



Preliminary Screening for Species at Risk

9782 Northville Crescent

Lambton Shores Ontario

NOM 2N0

Prepared for:

G. Pedlar

Prepared by:

Jessica Smeekens, R.P.F.

August 2021

Revised November 2021

Introduction

This document is intended to provide all necessary information for the Preliminary Screening phase of the requirements under the Endangered Species Act, 2007.

Scope

This document is seeking to present all site information regarding known Species at Risk in the local area, to determine if any site activities will affect these Species at Risk and to initiate the Preliminary Screening for Species at Risk. The Ministry of Environment, Climate Change and Parks has requested that the following species be investigated:

Cucumber Tree (*Magnolia acuminata*) END;
Mottled Duskywing (*Erynnis martialis*) END,
Northern Bobwhite (*Colinus virginianus*) END,
Five-lined Skink (*Plestiodon fasciatus*) END,
Whip-poor-will (*Antrostomus vociferus*) THR,
Cerulean Warbler (*Setophaga cerulea*) THR,
Gray fox (*Urocyon cinereoargenteus*) THR,
Eastern Hog-nosed Snake (*Heterodon platirhinos*) THR,
Blanding's Turtle (*Emydoidea blandingii*) THR,
Wood Thrush (*Hylocichla mustelina*) SC.

This report also includes information on Dwarf Hackberry (*Celtis tenuis*) as it was discovered on site.

Information Reviewed for this Report

The Land Information Center was used, however the richest information regarding the Species at Risk on site was attained from the Natural Heritage Information Center. Results are available in APPENDIX III. The Kettle and Stony Point First Nations Band office was notified and asked for a site visit or comment on the site, but to-date there has not been a reply.

Background

Site Location

Lot and Concession:

Part 2 Lot 35 East of Lake Road

Address:

9782 Northville Crescent in Lambton Shores

Zoning and Land-Use

The site is in the municipality of Lambton Shores, Ontario, within the planning region Port Franks/Northville, on Northville Crescent, North of Highway 21. The subject site is zoned: Residential Port Franks/Northville. The principal policies that affect this development that are unique to this planning area are:

- Infilling on existing lots in Port Franks and Ipperwash is permitted provided the lot is large enough to accommodate an individual on-site sewage system,
- New lot creation in Ipperwash and Port Franks is limited to five (5) lots or less from a lot existing on the day of approval of the Plan,

-No new large-scale developments are anticipated in the 20 year Planning Horizon. (Municipality of Lambton Shores, Official Plan 2015, Map Schedule A3 2019).

The site is a 1-acre parcel that is seeking to be severed from the existing 5.96 acre lot (1 lot at 1 acre, 1 lot at 4.96 acre, after severance). The existing 5.69 acre lot has a single storey apartment complex and a garage, presently there is 4.91 acres of the 5.69 acres that remains as natural forest cover. The lot is East and South of the property boundary for Northville Estates, a retirement mobile home community. The mobile home area of Northville Estates occupies approximately 4 hectares of the 20.3 hectare property, the 16.3 hectares that is not mobile homes is maintained as natural forest cover and is zoned Campground and Trailer Parks (Municipality of Lambton Shores, Official Plan 2015, Map Schedule A3 2019).

The site and surrounding natural areas were logged more than 50 years ago. The subject site is covered in natural vegetation. There is a narrow (2 meter) vegetation strip at the property line of both adjacent properties (to the East and to the West), Northville Crescent runs along the south perimeter of the site. The north perimeter of the site is adjacent to the natural dune areas belonging to the Northville Estates property.

