

## APPENDIX G

### Wildlife Habitat Matrices and Habitat Descriptions for Rare Vascular Plants.

This appendix contains specific habitat descriptions for plant and animal (amphibians, reptiles, birds, mammals) species that occur in Ontario and which are most likely to be affected by changes in the landscape as a result of development pressures associated with the *Planning Act*. Those species that are known to only occur in Hill's Site Regions 1E, 2E And 3E have been excluded from these lists since there is very little likelihood that these species would be affected by *Planning Act* applications. The wildlife habitat matrices are intended to provide the user with some information about the plant and animal species that are likely to occur in a particular planning area and what habitat they are most likely to be found in. In addition, the tables identify those animal species that use many of the habitat categories identified as significant. These include seasonal concentrations of wildlife, specialized habitats for wildlife, habitat for species of conservation concern and animal movement corridors.

Appendix G is comprised of five tables. They are as follows:

Table G-1. Habitat descriptions for native Ontario amphibians.

Table G-2. Habitat descriptions for native Ontario reptiles.

Table G-3. Habitat descriptions for native Ontario birds.

Table G-4. Habitat descriptions for native Ontario mammals.

Table G-5. Habitat descriptions for rare, vascular plants that are tracked by the Ministry of Natural Resources Natural Heritage Information Centre.

#### **How to this appendix**

This appendix provides a summary of plant and animal distributions in Ontario by Hill's Site Regions and Districts; site descriptions for plant species<sup>1</sup> and habitat/habit descriptions for animals. The plant list is arranged alphabetically by family. The animal lists are listed phylogenically (in taxonomic order).

1. Determine what species may be in your planning area

By noting the Site Region or Site District location, the reader can quickly ascertain what species may occur in their area of study.

2. Consider what habitat features and therefore what species your planning area may support

General habitat features are recorded to the far right of each table. A slight variation between the plant and animal lists occurs in this part of the matrices. Many of the habitat features are described in the text of the Technical Guide or are self-explanatory. As an example, *thickets, second growth*, found in the animal matrices includes fencerows, early

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<sup>1</sup> Sources: Argus et al. 1987. Atlas of Rare Vascular Plants in Ontario.

succession growth of old fields and secondary growth as a result of a clear-cut operation or fire. A check mark under a column heading indicates that the corresponding species uses this habitat type during some part of its life.

### 3. Determine each species general habitat requirements and habits

Column two of the matrices provides a detailed description of habitat for each species. Particular habits of a species may also be described. The information provided here is limited because of space. A proponent would be expected to provide more detail on the habitat requirements and life history parameters for key species when preparing an Impact Assessment.

The animal matrices have four additional columns on the right-hand side of the table that indicate whether a species is colonial (birds) or concentrates seasonally; is a cavity user, is area sensitive and, if the species is provincially rare.

#### Seasonally Concentrated/Colonial

Many species congregate at a specific time of the year in very specific habitat. These habitats are used repetitively and animals are often very vulnerable at this time. Bats, some amphibians and reptiles hibernate in groups; waterfowl and many bird species migrate in large numbers during the spring and fall; deer concentrate in wintering yards; many bird species nest in colonies. Survival of these species depends on the continued availability of these areas.

#### Cavity User

Many species rely on cavities in trees, crevices in rocks and slopes and holes in the ground to nest, roost or hibernate. Many species use the same cavity year after year (traditional use). The loss of traditional sites can be detrimental to many species.

#### Area Sensitive

Some species require large areas of suitable habitat for long term population survival. Fragmentation of essential habitats can result in overall declines in populations.

#### Provincial Rarity

Staff from the Ontario Ministry of Natural Resources Natural Heritage Information Centre (NHIC) use a provincial ranking system to set protection priorities for rare species and natural communities. These rankings have been included in the first column for each of the tables in this appendix. Not recorded in these lists are those species that are not believed to be a native component of Ontario's flora or fauna (ranking code **SE**).

