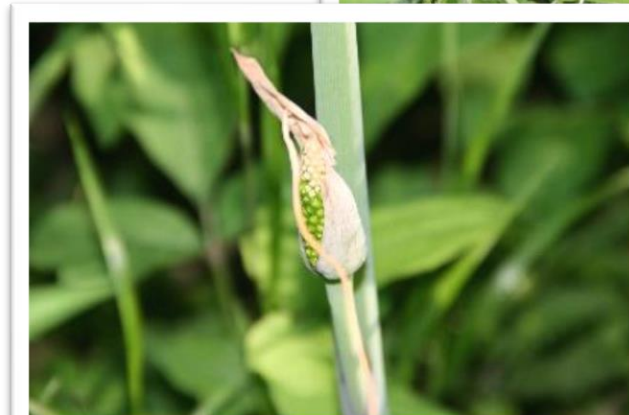
Green Dragon (Special Concern)

Distinct Physical Features:

- has only 1 leaf; however, the leaf stem forks so that there appears to be 2 separate leaves, each divided into 5–15 unequal leaflets which are arranged palmately (like the upturned palm of one's hand).
- a separate flower stalk holds the unique blossom which is a greenish, long-tipped spadix or floral spike (the dragon's tongue).
- the ripened berries are in a tight cluster and red-orange in colour.

Typical Habitat:

- moist deciduous floodplain woodlands, shady seeps, and wooded areas adjacent to springs, creeks and vernal pools
- found in the southern parts of Ontario, Niagara to Burlington.





Green Dragon



Jack in the Pulpit





Forest Birds

- Eastern Wood Pewee
- Woodthrush
- Red Headed Woodpecker



Snakes

Massasauga (Threatened) - Warton northward

- Look for the telltale rattle and the pupils with slits.

Eastern Ribbonsnake (Special Concern) - Niagara to Tobermory

- Has a distinct white crescent in front of the eye.

Milksnake (Good News story)

- No longer a SAR in Ontario





Grassland Birds

- Bobolink
- Eastern Meadowlark
- Grasshopper Sparrow



Turtles

All native Ontario turtles are now SARs

Snapping Turtle (Special Concern) – Niagara to Tobermory

Midland Painted Turtle (Special Concern) – Niagara to Tobermory

Map Turtle (Special Concern) – Mostly Niagara to Toronto, maybe northern areas

Blandings Turtle (Threatened) – Niagara to Tobermory

Spotted Turtle (Endangered) - Niagara to Tobermory

Eastern Musk Turtle (Special Concern) – Hamilton/Niagara

Wood Turtle (Endangered) - Mostly Niagara to Toronto, maybe northern areas

Spiny Softshell Turtle (Endangered) – Hamilton/Niagara



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Monarch (Special Concern/Endangered)

Distinct Physical Features:

- Wings are orange with black stripes and white spots.
- body is black with white spots.
- very similar to the Viceroy butterfly.

Typical Habitat:

- meadows, fields, fencerows, gardens.
- lays its eggs on Common Milkweed.
- found from Niagara to Tobermory.