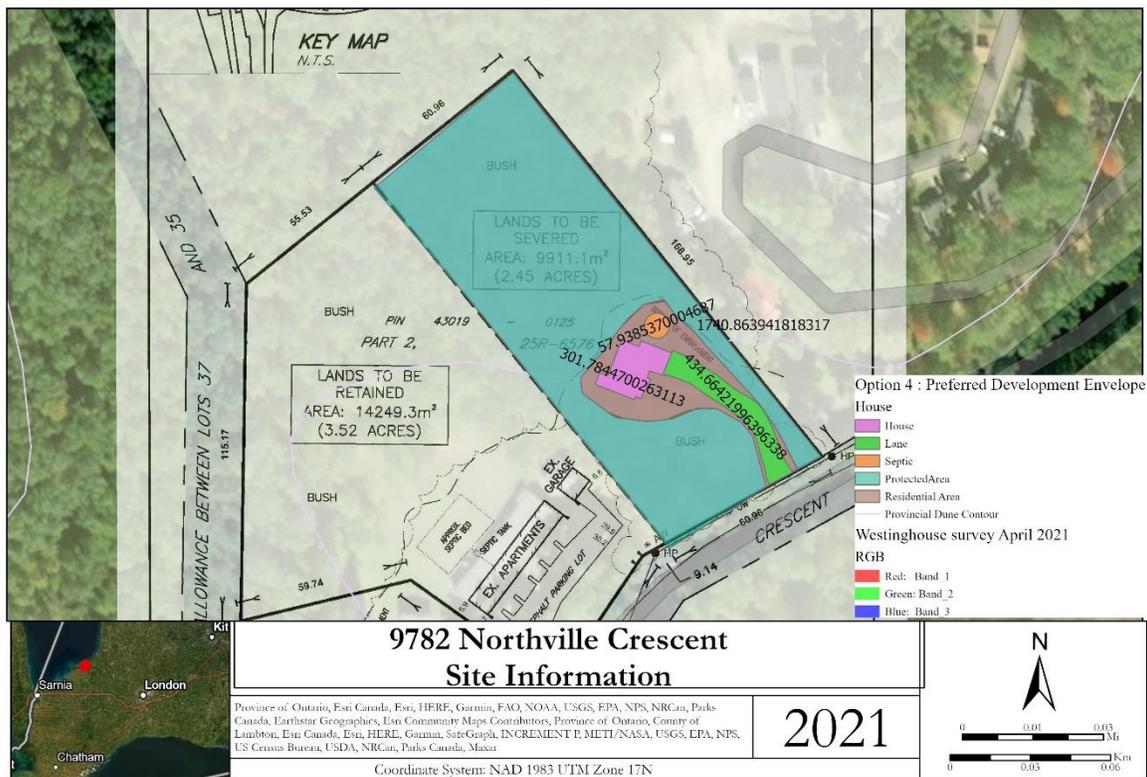


Figure 1. Map of the site with Land Survey Overlay

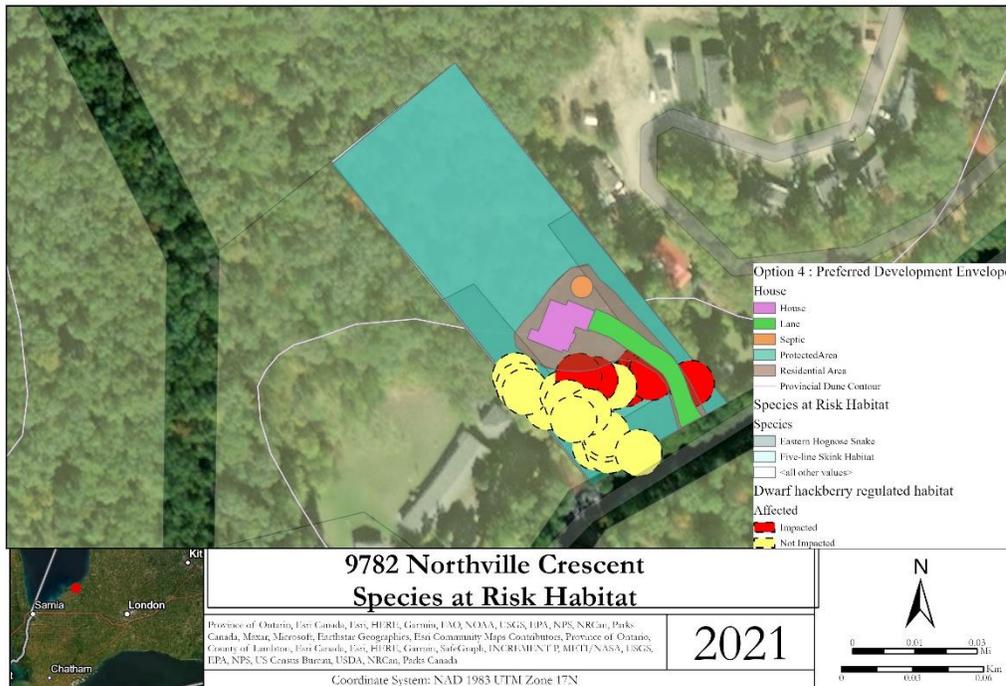


Figure 2. Map of the property with Environmental Features

Natural Heritage Designation

The property lies within the Environmentally Significant Area designated by Lambton County 1979-1980. More than 80% of the proposed severed property is designated as Significant Woodlot by the Lambton County Natural Heritage Study (Municipality of Lambton Shores, Official Plan, 2015 consolidated July 2020, Lambton Shores Official Plan, Map Schedule A3, 2015, County of Lambton Official Plan, Map 2, 2020). The subject site occurs within the County of Lambton “Group B” features. Group B features are defined as: lands adjacent to Group A features and adjacent to certain Group B features as noted in these policies, significant woodlands, significant valleylands, significant wildlife habitat, provincially significant areas of natural and scientific interest (ANSIs) and regionally significant ANSIs. The site lies within Lower Great-Lakes St. Lawrence Bird Conservation Region, and adjacent to the Port Franks Dunes – Important Bird Area (IBA) (Birds Canada 2020).

Purpose

The purpose of the work at this site is to build a home set within nature. It is anticipated that the owner would like to build a one-story residence with a septic system, driveway with xeric, native landscaping. There is no lawn or irrigation planned on this site. The anticipated future development would require the removal of some vegetation, excavation and grading within the development footprint. The landowner is very interested in the Natural Heritage of the region and is seeking to modify the development process to minimize any impact to the surrounding natural heritage features and enhance the property as much as possible for native flora and fauna. Additionally, the landowner is interested in designating the non-developed portions of the property as

Environmentally Protected to prevent future development should the home sell to a new property owner.

Site Ecology

The site is underlain by Sand and has varying topography as a result of the sand dune complex which underlays most of Port Franks. The property frontage along Northville Crescent is level and has a richer species diversity than the back (North end) of the lot where the moisture regime is drier. Overall, the entire site is classified as Deciduous Forest, Dry-Fresh Oak Deciduous Forest Type because the tree canopy cover is greater than 60% and the species composition is Oak dominant. The front of the lot (South) has a higher composition of Trembling Aspen (*Populus tremuloides*), Sassafras (*Sassafras albidum*), and Tulip tree (*Liriodendron tulipifera*), and all the Dwarf Hackberry (*Celtis tenuifolia*) found on site; suggesting that the canopy was recently more open in this portion of the property, but that suppression of ground fires and lack of forest management intervention has allowed the stand to success beyond the Dry-Tall Grass Woodland vegetation type. The rear of the property has undulating topography that gradually increases towards the north to 15 meter dune. The forest composition in this part of the property is also classified as Deciduous Forest, Dry-Fresh Oak Deciduous Forest, however the Oak composition is much higher and shade tolerant species such as hemlock can be found. There is a small meadow marsh community on the dune.

The canopy layer is White Oak (*Quercus alba*) dominant, with Trembling Aspen as the second most common species in the canopy layer. Red and Black Oak (*Q. rubra*, *Q. velutina*) each comprise 10% of the canopy layer. The sub canopy composition of the stand is diverse: Red maple (*Acer rubrum*), Tulip tree, Black cherry (*Prunus serotina*) and White Pine (*Pinus strobus*), Black walnut (*Juglans nigra*) and Sassafras were all present in the basal area tally.

The understory layer is rich in diversity, Alternate Leaved Dogwood (*Cornus alternifolia*) is the dominant species with Dwarf hackberry nearly as common in this layer. Additional species in the shrub layer are Shagbark Hickory (*Carya ovata*), Staghorn sumac (*Rhus typhina*) and Gray dogwood (*Cornus racemosa*). The ground layer lacks any species in dominance, but many species are abundant: Bracken fern (*Pteridium aquilinum*), Oak sedge (*Carex pensylvanica*), Starry Solomon's Seal (*Maianthemum stellatum*) and Poison Ivy (*Toxicodendron radicans*) were all common in the understory. Wood lily (*Lillium philadelphicum*), wintergreen (*Gaultheria procumbens*) and partridgeberry (*Mitchella repens*) were found occasionally throughout the site.

General Methods and Mitigation Measures

To mitigate for impacts to avian species that may be present on site, vegetation clearing will be completed outside of migratory bird nesting windows (early April to late August) to ensure compliance with the Migratory Birds Convention Act. Trees that must be removed for the build will have their tops delimbed and removed from site, and the tree boles will be laid out in the natural areas on the property as habitat for Eastern Hognose Snake, Five-line skink and nesting for insect species.

The work area (the footprint of the building area + set backs) will be clearly delineated with stakes and where appropriate will include wildlife exclusion fencing. All construction materials, soil storage, work equipment and personnel will operate inside the prescribed work area. **The Dwarf hackberry intended for perseveration will be outside of the development envelope, clearly marked and the standard protocol for a Tree Protection Zone will be followed.**

Contractors will be provided with a Species at Risk orientation package that details the species that may be encountered, who to report the finding to and the pressing time frame, as well as clean equipment best practices. The landowner will be provided with a Living Near Natural Areas package that details the Oak Savannah ecology, native plant recommendations, and landscape and maintenance considerations.

The landowner is willing to set aside the remaining natural areas outside of the prescribed clearing area as environmentally protected. The landowner has agreed to not perform any additional clearing on site and will preserve the natural heritage features.

Downspouts from the home will be directed into rain gardens to reduce septic load as well as to offset the rain diversion from the site.

Timing

Under ideal circumstances the build will begin in **October of 2023**. This will prevent working during the breeding season of migratory birds and eliminate many encounters with wildlife, SAR or otherwise.

Conclusions

Dwarf Hackberry (*Celtis tenuis*) THR

There are 8 Dwarf hackberry on site where their regulated habitat will be infringed upon during the development process (Figure 2).

Cucumber Tree (*Magnolia acuminata*) END

There were no specimens discovered during the plant inventories and it is assumed the viability of this species will not be affected by the development of the site.