A species that is ranked as an S1, S2 or S3 is considered provincially rare.

## **Definitions of Provincial Ranking Codes Used by NHIC**

**S1 Extremely rare** in Ontario; usually 5 or fewer occurrences in the province or very few remaining individuals; often especially vulnerable to extirpation.

**S2 Very rare** in Ontario; usually between 5 and 20 occurrences in the province or with many individuals in fewer occurrences; often susceptible to extirpation.

**S3 Rare to uncommon** in Ontario; usually between 20 and 100 occurrences in the province; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.

**S4 Common** and apparently secure in Ontario; usually with more than 100 occurrences in the province.

**S5 Very Common** and demonstrably secure in Ontario.

In some cases NHIC goes one step further for birds by including a suffix to the ranking to indicate whether species is ranked according to its **breeding (B)** or **non-breeding (N)** status in Ontario.

**S#? Uncertain** (e.g. S1?) in Ontario. These species are thought to be rare in Ontario, but is insufficient information available to assign a more accurate rank.

**SU Unranked.**

**SH Historically** known from Ontario, but has not been recorded in the last 20 years. It is believed that suitable habitat is thought to still be present in the province. There is some expectation that a species with this ranking may be rediscovered in the province.

**SR Reported** for Ontario with less than convincing documentation to either accept or reject the report.

**SX** the species is apparently **extirpated** from Ontario with little chance of rediscovery. These species have not been seen for many decades even though searches of historic locations have been done.

Species recorded as Vulnerable, Threatened or Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or the Committee of the Status of Species at Risk in Ontario (COSSARO) or Ministry of Natural Resources (MNR) are marked accordingly with a V, T or E in small, capital letters after the scientific name of the species followed in parentheses by the designating authority. A note also is included when a species is protected by provincial legislation.

Significant Wildlife Habitat Technical Guide - Appendix G – Table 1  
 Table G - 1: Habitat descriptions for native Ontario amphibians.