Monarch



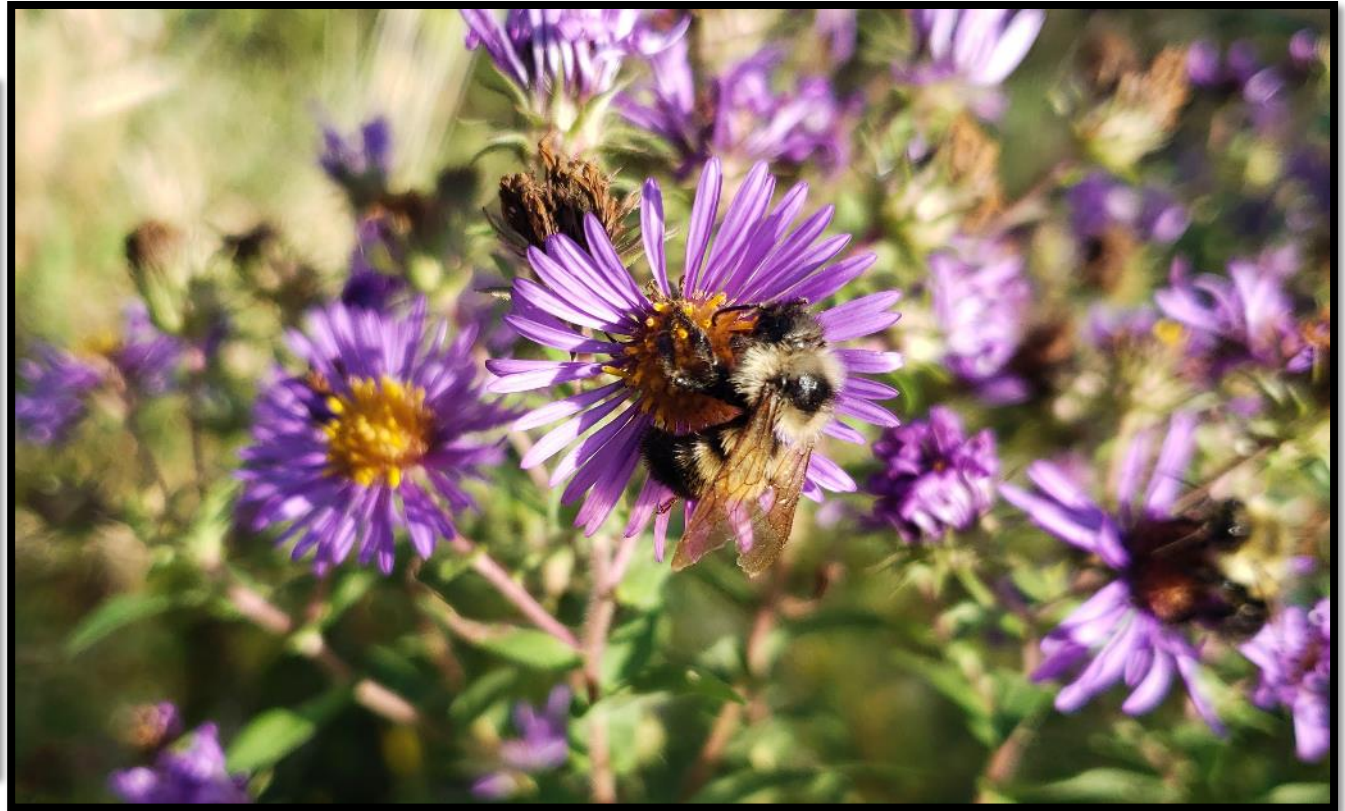
Viceroy





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Other Pollinators – Bees, flies, beetles, wasps, ants, moths



Jefferson Salamander (Endangered)

Distinct Physical Features:

- body is greyish with sometimes blue spots.
- Nearly impossible to separate from Blue Spotted Salamander (need genetic testing to verify).

Typical Habitat:

- deciduous forests, mainly Carolinian mature forests, where they breed in vernal or permanent natural pools.
- found from Niagara to Orangeville area.



If you do find a sensitive species:

- Take pictures if you can
- Mark the location with a GPS
- Contact BTC ecologists with photographs of multiple parts of the species in question, including: leaves, bark, buds, fruit/seeds and a description of the habitat in which it was found (i.e. in the understory of a Sugar Maple forest).
- **Never** make the locations of rare species publicly available.
- Avoid uploading it to Citizen Science apps (iNaturalist) unless you know how to obscure your location.

SARs on BTC Properties

- BTC ecologists track and monitor all SARS that are observed
- Currently we have identified over 1531 occurrences of 83 separate species protected on over 13000 ac of BTC lands

What does BTC do to protect rare species?



Bruce Trail CONSERVANCY

THE BRUCE TRAIL CONSERVANCY

SPECIES AT RISK

1,437 observations of these 74 Species at Risk have been recorded on Bruce Trail Conservancy managed land