Mottled Duskywing (*Erynnis martialis*) END,

The landowner has been provided this document, outlining the impacts of domestic use of Btk on the Mottled Duskywing. There were no *Ceanothus* sp. discovered during the plant inventory, but specimens may be released as a result of the canopy clearing required for home and lane buildings. If this is of a concern, the general area of Port Franks and the Grand Bend Lakeshore should have a public notification regarding the impact of domestic use of BTK and the effects on the mottled Duskywing as one property alone cannot provide sufficient area for viable populations.

Northern Bobwhite (*Colinus virginianus*) END

The forest is not connected to any tall grass prairie or open field habitats, and it is assumed that this species will not be affected by the development of this site.

Five-lined Skink (*Plestiodon fasciatus*) END

There were no specimens discovered during the plant and ELC inventory, however the site is of suitable habitat and with the land clearing required for house and lane way the forest canopy may be reduced sufficiently to provide habitat for this species. The landowner has agreed to leave all remaining natural areas undisturbed and provide environmental protection of these areas. It is assumed that 0.17 ha of skink habitat will be affected by this development.

Whip-poor-will (*Antrostomus vociferus*) THR

The Whip-poor-will is a local gem of the area and at present the forest canopy is too dense to support habitat for this species. As a result of the land clearing required for the home and lane, the forest canopy may be reduced to provide suitable habitat. The landowner has agreed to

provide protection to the remaining natural areas and this activity may enhance the habitat for this species.

Cerulean Warbler (*Setophaga cerulea*) THR

The Cerulean Warbler lacks specific habitat protection in the local area. The land clearing may reduce the amount of suitable habitat for this species. However, with a recent sighting in 2020 it is assumed that 0.17 ha of Cerulean Warbler habitat will be affected by this development.

Grey fox (*Urocyon cinereoargenteus*) THR

There are no recent documentation of this species in the local area. As a result, it is assumed this species will not be affected by this development.

Eastern Hog-nosed Snake (*Heterodon platirhinos*) THR

There are numerous local reports of the Eastern Hognose snake in the area, the legally regulated habitat for this species is considered open forest and it is assumed there will be 0.09 ha of Eastern hognose habitat affected by this development.

Blanding's Turtle (*Emydoidea blandingii*) THR

There is a vernal pool with graminoides present that may be considered Category 1 habitat for the Blanding's Turtle present on site. It is not found within the development area, and the landowner has agreed to protect all remaining Natural Heritage outside of the development footprint. The remaining areas on site would be considered Category 3 habitat, used for traversing to suitable habitat. It is assumed that there will be no Category 1 or 2 habitats for this species to be affected during the development of this site.

Wood Thrush (*Hylocichla mustelina*) SC.

The habitat of this site is conducive to Wood Thrush breeding. However, there is no habitat regulation on this species. In general, this species requires high density forest cover and the small building envelop is intended to reduce impact on this species. It is assumed that 0.17 ha of Wood Thrush habitat will be affected by this development.

APPENDIX I Species at Risk Descriptions

DWARF HACKBERRY (*CELTIS TENUIFOLIA*)

Summary Table

Kingdom, Phylum, Class	Plantae, Tracheophytes, Angiosperm
Habitat Distribution	As south as Texas, east as the eastern seaboard, north as southern Ontario and as west as eastern Texas.
Home Range	Six populations are known within Ontario (Peelee Island, Point Pelee National Park, Lambton County, and three in Hastings County (Point Anne Alvar, Stirling Slope Complex Area of Natural and Scientific Interest, and the Salmon River Alvar). Suitable habitat is said to be unoccupied in Ontario (Caradoc, Bothwell, and Norfolk sand plains).
Critical Habitat (Soils and vegetation)	Shrub and treed sand dunes, oak savannas, and red cedar-treed alvars. The dry sands of dynamic shorelines, more stable inland dunes, and kame ridge tops. Dry limestone alvar/broken bedrock sites, as well as major migratory bird flyways in Ontario. Dwarf Hackberry is a moderately shade intolerant tree.
Threats	Changes in ecological dynamics or natural processes, or activities (bark beetles, snails), disturbance or harm (inappropriate logging activities), habitat loss or degradation.
Identifiable features (temperature, weather, survey timing)	Typically, 1-4 metres in height, sometimes up to 10 m. A deciduous tree with light grey bark and upright stiffly- divaricate branches and twigs. Reproduces sexually from wind-pollinated hermaphroditic flowers. Produces small round orange-brown fruit with a single seed for reproduction. The leaves are broad and oval at the base which tapers to a point. The leaf edge is variable with few to many teeth.
Special Notes	Many insects rely on the Dwarf Hackberry for survival. Several rare insects depend on the Dwarf Hackberry for part of their life cycles including beetles that were only recently discovered in Canada.

LEGALLY REGULATED HABITAT

Critical Habitat- Environmental Attribute Based

Across the species' range, the biophysical attributes of Dwarf Hackberry critical habitat include open to moderately vegetated areas, often with a relatively high level of natural disturbance or harsh environmental conditions. These attributes occur in the following locations and situations:

- dry, sandy, well-drained sites with open, early successional habitats near the shores of:
 - Lake Erie: along the leading edge of woody, shoreline vegetation adjacent to woodland or forest and in adjacent shrub and/or treed sand dune, shrub shoreline, and deciduous thicket communities at Point Pelee National Park (Jalava et al. 2008) and Fish Point (Pelee Island),
 - Lake Huron: at inland, ancient Lake Warren dune sites in tallgrass savanna communities and along dry oak/pine woodland and forest edges, in natural forest canopy gaps, on the tops of dune ridges and mounds, and on steep, south-facing dune slopes from Grand Bend to Kettle Point (Lambton County – Dunster 1992, Mills and Craig 2008) and,
 - Hastings County (Stirling Slope Complex ANSI): on kame ridge top prairie and savanna remnants above the Trent River along the ancient Lake Iroquois shoreline (Brownell and Blaney 1995), and
- open woods, maintained by extreme droughty conditions, on dry, calcareous, alvar and/or treed rock barren sites at Point Anne Alvar, the Salmon River Alvar ANSI (Lonsdale), and historically in the interior of Pelee Island (Red Cedar Savanna) (Norris 1994, Ambrose 2003, NHIC 2010a, 2010b, 2010c).

Critical Habitat- Occupancy Based

A circle of 9 m radius surrounding the trunk of each individual, naturally occurring Dwarf Hackberry within each park, plus all habitats within a shape that encompasses the tree root zone of all Dwarf Hackberry trees that are within 100 m from one or more other Dwarf Hackberry trees, excluding wetlands, which are unsuitable habitat.