Family Name Scientific Name Common Name NHC ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands, Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
AMBYSTOMATIDAE <i>Ambystoma jeffersonianum</i> Jefferson Salamander S2	damp shady deciduous forest, swamps, moist pasture, lakeshores; temporary woodland pools for breeding; hides under leaf litter, stones or in decomposing logs	6E(1); 7E(2,5)	✓	✓	✓				✓	✓	✓	✓		✓		✓	
AMBYSTOMATIDAE <i>Ambystoma laterale</i> Blue-spotted Salamander S4	moist woods in floodplains; ponds, sedge meadows, bogs, swamps or areas with semi-permanent water; occasionally in overgrown fields or in sandy soil; found under logs or other forest debris; home range size 250 m <sup>2</sup>	5E(11); 6E(9); 7E(1,2)	✓	✓	✓				✓	✓	✓	✓		✓			
AMBYSTOMATIDAE <i>Ambystoma maculatum</i> Spotted Salamander S4	prefers well-drained, upland deciduous, mixed forest adjacent to permanent or temporary pools; marshes, wet meadows, ponds, or streams; adults hide under stones, boards or fallen logs	3E; 3W; 4E; 5E; 6E; 7E	✓	✓	✓				✓	✓	✓	✓		✓			
AMBYSTOMATIDAE <i>Ambystoma texanum</i> <sup>(COSEWIC)</sup> Smallmouth Salamander S1	damp, hardwood forest; temporary ponds; in burrows; underneath forest debris	7E(1) Pelee Island	✓	✓					✓	✓	✓			✓		✓	
PLETHODONTIDAE <i>Desmognathus fuscus</i> Northern Dusky Salamander S1	riparian woodlands; cool running water, clear rocky streams with springy banks; seepage areas; hides under areas of moist debris	7E(3,5) (Niagara River Region)	✓		✓				✓			✓	✓			✓	
PLETHODONTIDAE <i>Eurycea bislineata</i> Northern Two-lined Salamander S4	wet coniferous, deciduous or mixed riparian habitats next to clear rocky brooks or streams; boggy areas near springs or seeps; wet woodlands or pasture; found under leaf litter or debris at water's edge; coarse sand or gravel banks; may congregate in winter in springs and cold-flowing streams and adjacent unfrozen soil; several females may use same nest site; home range size 14 m <sup>2</sup>	2E; 5E; 5E; 6E(10,11,12)	✓	✓	✓						✓	✓		✓			
PLETHODONTIDAE <i>Hemidactylum scutatum</i> Four-toed Salamander S4	wet deciduous, or coniferous woodlands with sphagnum moss; bogs, shallow marshes and fens; shallow woodland ponds	5E(4,7,8); 6E(9,10,12); 7E(2,3,4,5,6)	✓							✓	✓			✓			
PLETHODONTIDAE <i>Plethodon cinereus</i> Northern Redback Salamander S5	mixed, coniferous or deciduous forest; lives in decaying logs or stumps, or under stones, leaf litter and bark; bogs; derelict buildings or debris; avoids wet areas	3E; 3W; 4E; 4W; 5E; 6E; 7E						✓	✓	✓	✓						
PROTEIDAE <i>Necturus maculosus</i> Common Mudpuppy S4	rivers, lakes, bays; shallow waters under debris; completely aquatic; nocturnal; does not hibernate	4E; 4W; 5E; 6E; 7E	✓	✓													
SALAMANDRIDAE <i>Notophthalmus viridescens louisianensis</i> Central Newt S4?	ponds with abundant submerged vegetation; weedy sections of lakes, rivers and deep marshes; live under damp leaves, brush piles, logs or stumps in coniferous or deciduous forests; prefers beech-maple-hemlock woods or oak-pine woods	3W; 4W; 4S; 5S	✓	✓	✓			✓	✓	✓	✓			✓			
SALAMANDRIDAE <i>Notophthalmus viridescens viridescens</i> Red-spotted Newt S5	ponds with abundant submerged vegetation; weedy sections of lakes, rivers and deep marshes; live under damp leaves, brush piles, logs or stumps in coniferous, mixed or deciduous forests; adult is aquatic; home range size 270 m <sup>2</sup>	3W; 3S; 4E; 5E; 6E; 7E	✓	✓	✓			✓	✓	✓	✓			✓			
BUFONIDAE <i>Bufo americanus</i> American Toad S5	breeds in temporary or permanent, shallow woodland pools; lives anywhere with cover, damp soil and a food supply; adults remain in forest habitat, open or residential areas	All	✓	✓	✓		✓	✓	✓		✓			✓			
BUFONIDAE <i>Bufo fowleri</i> <sup>(COSEWIC)</sup> Fowler's Toad S2 (protected in Regulation under <i>Fish and Wildlife Conservation Act</i> )	restricted in Ontario to shores of Lake Erie; requires sandy soils for burrowing to escape sun; hibernates during winter in burrows >1m deep in sand; suitable areas are along shorelines, river valleys or beaches that provide adequate insect supply; requires shallow water for breeding	5E(7); 6E(1,7); 7E(1,2,5)	✓	✓	✓											✓	
HYLIDAE <i>Acris crepitans blanchardi</i> <sup>(COSEWIC)</sup> Blanchard's Cricket Frog SH (protected in Regulation under <i>Endangered Species Act</i> and <i>Fish and Wildlife Conservation Act</i> )	found in old fields, swamps, prairies; breeds in sluggish creeks, temporary pools; prefers permanent ponds, swamps; seldom found far from water; hibernate on land during winter	7E(1) Pelee Island	✓	✓	✓						✓			✓		✓	
HYLIDAE <i>Hyla chrysoscelis</i> Cope's Gray Treefrog SR	wetlands, deep marshes and swamps, ponds; woodlands near shallow water; adults are arboreal; found on moss or lichen; on trees or shrubs; in residential areas; this species reported for Ontario but without convincing documentation; are reported just west in Manitoba	5S (Rainy River area)	✓	✓	✓			✓	✓	✓				✓		✓	
HYLIDAE <i>Hyla versicolor</i> Tetraploid Gray Treefrog S5	migrates from forests to breeding areas; breeds in deep marshes and swamps, ponds; woodlands near shallow water; often found on moss or lichen on trees or shrubs	4E; 4W; 4S; 5E; 5S; 6E; 7E	✓	✓	✓		✓	✓	✓	✓				✓			
HYLIDAE <i>Pseudacris triseriata</i> Western Chorus Frog S5	roadside ditches or temporary ponds in fields; swamps or wet meadows; woodland or open country with cover and moisture; small ponds and temporary pools	5E(7,10,11); 6E; 7E	✓	✓	✓			✓	✓	✓	✓			✓			