1. American Cuckoo	12. Cassin's Kinglet	23. Giant Seaclaw	34. Junco	45. Marbled Murrelet	56. Prairie Warbler	67. Spotted Towhee	78. Tanager
2. American Osprey	13. Canada Jay	24. Garter	46. Cowbird	46. Cowbird	57. Marbled Murrelet	68. Tanager	79. Tanager
3. Bald Eagle	14. Chimney Swift	25. Green-winged Teal	47. Great Green Heron	47. Great Green Heron	58. Prairie Warbler	69. Tanager	80. Tanager
4. Barn Swallow	15. Common Nighthawk	26. Grasshopper Sparrow	48. Kingfisher	48. Kingfisher	59. Prairie Warbler	70. Tanager	81. Tanager
5. Bewick's Wren	16. Common Nighthawk	27. Great Green Heron	49. Kingfisher	49. Kingfisher	60. Prairie Warbler	71. Tanager	82. Tanager
6. Blue Jay	17. Cooper's Hawk	28. Green Heron	50. Kingfisher	50. Kingfisher	61. Prairie Warbler	72. Tanager	83. Tanager
7. Blue Jay	18. Downy Woodpecker	29. Great Green Heron	51. Kingfisher	51. Kingfisher	62. Prairie Warbler	73. Tanager	84. Tanager
8. Burrowing Owl	19. Eastern Bluebird	30. Green Heron	52. Kingfisher	52. Kingfisher	63. Prairie Warbler	74. Tanager	85. Tanager
9. Canada Warbler	20. Eastern Bluebird	31. Green Heron	53. Kingfisher	53. Kingfisher	64. Prairie Warbler	75. Tanager	86. Tanager
10. Canada Warbler	21. Eastern Bluebird	32. Green Heron	54. Kingfisher	54. Kingfisher	65. Prairie Warbler	76. Tanager	87. Tanager
11. Canada Warbler	22. Eastern Bluebird	33. Green Heron	55. Kingfisher	55. Kingfisher	66. Prairie Warbler	77. Tanager	88. Tanager
12. Canada Warbler	23. Eastern Bluebird	34. Green Heron	56. Kingfisher	56. Kingfisher	67. Prairie Warbler	78. Tanager	89. Tanager
13. Canada Warbler	24. Eastern Bluebird	35. Green Heron	57. Kingfisher	57. Kingfisher	68. Prairie Warbler	79. Tanager	90. Tanager
14. Canada Warbler	25. Eastern Bluebird	36. Green Heron	58. Kingfisher	58. Kingfisher	69. Prairie Warbler	80. Tanager	91. Tanager
15. Canada Warbler	26. Eastern Bluebird	37. Green Heron	59. Kingfisher	59. Kingfisher	70. Prairie Warbler	81. Tanager	92. Tanager
16. Canada Warbler	27. Eastern Bluebird	38. Green Heron	60. Kingfisher	60. Kingfisher	71. Prairie Warbler	82. Tanager	93. Tanager
17. Canada Warbler	28. Eastern Bluebird	39. Green Heron	61. Kingfisher	61. Kingfisher	72. Prairie Warbler	83. Tanager	94. Tanager
18. Canada Warbler	29. Eastern Bluebird	40. Green Heron	62. Kingfisher	62. Kingfisher	73. Prairie Warbler	84. Tanager	95. Tanager
19. Canada Warbler	30. Eastern Bluebird	41. Green Heron	63. Kingfisher	63. Kingfisher	74. Prairie Warbler	85. Tanager	96. Tanager
20. Canada Warbler	31. Eastern Bluebird	42. Green Heron	64. Kingfisher	64. Kingfisher	75. Prairie Warbler	86. Tanager	97. Tanager
21. Canada Warbler	32. Eastern Bluebird	43. Green Heron	65. Kingfisher	65. Kingfisher	76. Prairie Warbler	87. Tanager	98. Tanager
22. Canada Warbler	33. Eastern Bluebird	44. Green Heron	66. Kingfisher	66. Kingfisher	77. Prairie Warbler	88. Tanager	99. Tanager
23. Canada Warbler	34. Eastern Bluebird	45. Green Heron	67. Kingfisher	67. Kingfisher	78. Prairie Warbler	89. Tanager	100. Tanager

Questions

Q. Please talk about why we need to protect the Jefferson Salamander and about salamanders in general.

A. All native species have a role in the ecosystems of Ontario and when one is lost, all the other species which depend on that one are negatively affected.

Q. Which ferns are considered rare?

A. American Harts Tongue Fern, Wall rue Spleenwort, Laurentian Fragile Fern, Purple stemmed Cliffbrake, Broad Beech Fern.

Q. Has covid 19 affected the bird population ? i e less human presence, increased presence of other predators etc.

A. There has been some anecdotal evidence that wildlife in general being more active since the human presence has lessened but nothing really concrete yet. I'm sure there are lots of studies taking place at the moment.

Q. Considering there is a 60% decline in wildlife populations (WWF), isn't it time that as stewards of this ribbon of wilderness we protect wildlife by banning dogs from the trail?

A. Dogs are not allowed off leash on BTC lands so should be controlled. The BTC does not have jurisdiction on other lands the trail crosses.

Q. Hawks congregate around Beamer in spring when returning. Which hawk/s do not migrate or does it depend?

Q. Are any hawks presently endangered? We have red-tailed hawks all year in the Oakville ravines. There is a nesting pair right now outside my window. Thanks.

A. Most hawks migrate but some species like the Red Tailed Hawk and American Kestrel tend to overwinter in Ontario. Raptors are a good news story as many species that were once considered rare have rebounded in recent years. One example is the Bald Eagle.

Q. When survey/searches are conducted, are landowners notified if a rare species on their properties or is this kept internally to protect the species in question?

A. BTC ecologists only survey on BTC land. Generally ecological practice is to share the knowledge of any rare species with the landowner.

Q. What type of owls are common to see here? Rare to see here?

A. Common species include Great Horned Owl, Eastern Screech Owl, Saw-whet Owl, Long Eared Owl. Snowy Owl, Barred Owl and Great Gray Owl seen in winter. Rare occurrences are Northern Hawk Owl, Short Eared Owl.

Q. Any observations on Blue Birds?

A. They were once a threatened species but with the attention of their decline, many people began erecting nesting boxes which allowed their populations to rebound and they are quite common now.

Q. What species are extirpated from the southern regions of the trail that are still present in northern regions?

A. Black Bears, Eastern Cougar, Massasauga Rattlesnake. In fact with climate change it is thought that some rare southern species may expand their range northward to areas where they were never really common.

Q. What does the BTC do to protect rare species?

A. All land acquired by the BTC is conservation land and protects rare species.

MISSION

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for everyone, forever.**

VISION

The Bruce Trail secured within a permanently protected natural corridor along the Niagara Escarpment.

brucetrail.org

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charity in Canada for 2020
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