Community classes identified under the land classification system for southern Ontario

Open to moderately vegetated areas	
Relatively high level of natural disturbance or harsh environmental conditions	
Dry, sandy, well-drained sites with open, early successional habitats	
Dune sites in tallgrass savanna communities	
Kame ridge top prairie and savanna remnants	

References

Ontario Ministry of Natural Resources. 2013. Recovery Strategy for the Dwarf Hackberry (*Celtis tenuifolia*) in Ontario. Ontario Recovery Strategy Series. Ontario Ministry of Natural Resources, Peterborough, Ontario. iii + 5 pp + Appendix vi + 43 pp. Adoption of Recovery Strategy for Dwarf Hackberry (*Celtis tenuifolia*) in Canada (Parks Canada Agency 2011)

MOTTLED DUSKYWING (*Erynnis martialis*)

Summary Table

Kingdom, Phylum, Class	<i>Animalia, Arthropoda, Insecta, Lepidoptera</i>
Habitat Distribution	Historically, Mottled Duskywing existed throughout the eastern and central United States and parts of south-central Canada. Nationally, populations of this species ranged from southeastern Manitoba to southern Ontario to southwestern Quebec (now thought to be extirpated).
Home Range	This species is not migratory. The life cycle is completed within a local range and individuals are not often found very far from suitable habitat (<i>Ceanothus</i> sp.). The species overwinters as a pupae and adults are flying and laying eggs from mid-May to June and a second brood in July-late August (Layberry et al. 1998).
Critical Habitat (soils and vegetation)	The Mottled Duskywing is not a migratory species, and therefore occupies its habitat throughout the year in its various life stages (Figure 2). It is generally a local species, tending not to stray too far from suitable habitat containing its larval food plants [Prairie Redroot (<i>Ceanothus herbaceus</i>) and New Jersey Tea (<i>C. americanus</i>)].
Threats	Habitat fragmentation, habitat destruction, Succession, disturbance, and canopy closure, deer browsing and pesticides (<i>Bacillus thuringensis</i>).
Identifiable features (temperature, weather, survey timing)	The Mottled Duskywing (<i>Erynnis martialis</i>) is a medium-sized (wingspan: 25-33 mm) dark grey/brown skipper butterfly with a very mottled appearance and in freshly- emerged adults, a purplish hue. Both males and females have yellow-brown spots creating the mottled hindwing

	<p>pattern, this distinguishes the species from the other skippers.</p> <p>As the population levels for this species are generally low, the best indicator for species presence is the presence of their larval host plants <i>Ceanothus</i> sp.</p>
Special Notes	<p>Conservation status rankings: GRANK: G3 NRANK: N2N3, SRANK: S2</p>

References

- Layberry, R.A., P.W. Hall, and J.D. Lafontaine. 1998. *The Butterflies of Canada*. University of Toronto Press, Toronto. 280 pp
- NatureServe. 2014. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://explorer.natureserve.org> (accessed July 2014)
- Linton, Jessica. 2015. Recovery Strategy for the Mottled Duskywing (*Erynnis martialis*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario. v + 38 pp.

CUCUMBER MAGNOLIA (*Magnolia accuminata*)

Summary Table

Kingdom, Phylum, Class	<i>Plantae, Angiosperms, Magnoliacea</i>
Habitat Distribution	In Canada, Cucumber Magnolia is found in Norfolk County south and west of Simcoe and the Town of Pelham within the Regional Municipality of Niagara). The species is also believed to be found within Stoney Point, of Kettle and Stoney Point First Nations. There are no local records (iNaturalist, Pinery Park Vascular Plant Checklist) of Cucumber Magnolia, all evidence of the species being locally present known to the author are anecdotal.
Home Range	Deciduous or mixed forest with rich, moist, medium to coarse-textured soils (Ambrose and Aboud 1984; COSEWIC 2010). Trees are often found in a headwaters area with undulating topography of low swampy areas interspersed with rises with the trees occurring on the drier areas above the saturated soils (Ambrose and Aboud 1984; COSEWIC 2010). Canopy openings are required for regeneration. Found within

	Forests (FO), Swamps (SW) and cultural plantations (CUP).
Critical Habitat (soils and vegetation)	The critical habitat in the recovery strategy identified sites with 10 or more mature trees that have regeneration on the basis that smaller populations are at risk of loss because of stand altering events (ice storms, insect infestations). The Action Plan suggests this is too restrictive as these smaller populations are stepping stones and provide genetic diversity to the overall population. Additionally, sites where natural regeneration is not observed discounts the ability for forest management to create suitable light conditions for this species to regenerate. Based on the largest recorded specimen diameter (Canadian population) of 99 cm, the critical root zone is considered to be 20 meters (99 cm x 18 cm = 17.82 m rounded to the nearest 5 m) (Environment Canada 2015).
Threats	Habitat fragmentation, habitat destruction, changes to ground water levels, and the subsequent effect on soil moisture regimes.
Identifiable features (temperature, weather, survey timing)	Leaves alternate, simple and entire. Known as the shining tree for the silvery foliage. Ripe seed pods are brilliant red. Grows 60-80 feet tall.
Special Notes	Conservation status rankings: GRANK: G5 NRANK: N2, SRANK: S2

Regulated Habitat

Cucumber Tree is listed as Endangered under the Species at Risk Act and is regulated under Ontario's Endangered Species Act. This provides protection to the individual and its habitat. Ontario's Provincial Policy Statement (PPS) also offers protection by not permitting development or site alteration in its significant habitat. Four of the populations are also designated as Areas of Natural and Scientific Interest (ANSIs), three of which are regional and one of which is provincial; however, only provincial ANSIs are afforded protection under the PPS (Ambrose 2007).

References

- Ambrose, J. & D. Kirk. 2007. Recovery Strategy for Cucumber Tree (*Magnolia acuminata* L.) in Canada. Prepared for the Ontario Ministry of Natural Resources by the Cucumber Tree Recovery Team, viii + 24 pp. + addenda.
- Environment Canada. 2015. Action Plan for the Cucumber Tree (*Magnolia acuminata*) in Canada. Species at Risk Act Action Plan Series. Environment Canada, Ottawa. iv + 23 pp
- McKeating, G. 1983. Management plan: Long Point National Wildlife Area. Canadian Wildlife Service, Environment Canada – Ontario

GREY FOX (*Urocyon cinereoargenteus*)

Summary Table

Kingdom, Phylum, Class	<i>Anamalia, Chordata, Mammalia, Carnivora, Canidae</i>
Habitat Distribution	From the Atlantic coast of the southern Maritimes, through the American Midwest, to Southern British Columbia to the northern fringe of South America. Pelee Island and Northwestern Ontario have known breeding populations. There are historical records in the local area of Lambton Shores, however the closest recent records are from Bruce County and Point Pelee. In 1980-1981 an adult Gray fox was radio tagged in Lambton County.
Home Range	Radio tracking has determined that the home range of a single Grey fox ranges from <30 ha to over 1000 ha, the Lambton County 1980-1981 study found that the fox ranged from 210 ha in March-November to 1570 ha January-February.
Critical Habitat (soils and vegetation)	<p>Gray fox are habitat generalists and have been observed in forests, brush, agricultural lands, marshes, urban areas and reclaimed surface mines, but are considered to prefer deciduous forests. The occurrences of Grey Fox are observed in areas with the greatest forest cover in North America. Dens tend to be located in areas with dense brush and within 400 m of a permanent source of water.</p> <p>The critical habitat is defined by occupancy then according to suitable habitat. Habitat is considered occupied when a record from the breeding season (February 15-August 31) is near at least one other record of a Grey Fox (from any time of year), or the breeding season record and at least one other record in close proximity occur at least one year apart.</p> <p>NatureServe (2009) guidelines for separation distances: they occur within 5 km of one another, or they occur within 15 km of one another, but are linked by continuous suitable habitat. Suitable Habitat includes; Deciduous Forest (FOD); Coniferous Forest (FOC); Mixed Forest (FOM); Plantation (CUP); Tallgrass Savanna (TPS); Tallgrass Woodland (TPW); Cultural Meadow (CUM); Cultural Thicket (CUT); Cultural Savanna (CUS); and Cultural Woodland (CUW). Located within a radial distance of 934 m of a known record of a Grey Fox. If the habitat patch extends beyond the radial distance it is included in suitable habitat. Or the area within a 100 m radial distance from a Grey Fox den</p>