Significant Wildlife Habitat Technical Guide - Appendix G – Table 1

Family Name Scientific Name Common Name NHC ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands / Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
HYLIDAE <i>Pseudacris crucifer</i> Spring Peeper S5	cool moist woods with ponds, streams or marshes; second growth woodlots or swamps; sphagnum bogs; lowlands near ponds or swamps with aquatic debris; riparian habitat; hibernates under moss or leaves; home range size 95 m <sup>2</sup>	2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E;	√	√	√			√	√	√	√			√			
HYLIDAE <i>Pseudacris maculata</i> Boreal Chorus Frog S5	swamps, marshes, ditches or temporary pools with a border of tangled vines and shrubs; sheltered sunny places	2W; 3E; 3W; 4W; 5S	√	√	√			√	√	√	√			√			
RANIDAE <i>Rana catesbeiana</i> Bullfrog S4	live in deep, permanent water with abundant emergent plants; requires stable water levels, particularly during winter hibernation and summer spawning periods	4E; 5E; 6E; 7E	√	√	√									√			√
RANIDAE <i>Rana clamitans</i> Green Frog S5	moist woodlands near water; riparian areas; requires permanent bodies of water; lake or pond shores, stream banks, edges of shallow permanent or semi-permanent fresh water; home range size 200 m <sup>2</sup>	2W; 3E; 3W; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√	√	√									√			
RANIDAE <i>Rana palustris</i> Pickerel Frog S4	requires cool water provided by groundwater seepage; permanent woodland lakes, ponds, bogs or streams, with shallow clear water and thick vegetation on borders; during summer can be found in wet pastures or fields in large concentrations; most selected habitats located within 100 m from standing water	4E; 5E; 6E; 7E	√	√	√	√					√	√		√			
RANIDAE <i>Rana pipiens</i> Northern Leopard Frog S5	wet sedge meadows, fields or forests; river floodplains; ponds, shallow marshes or weedy lake edges; during summer can be found in wet pastures or fields in large concentrations; most selected habitats located within 100 m from standing water	2W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√	√	√	√	√				√			√			
RANIDAE <i>Rana septentrionalis</i> Mink Frog S5	edges of lakes, ponds and streams; cold springs; open water with abundant lily pads; occasionally in bogs or marshes	2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√	√	√						√	√					
RANIDAE <i>Rana sylvatica</i> Wood Frog S5	moist coniferous woods; wooded areas with small ponds; swamps; upland hardwood forests; flooded meadows hibernates under moist debris or in flooded meadows; home range size 66 m <sup>2</sup>	All	√	√				√	√	√	√						

Significant Wildlife Habitat Technical Guide - Appendix G – Table 2  
 Table G - 2: Habitat descriptions for native Ontario reptiles<sup>1</sup>.