Threats	Incidental hunting and trapping, also face threats from road mortality and disease (especially canine distemper and rabies).
Identifiable features (temperature, weather, survey timing)	The Grey fox is distinguished from other fox by the black strip along its tail. Size ranges from 76-112 cm, with females slightly larger than males. Hairs are banded with white, grey, and black and displays white on the ears. The Grey fox is the only candid in North America that can climb trees where it dens and hunts. This species is nocturnal.
Special Notes	Conservation status rankings: G-rank: G5; N-rank: N1; S-rank: S1

References

- Lee, H., W. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, & S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximations and Its Application. Ontario Ministry of Natural Resources. SCSS Field Guide FG-02. Ministry of the Environment, Conservation and Parks. 2019. Recovery Strategy for the Gray Fox (*Urocyon cinereoargenteus*) in Ontario. Ontario Recovery Strategy Series. Prepared by the Ministry of the Environment, Conservation and Parks, Peterborough, Ontario. iv + 5 pp. + Appendix. Adoption of the Recovery Strategy for Grey Fox (*Urocyon cinereoargenteus*) in Canada (Environment Canada 2018).
- NatureServe. 2009. Animal EO Specs – Separation Distances and Inferred Extent Distances. NatureServe, Arlington, Virginia. [accessed November 2015]

CERULEAN WARBLER (*Setophaga cerulea*)

Summary Table

Kingdom, Phylum, Class	<i>Anamalia, Chordata, Aves, Passeriformes, Parulidea</i>
Habitat Distribution	This species is found in Canada in eastern Ontario and southwestern Quebec, in mature deciduous forests and winters in the montane regions in the Northern Andes of South America. In Ontario there are two population areas; in the Carolinian Forests between south Lake Huron and Lake Ontario and in a band from southeastern Georgian Bay towards the Frontenac Axis near Lake Ontario.
Home Range	Average territory size in eastern Ontario was reported to be 1.04 ha and ranged from 0.38 ha to 2.4 ha (Oliarnyk and Robertson 1996).

<p>Critical Habitat (soils and vegetation)</p>	<p>Forest cover within a 10-km radius was found to have a significant effect on the abundance of Cerulean Warblers. In Ontario, deciduous forests dominated by Oak (<i>Quercus</i> sp.) and/or Maple (<i>Acer</i> sp.), and are often associated with swampy bottomlands. This species prefers large tracts of continuous habitat but the forest cover (>75% within 10 km) between habitat tends affect habitat utilization. Sugar Maple (<i>Acer saccharum</i>), White Ash (<i>Fraxinus americana</i>), Oaks, and American Elm (<i>Ulmus americana</i>) were also used as song-post trees by the Cerulean Warbler in eastern Ontario (Barg et al. 2006). In the United States, White Oak (<i>Q. alba</i>) and Sugar Maple were selected as nesting trees by the Cerulean Warbler, while Red Oak (<i>Q. rubra</i>) and Red Maple (<i>A. rubrum</i>) were avoided for nesting, foraging or as song posts (reviewed in Buehler et al. 2013). The Critical habitat for this species is spatially defined in the National Recovery strategy. Although there are numerous occurrences in Southern Ontario, there is no spatially defined critical habitat that is locally listed for this species.</p>
<p>Threats</p>	<p>Habitat degradation in the wintering grounds, habitat loss and degradation in the breeding grounds. Collisions with tall structures during migration and catastrophic weather events contribute to the decline of this species.</p>
<p>Identifiable features (temperature, weather, survey timing)</p>	<p>The Cerulean Warbler is a small songbird (11.5 cm long, 8-10.5 g). The adult male is deep blue on the back and white on the stomach, with a dark band across the throat, females are blue green on the back, white with yellow on the stomach and a yellowish-white eyebrow.</p>
<p>Special Notes</p>	<p>G4, N3B, S3B</p>

References

- Environment and Climate Change Canada. 2020. Recovery Strategy for the Cerulean 5 Warbler (*Setophaga cerulea*) in Canada [Proposed]. Species at Risk Act Recovery 6 Strategy Series. Environment and Climate Change Canada, Ottawa. vii + 54 pp.
- Buehler, D.A., P.B. Hamel, and T. Boves. 2013. Cerulean Warbler (*Setophaga cerulea*), 1250 The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; 1251 Retrieved from the Birds of North America Online: 1252 <http://bna.birds.cornell.edu/bna/species/511>.
- Oliarnyk, C.J. and R.J. Robertson. 1996. Breeding behavior and reproductive success 1407 of Cerulean Warblers in southeastern Ontario. *Wilson Bulletin* 108: 673–684.

BLANDING’S TURTLE (*Emydiodea blandingii*)

Summary Table

Kingdom, Phylum, Class	<i>Anamalia, Chordata, Reptilia, Testudines, Emydidae</i>
Habitat Distribution	Blanding’s Turtles are found in Canada and in the United States. The species is most prevalent around the Great Lakes, but there are disjunct populations in New York, Massachusetts and Nova Scotia. Recently the species has been discovered as far north as Sudbury and the northern extant of the range has been questioned as occurrences are being discovered much farther north than previously recorded.
Home Range	Individuals have been observed nesting up to 6 km from their wetland of origin, with a mean distance of 0.9 km observed in Ontario and Quebec. The home range size and length of the Blanding’s Turtle vary greatly among individuals of a region and among different regions as well. Observed home range size in Ontario and Quebec averaged between 12 and 60 ha, with a maximum of 173 ha.
Critical Habitat (soils and vegetation)	<p>To protect themselves from freezing, Blanding’s Turtles overwinter in underwater sites from approximately October to April. Mating activity mainly occurs when turtles are aggregated in the vicinity of their overwintering site, they have also been observed mating during overwintering.</p> <p>The habitat occupancy criterion for the Blanding’s Turtle can be met under two circumstances; when a minimum of two Blanding’s Turtle individuals have been observed in any single year in the past 40 years (an indicator of site quality); or when a single individual has been observed in two or more years in the past 40 years (an indicator of site fidelity). Nesting habitat and overwintering habitat are considered critical for the Blanding’s turtle.</p>
Threats	The main threats to this species are transportation corridors (road and railway), changes to natural systems due to water management and dredging, exotic species, illegal collection, and predation. Recreation, agriculture and forestry are known to have an effect on the decline of this species. Road mortality alone is expected to reduce the mature individuals by 50% over the next 3 generations.
Identifiable features (temperature, weather, survey timing)	The Blanding’s turtle is semi aquatic and uses both terrestrial and aquatic habitats. The turtle has a smooth carapace, which is dark coloured and may have yellow

	flecks. The most notable characteristic of this turtle is the bright yellow chin and neck. This turtle seems to show little signs of aging and although size increases with age, there are few changes to the morphology as the turtle ages. This species has delayed sexual maturity and a low reproductive rate. Blanding’s turtles are known to reach as old as 120 years. The observed mating behaviour indicates polyandry.
Special Notes	Specially Protected Reptile under the Ontario Fish and Wildlife Conservation Act. Listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). G-RANK- G4, N-RANK – N3 S-RANK – S3

References

Ministry of the Environment, Conservation and Parks. 2019. Recovery Strategy for the Blanding’s Turtle (*Emydoidea blandingii*) in Ontario. Ontario Recovery Strategy Series. Prepared by the Ministry of the Environment, Conservation and Parks, Peterborough, Ontario. iv + 6 pp. + Appendix. Adoption of the Recovery Strategy for Blanding’s Turtle (*Emydoidea blandingii*), Great Lakes / St. Lawrence population, in Canada (Environment and Climate Change Canada 2018).

COSEWIC. 2016. COSEWIC assessment and status report on the Blanding’s Turtle *Emydoidea blandingii*, Nova Scotia population and Great Lakes/St. Lawrence population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 110 pp.

COSSARO. 2017. Ontario Species at Risk Evaluation Report for Blanding’s Turtle (*Emydoidea blandingii*) Committee on the Status of Species at Risk in Ontario (COSSARO). 16 pp

Natural Heritage Information Centre (NHIC). 2019. Provincially tracked species data. Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario. Accessed February 8, 2019.

EASTERN HOGNOSE SNAKE (*HETERODON PLATIRHINOS*)

Summary Table

Kingdom, Phylum, Class	<i>Anamalia, Chordata, Reptilia</i>
Habitat Distribution	From Florida and Texas in the south, to southern New England, Ontario and Minnesota in the north. It is found as far west as western Kansas. It is absent from the St. Lawrence drainage.
Home Range	Averages of 225, 141 and 80 ha for male, female and gravid females.
Critical Habitat (soils and vegetation)	Well-drained soil; a loose or sandy soil; open vegetative cover such as open woods, brushland or forest edge; proximity to water; and climatic conditions typical of the eastern deciduous forest biome.

Threats	Habitat loss, degradation and fragmentation, roads, persecution, collecting and contaminants. They are relatively slow moving and therefore, are more susceptible to road mortality.
Identifiable features (temperature, weather, survey timing)	On warm summer days the hognose may be found sun-bathing (temperature regulating) on rocks, woodland debris or floating on the water in open sunny areas.
Special Notes	Hognose snake habitat in Ontario is the northern most point of distribution in North America. The Eastern Hog-nosed Snake has an elaborate defensive display. When threatened, it will raise its head, flatten its neck in cobra-like fashion, gape its mouth and hiss loudly. It will strike forward at the perceived attacker with its mouth closed, but it rarely bites. It is not venomous. If the defensive behaviour does not drive off the attacker, the Eastern Hog-nosed Snake will writhe about, flip over on its back and play dead.

LEGALLY REGULATED HABITAT	
<p>In order to facilitate life processes including foraging, thermoregulation, mating and dispersal, it is recommended that, in areas of Ontario where Eastern Hog-nosed Snakes occur, areas of contiguous natural habitat including open areas (meadow, sand, beach and beach dunes, open forest, brushland, rock barrens), wetlands, forest and forest edge within five kilometres of sightings be prescribed as habitat in a habitat regulation.</p> <p>If sightings occur such that the outer edges of the two, five-kilometre circles around them are within 10 km of each other (i.e., two range-lengths), and connected suitable habitat exists between the sightings, it is recommended that the suitable habitat in the area between such sightings be prescribed in a habitat regulation. This is based on the high probability that individuals within the same region are part of an interbreeding population.</p> <p>If the area within the five kilometre radius as described above includes a road, the boundary for that area should be considered as the road where it crosses the area, with the exception as noted above where the road may not act as a complete barrier. Areas of high human use (e.g., First Beach at Wasaga Beach) should also be excluded from the regulation, unless within 100 m of hibernation or oviposition sites.</p> <p>For this recommendation, a sighting is defined as capture, telemetry location or observation of the species (including NHIC and local MNR data) and should include recently confirmed sightings (within the past 20 years) as well as sightings without a confirmed observation within the past 20 years (i.e., 1991-2010), but where the species is not considered extirpated.</p>	
Community classes identified under the land classification system for southern Ontario	
Meadow	
Sand	
Beach	

Beach Dunes	
Open Forest	
Brushland	
Rock Barrens	
Wetlands	
Forest edge	

References

Kraus, T. 2011. Recovery Strategy for the Eastern Hog-nosed Snake (*Heterodon platirhinos*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. i + 6 pp + Appendix vi + 24 pp.
Adoption of the Recovery Strategy for the Eastern Hog-nosed Snake (*Heterodon platirhinos*) in Canada (Seburn, 2009).

COMMON FIVE LINED SKINK (PLESTIODON FASCIATUS)

Summary Table

Kingdom, Phylum,	<i>Animalia, Chordata, Reptilia</i>
Habitat Distribution	Corresponds to the deciduous hardwood forests of eastern North America. The Carolinian population is limited to southwestern Ontario, close to the shorelines of Lakes Erie, Lake St Clair, and Lake Huron. The southern Shield population occurs along the southern edge of the Canadian Shield, from Georgian Bay in the west, to Leeds and Grenville County in the east.
Home Range	No meaningful data available.
Critical Habitat (soils and vegetation)	Rocky outcrops, stabilized sand dunes, riparian forests, open deciduous forests, and forest clearings.
Threats	Habitat loss, disturbance, illegal collecting, traffic mortality, increased predation.
Identifiable features (temperature, weather, survey timing)	Hibernate for approximately half of the year in Ontario. Emerge from hibernation in early April in the Carolinian population. Breeding occurs in the spring. 9-10 eggs, females remain for four to six weeks until they hatch in late summer. More than one female commonly nests under the same cover object.
Special Notes	The only lizard native to Ontario!

LEGALLY REGULATED HABITAT	
<p>A naturally occurring area that is being used, or was used at any time in the past three years, by a common five-lined skink (Carolinian population) as a nesting or hibernation site:</p> <ol style="list-style-type: none"> 1. The area within 30 metres of the area described in paragraph 2. An area other than a naturally occurring area being used by a common five-lined skink (Carolinian population) as a nesting site from the time it is used until the following August 31. 3. An area other than a naturally occurring area being used by a common five-lined skink (Carolinian population) as a hibernation site from the time it is used until the following May 31. 4. An area that is being used, or has been used at any time in the previous three years, by a common five-lined skink (Carolinian population) to carry on life processes other than nesting or hibernation. 5. If an area described in paragraph 1, 2, 3, 4 or 5 is located in an area belonging to a land classification described in subsection (3), the entire area so classified and any other contiguous areas, or areas connected by swamp or marsh, that also belong to a land classification described in subsection (3). 6. An area within 50 metres of an area described in paragraph 3, 4 or 5 if that area provides suitable conditions for a common five-lined skink (Carolinian population) to carry on its life processes. O. Reg. 122/12, s. 4. 	
Community classes identified under the land classification system for southern Ontario	
A beach/ bar	
A sand dune	
A sand barren	
A tallgrass prairie, savannah or woodland	
A forest	

References

Seburn, D.C. 2010. Recovery strategy for the Common Five-lined Skink (*Plestiodon fasciatus*) – Carolinian and Southern Shield populations in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. vi + 22 pp.