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands/ Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
CHELYDRIDAE <i>Chelydra serpentina</i> Snapping Turtle S5	permanent, semi-permanent fresh water; marshes, swamps or bogs; rivers and streams with soft muddy banks or bottoms; often uses soft soil or clean dry sand on south-facing slopes for nest sites; may nest at some distance from water; often hibernate together in groups in mud under water; home range size ~28 ha	4E; 5E; 6E; 7E	✓	✓	✓									(✓) <sup>2</sup>			
EMYDIDAE <i>Chrysemys picta bellii</i> Western Painted Turtle S4	quiet, warm, shallow water with abundant aquatic vegetation such as ponds, large pools, streams, ditches, swamps, marshy meadows; eggs are laid in sandy places, usually in a bank or hillside, or in fields; bask in groups; not territorial	3E; 3S; 4W; 4S; 5S	✓	✓	✓	✓					✓			(✓)			
EMYDIDAE <i>Chrysemys picta marginata</i> Midland Painted Turtle S5	quiet, warm, shallow water with abundant aquatic vegetation such as ponds, large pools, streams, ditches, swamps, marshy meadows; eggs are laid in sandy places, usually in a bank or hillside, or in fields; basks in groups; not territorial	4E; 5E; 6E; 7E	✓		✓						✓			(✓)			
EMYDIDAE <i>Clemmys guttata</i> <sup>(COSEWIC, COSSARO)</sup> Spotted Turtle S3 (protected in Regulation under Fish and Wildlife Conservation Act)	unpolluted, shallow bodies of water such as streams, ponds, wet meadows, marshes or swamps with aquatic vegetation, logs or clumps of vegetation for basking; nest is dug near water in fine-textured soil (e.g. sand) or moss; vulnerable to factors affecting water quality, vegetation composition and structure; average home range size 3.7 ha	5E;(7); 6E; 7E	✓	✓	✓						✓					✓	✓
EMYDIDAE <i>Clemmys insculpta</i> <sup>(COSEWIC, OMNR)</sup> Wood Turtle S2 (protected in Regulation under Fish and Wildlife Conservation Act)	slow-moving streams with sandy bottoms and woody edges; ponds, marshes, swamps; woodlands in floodplains; lives within 150m of stream shores; home range may be 5 to 25 ha, sometimes as much as 115 ha; riparian corridors important since this species is quite terrestrial	4E: 5E(4,9,10,11); 6E(1,2,6,9,10,11,12); 7E(2,3)	✓	✓	✓	✓			✓	✓						✓	✓
EMYDIDAE <i>Emydoidea blandingii</i> Blanding's Turtle S4	shallow water marshes, bogs, ponds or swamps, or coves in larger lakes with soft muddy bottoms and aquatic vegetation; basks on logs, stumps, or banks; surrounding natural habitat is important in summer as they frequently move from aquatic habitat to terrestrial habitats; hibernates in bogs; not readily observed	4E; 5E; 6E; 7E	✓	✓	✓						✓						
EMYDIDAE <i>Graptemys geographica</i> Common Map Turtle S4	large bodies of water with soft bottoms, and aquatic vegetation; basks on logs or rocks or on beaches and grassy edges, will bask in groups; uses soft soil or clean dry sand for nest sites; may nest at some distance from water; home range size is larger for females (about 70 ha) than males (about 30 ha) and includes hibernation, basking, nesting and feeding areas; aquatic corridors (e.g. stream) are required for movement; not readily observed	3E; 5E(4,7,12); 6E(6,10,13,15); 7E	✓	✓	✓						✓			(✓)			✓