EASTERN WHIP- POOR-WILL (*ANTROSTOMUS VOCIFEROUS*)

Summary Table

Kingdom, Phylum, Class	<i>Animalia, Chordata, Aves</i>
Habitat Distribution	Saskatchewan to the Maritimes and south in the United States, from Oklahoma to Georgia. The wintering range stretches from coastal South Carolina through Florida and along the Gulf Coast of the United States into Mexico and Central America as far south as Honduras and Panama.
Home Range (breeding)	From east-central Saskatchewan, southern Manitoba, southern Ontario, southern Quebec, and

	sparse locations in New Brunswick, Nova Scotia, and Prince Edward Island.
Critical Habitat (nesting and foraging)	<p>Nesting- All these habitats exhibit characteristics such as well-drained soils, moderate tree cover and moderate to sparse shrub and herbaceous cover. Species usually being found at altitudes lower than 350 to 430 m.</p> <p>Foraging- prairies, wetlands with shrubs, regenerating clear-cuts, as well as agricultural fields and other habitats. Low tree cover and availability of foraging perches favor the localisation of prey (lunar light) as well as foraging efficiency.</p>
Threats	Reduced availability of insect prey, loss of insect producing habitats, pesticides and other toxins, insect/breeding temporal mismatch, agricultural expansion and intensification (wintering grounds and breeding grounds), urban expansion, energy development and mineral extraction, overgrazing of forest understory, habitat succession, climate change, fire suppression, forest management.
Identifiable features (temp, weather, survey timing)	Foraging activities typically take place within 500 m of the nest, often near forest edges. Foraging takes place at dawn (up to 40 minutes after sunrise) or dusk (from 30 minutes after sunset or until light remains available). They are nocturnal birds. Individuals are more often heard than seen, distinguished by their three-noted song “WHIP-poor-WEEL”, which is at the origin of the species’ name.
Special Notes	The Canadian breeding distribution occupies 20% of the global breeding distribution.

LEGALLY REGULATED HABITAT	
Components of habitat suitability	Biophysical Attributes
Regional context	Forests (e.g., deciduous, mixedwood, coniferous, treed wetlands) and open habitats (e.g., shrublands, fallow fields, regeneration following fires or clear-cuts, rock and sand outcrops; shrubby wetlands) form a mosaic
Habitats suitable for both nesting and foraging	<ul style="list-style-type: none"> • Forests with sparse to moderate tree cover or open habitats. • Sparse to moderate shrub and herbaceous cover. • Well-drained soils (e.g., sand, sandy-loam): Within an atlas square, includes all corresponding areas of 3 ha or more.

<p>Habitats suitable for nesting only [must be adjacent to foraging habitats]</p>	<ul style="list-style-type: none"> • Forests with a dense tree cover • Sparse to moderate shrub and herbaceous cover • Well-drained soils (e.g., sand, sandy-loam): Within an atlas square, includes all corresponding areas up to 30 m on the interior side of the forest edge.
<p>Habitats suitable for foraging only [must be adjacent to nesting habitats]</p>	<ul style="list-style-type: none"> • Forests with sparse tree cover or open habitats • Dense shrub cover • Soil drainage is deficient: Within an atlas square, includes all corresponding areas up to 1,250 m from the edge with suitable nesting habitat • Agricultural land with scattered shrubs or trees (e.g., hedgerows) that can be used as perches: Within an atlas square, includes all corresponding areas up to 1,250 m from the edge with suitable nesting habitat.

Community classes identified under the land classification system for southern Ontario

<p>Forests with sparse to moderate tree cover or open habitats.</p>	
<p>Sparse to moderate shrub and herbaceous cover.</p>	
<p>Well-drained soils (e.g., sand, sandy-loam). Within an atlas square, includes all corresponding areas of 3 ha or more.</p>	
<p>Forests with a dense tree cover.</p>	
<p>Sparse to moderate shrub and herbaceous cover.</p>	
<p>Well-drained soils (e.g., sand, sandy-loam). Within an atlas square, includes all corresponding areas up to 30 m on the interior side of the forest edge.</p>	
<p>Forests with sparse tree cover or open habitats.</p>	
<p>Dense shrub cover.</p>	
<p>Soil drainage is deficient. Within an atlas square, includes all corresponding areas up to 1,250 m from the edge with suitable nesting habitat.</p>	
<p>Agricultural land with scattered shrubs or trees (e.g., hedgerows) that can be used as perches. Within an atlas square, includes all corresponding areas up to 1,250 m from the edge with suitable nesting habitat.</p>	

References

Ministry of the Environment, Conservation and Parks. 2019. Recovery Strategy for the Eastern Whip-poor-will (*Antrostomus vociferus*) in Ontario. Ontario Recovery Strategy Series. Prepared by the Ministry of the Environment, Conservation and Parks, Peterborough, Ontario. iv + 6 pp. + Appendix. Adoption of the Recovery Strategy for Eastern Whip-poor-will (*Antrostomus vociferus*) in Canada (Environment and Climate Change Canada 2018).

WOOD THRUSH (*Hylocichla mustelina*)

Summary Table

Kingdom, Phylum, Class	<i>Anamaliom Chordata, Aves, Passeriformes</i>
Habitat Distribution	Neotropical species. Canadian populations in Ontario, Quebec, New Brunswick, Nova Scotia, over winters in Central America, southern Mexico to Panama. In Canada, the species mainly nests in mature Deciduous forests and mixed wood forests and with well developed understorey layers. Nesting typically occurs in American Beech and Sugar Maple.
Threats	Habitat loss in overwintering grounds, habitat loss and fragmentation in breeding grounds. Nest predation and cow-bird parasitism.
Identifiable features (temperature, weather, survey timing)	Slightly smaller than the American robin, adults are rusty brown with white underparts and large blackish spots on the breast and sides.
Special Notes	G-Rank – G5, N-Rank – N4B, S-rank – S4B

References

Government of Canada. Species at Risk Profiles: Wood Thrush. 2011. [Species Profile \(Wood Thrush\) - Species at Risk Public Registry \(canada.ca\)](#)

NORTHERN BOBWHITE (*Colinus virginianus*)

Summary Table

Kingdom, Phylum, Class	<i>Anamalia, Chordata, Aves, Galliformes</i>
Habitat Distribution	Southern Ontario, Canada, central eastern USA, Mexico and Cuba.
Home Range	This species is non-migratory. The home range for this species is small, about 30 hectares. Where poor habitat quality exists home ranges can increase. Within a day Northern Bobwhites typically travel less than 6 km, in rare occurrences have been observed travelling greater than 100 km. This species shows high fidelity to roosting sites, with coveys returning year after year.

Critical Habitat (soils and vegetation)	This species requires a mosaic of tall grass prairie-savannah, early to mid-successional forests and open lands such as agricultural fields. As this species spends most time on the ground, the mosaic of habitats is required to be near one another. A 400m radius around known coveys, brood, or single bird observation.
Threats	Larger farm operations that reduce the amount of tallgrass prairie in the province, wild pig predation, and habitat loss and destruction. Presence of pen-bred species.
Identifiable features (temperature, weather, survey timing)	Quail like bird. Males have a black necklace, white throat and white line above the eye, females have a buffy throat and eye stripe.
Special Notes	N-Rank – N1, G-rank – G4G5, S-rank- S1

References

COSEWIC. 2013. COSEWIC status appraisal summary on the Northern Bobwhite *Colinus virginianus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm).