KINOSTERNIDAE <i>Stemotherus odoratus</i> Common Musk Turtle S4	aquatic, except when laying eggs; shallow slow moving water of lakes, streams, marshes and ponds; hibernate in underwater mud, in banks or in muskrat lodges; eggs are laid in debris or under stumps or fallen logs at waters edge; often share nest sites, sometimes congregate at hibernation sites; not readily observed	5E(4,7,8,11); 6E; 7E	✓	✓	✓						✓			(✓)			
TRIONYCHIDAE <i>Apalone spinifer</i> <sup>(COSEWIC, COSSARO)</sup> Eastern Spiny Softshell S3 (protected in Regulation under Fish and Wildlife Conservation Act)	intolerant of pollution; large river systems, shallow lakes and ponds with muddy bottoms and aquatic vegetation; basks on sandbars, mud flats, grassy beaches, logs or rocks; eggs are laid near water on sandy beaches or gravel banks in areas with sun; requires acceptable feeding, nesting, habitat and natural, undisturbed corridors between these critical habitats	5E(12); 6E(15); 7E	✓	✓	✓						✓					✓	✓
SCINCIDAE <i>Eumeces fasciatus</i> <sup>(COSEWIC)</sup> Five-lined Skink S3 (protected in Regulation under Fish and Wildlife Conservation Act)	moderately dense or open deciduous or mixed woodlands with logs and slash piles; damp spots under logs, leaf litter, or sawdust; open talus slopes, barren rock; sandy beaches of Lake Erie, Lake Ontario; breeds in forest floor litter; lays, protects eggs under rocks, logs; forages in open woodlands, in sandy areas, along shores of lakes, and islands; hibernates under rock piles, in rock crevices, under logs and in stumps	5E(7,8,11); 6E(1,6,8,9,10,11); 7E(1,2)			✓			✓	✓	✓	✓		✓			✓	
COLUBRIDAE <i>Coluber constrictor flaviventris</i> <sup>(COSEWIC)</sup> Blue Racer S1 (protected in Regulation under Endangered Species Act)	abandoned fields, grassland, sparse brushy areas along prairie land, open woodland; hibernates in rock crevices in large numbers and with other species	7E(1) Pelee Island (mainland population of Point Pelee extirpated)				✓		✓		✓	✓			✓	✓	✓	
COLUBRIDAE <i>Diadophis punctatus</i> Ringneck Snake S4	moist shady woodlands with lots of cover; stony woodland pasture; shrubby old fields; under rocks, logs or debris and in stone walls or old junk piles; eggs are laid in or under logs or stones; several females may use the same nest	4E; 5E; 6E; 7E						✓	✓	✓	✓			✓	✓		
COLUBRIDAE <i>Elaphe obsoleta</i> <sup>(COSEWIC)</sup> Black Rat Snake S3	shrubby, old field, deciduous or mixed forests, thickets, field edges, rocky hillsides, river bottoms; talus slopes; uses talus slopes, unused wells or cisterns for hibernation; will hibernate in groups with other snakes	5E(11); 6E(10,11,15); 7E(1,2,3,5)	✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓
COLUBRIDAE <i>Elaphe gloydi</i> <sup>(COSEWIC)</sup> Eastern Fox Snake S3	shrub swamps and bogs; deciduous forest containing openings with shrubs and saplings; prefer woodland-marsh edges for hunting, breeding; in Lake Erie area, often seen near or adjacent to large marshes	5E(3,4,7,8); 6E(1,2,4,7,14); 7E(1,2,4)	✓		✓	✓		✓	✓	✓	✓			✓	✓		