Wyshynski, S.A. 2019. Recovery Strategy for the Northern Bobwhite (*Colinus virginianus*) in Ontario. Ontario Recovery Strategy Series. Prepared by the Ministry of the Environment, Conservation and Parks, Peterborough, Ontario. v + 11 pp. + Appendix. Adoption of the Recovery Strategy for (*Colinus virginianus*) in Canada (Environment Canada 2018).

APPENDIX II Natural Heritage Information Resource Results

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
809419	NATURAL AREA	PORT FRANKS WETLANDS AND FORESTED DUNES LIFE ANSI					17MH2885	
809419	PLANT COMMUNITY	Dry Black Oak - White Oak Tallgrass Woodland Type		S1			17MH2885	
809419	SPECIES		<i>Milesia virginiensis</i>				17MH2885	
809419	SPECIES	Northern Bobwhite	<i>Colinus virginianus</i>		END	END	17MH2885	
809419	SPECIES	Dusted Skipper	<i>Atrytonopsis hianna</i>				17MH2885	
809419	SPECIES	Pronghorn Clubtail	<i>Phanogomphus graslinellus</i>				17MH2885	
809419	SPECIES	Red-legged Spittlebug	<i>Prosapia ignipectus</i>				17MH2885	
809419	SPECIES	A Spittlebug	<i>Lepyronia gibbosa</i>				17MH2885	
809419	SPECIES	Painted Skimmer	<i>Libellula semifasciata</i>				17MH2885	
809419	SPECIES	Hairy Pinweed	<i>Lechea mucronata</i>				17MH2885	
809419	SPECIES	Queen Devil Hawkweed	<i>Hieracium gronovii</i>				17MH2885	
809419	SPECIES	Cucumber Tree	<i>Magnolia acuminata</i>		END	END	17MH2885	
809419	SPECIES	Sleepy Duskywing	<i>Erynnis brizo</i>				17MH2885	
809419	SPECIES	Eastern Flowering Dogwood	<i>Cornus florida</i>		END	END	17MH2885	
809419	SPECIES	Tawny Emperor	<i>Asterocampa clyton</i>				17MH2885	
809419	SPECIES	Dwarf Hackberry	<i>Celtis tenuifolia</i>		THR	THR	17MH2885	
809419	SPECIES	Round-fruited Panicgrass	<i>Dichanthelium sphaerocarpon</i>				17MH2885	
809419	SPECIES	False Tomentose Balsam Groundsel	<i>Packera paupercula</i> var. <i>pseudotomentosa</i>				17MH2885	

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
809419	SPECIES	Slender Knotweed	<i>Polygonum tenue</i>				17MH2885	
809419	SPECIES	Rough Blazing-star	<i>Liatris aspera</i>				17MH2885	
809419	SPECIES	Hairy Bedstraw	<i>Galium pilosum</i>				17MH2885	
809419	SPECIES	Great Lakes Sandreed	<i>Sporobolus rigidus</i> var. <i>magnus</i>				17MH2885	
809419	SPECIES	Golden Puccoon	<i>Lithospermum carolinense</i>				17MH2885	
809419	SPECIES	Slender Blazing-star	<i>Liatris cylindracea</i>				17MH2885	
809419	SPECIES	Sundial Lupine	<i>Lupinus perennis</i>				17MH2885	
809419	SPECIES	Midland Painted Turtle	<i>Chrysemys picta marginata</i>			SC	17MH2885	
809419	SPECIES	Prothonotary Warbler	<i>Protonotaria citrea</i>		END	END	17MH2885	
809419	SPECIES	Long-branched Frostweed	<i>Crocianthemum canadense</i>				17MH2885	
809419	SPECIES	Green Cornet Milkweed	<i>Asclepias viridiflora</i>				17MH2885	
809419	SPECIES	Piping Plover	<i>Charadrius melodus</i>		END	END	17MH2885	
809419	SPECIES	Dwarf Chinquapin Oak	<i>Quercus prinoides</i>				17MH2885	
809419	RESTRICTED SPECIES	Restricted Species	Restricted Species				17MH2885	
809419	NATURAL AREA	PORT FRANKS WETLANDS AND FORESTED DUNES					17MH2885	
809419	NATURAL AREA	Port Franks Forested Dunes					17MH2885	
809419	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony		SNR			17MH2885	

References

- Halloran, J, Anderson, H. and Tassie, D. 2013. Clean Equipment Protocol for Industry. Peterborough Stewardship Council and Ontario Invasive Plant Council. Peterborough, ON
- Kraus, T. 2011. Recovery Strategy for the Eastern Hog-nosed Snake (*Heterodon platirhinos*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. i + 6 pp + Appendix vi + 24 pp.
- Government of Ontario. 2007. Endangered Species Act. O. Reg. 242/08: General. Queen's Printer for Ontario. Online. O. Reg. 242/08: GENERAL (ontario.ca). Adoption of the Recovery Strategy for the Eastern Hog-nosed Snake (*Heterodon platirhinos*) in Canada (Seburn, 2009).
- Lee, H. & Bakowsky, Wasył & Riley, J. & Bowles, J. & Puddister, M. & Uhlig, P. & McMurray, S.. (1998). Ecological Land Classification for Southern Ontario: First Approximation and Its Application.
- Lebedyk, D. 2019. Southern Ontario Floral Inventory Analysis (SOFIA). Version 2.61. Essex Region Conservation Authority. Essex, ON.
- Natural Heritage Information Center. 2020. Make a map feature.
<https://geohub.lio.gov.on.ca/datasets/make-a-map-natural-heritage-areas>
- Ministry of the Environment, Conservation and Parks. 2019. Recovery Strategy for the Eastern Whip-poor-will (*Antrostomus vociferus*) in Ontario. Ontario Recovery Strategy Series. Prepared

by the Ministry of the Environment, Conservation and Parks, Peterborough, Ontario. iv + 6 pp. + Appendix. Adoption of the Recovery Strategy for Eastern Whip-poor-will (*Antrostomus vociferus*) in Canada (Environment and Climate Change Canada 2018).

Ontario Ministry of Natural Resources. 2013. Recovery Strategy for the Dwarf Hackberry (*Celtis tenuifolia*) in Ontario. Ontario Recovery Strategy Series. Ontario Ministry of Natural Resources, Peterborough, Ontario. iii + 5 pp + Appendix vi + 43 pp. Adoption of Recovery Strategy for Dwarf Hackberry (*Celtis tenuifolia*) in Canada (Parks Canada Agency 2011).

Seburn, D.C. 2010. Recovery strategy for the Common Five-lined Skink (*Plestiodon fasciatus*) – Carolinian and Southern Shield populations in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. vi + 22 pp.

Lambton Shores, 2015. Municipality of Lambton Shores, Official Plan 2015.

[Municipality of Lambton Shores](#)

Map Schedule A3 2019

[LambtonShores_OP_SchA3_CouncilApproved_AsModified_March_4_2019_FINAL.pdf](#)