Significant Wildlife Habitat Technical Guide - Appendix G – Table 2

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands / Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
COLUBRIDAE <i>Heterodon platirhinos</i> <sup>(COSEWIC, COSSARO)</sup> Eastern Hognose Snake S3 (protected in Regulation under Fish and Wildlife Conservation Act)	sandy upland fields, pastures, savannahs, sandy beaches; dry open oak-pine-maple forest with sandy soils; prefer forest areas > 5ha	4E; 5E(3,4,5,7,8); 6E(2,5,6,7,9);7E			✓	✓		✓	✓	✓	✓					✓	✓
COLUBRIDAE <i>Lampropeltis triangulum</i> Milk Snake S4	farmlands, meadows, hardwood or aspen stands; pine forest with brushy or woody cover; river bottoms or bog woods; hides under logs, stones, or boards or in outbuildings; often uses communal nest sites	5E(7, 11,12)6E; 7E	✓		✓	✓		✓	✓	✓	✓			✓			
COLUBRIDAE <i>Nerodia sipedon insularum</i> <sup>(COSEWIC)</sup> Lake Erie Water Snake S2 (protected in Regulation under Endangered Species Act)	inhabit shoreline except during hibernation; prefer shrub and tree line along beaches and rocky shores; hibernation occurs away from water in abandoned quarries, deserted cisterns or closer to water along rocky shore ledges; habitat destruction is main limiting factor	7E(1) Pelee Island		✓	✓											✓	
COLUBRIDAE <i>Nerodia sipedon sipedon</i> Northern Water Snake S5	near rivers, brooks, wet meadows, ponds, swamps, bogs or old quarries; around spillways and bridges; uses branches or logs overhanging water or emergent boulders for basking	4E; 5E; 6E; 7E	✓	✓	✓						✓			(✓)			
COLUBRIDAE <i>Regina septemvittata</i> <sup>(COSEWIC)</sup> Queen Snake S2	margins of streams with slow currents and gravel bottoms; shorelines with rocks and debris; old quarries; canals; aquatic habitat with overhanging trees, particularly willows	7E(1,2)	✓	✓	✓									✓		✓	
COLUBRIDAE <i>Storeria dekayi</i> Brown Snake S5	urban or rural areas; vacant lots or trash piles; parks or damp mixed or deciduous woods; swamps or wet meadows; clearings, cultivated lands, pastures or open fields; hides under stones, banks, logs, brush or leaf piles; hibernates in groups in ant hills or abandoned mammal burrows	5E(7,8,9,11); 6E(1,2,3,4,5,6,7,8,9,10); 7E	✓			✓	✓			✓	✓			✓	✓		
COLUBRIDAE <i>Storeria occipitomaculata</i> Redbelly Snake S5	moist woods and hillsides, woodlands with pine, oak-hickory, aspen or hemlock groves; occasionally in sphagnum bogs, shrubby swamps, marshes, and wet meadows; river valleys; debris and abandoned buildings	5E; 5S; 6E; 7E	✓		✓			✓	✓		✓				✓		
COLUBRIDAE <i>Thamnophis butleri</i> <sup>(COSEWIC)</sup> Butler's Garter Snake S2	wet meadows, pastures, margins of marshes and streams, and open country	7E(1,2)	✓		✓	✓	✓								✓	✓	
COLUBRIDAE <i>Thamnophis sauritus</i> Ribbon Snake S4	sunny grassy areas with low dense vegetation near bodies of shallow permanent quiet water; wet meadows, grassy marshes or sphagnum bogs; borders of ponds, lakes or streams; hibernates in groups	5E(7,8,11,12); 6E(2,5,7,8,9,10,11,14); 7E	✓	✓	✓	✓					✓			✓	✓		
COLUBRIDAE <i>Thamnophis sirtalis sirtalis</i> Eastern Garter Snake S5	moist areas, stream and swamp borders, bogs or marshes; wood edges or fencerows; vacant lots; hibernates in holes, crevices, anthills, mud, rotted wood, uprooted trees, or house foundations; hibernates in groups	All except 1E	✓	✓	✓	✓	✓	✓		✓	✓			✓	✓		
COLUBRIDAE <i>Thamnophis sirtalis parietalis</i> Red-sided Garter Snake S4?	near flowing water; tall grass; decaying leaves; hibernates in groups; known to travel several kilometres (3.5 km) to hibernation site	3S; 4S; 5S	✓	✓	✓	✓		✓			✓			✓	✓		
COLUBRIDAE <i>Liochlorophis vernalis</i> Smooth Green Snake S4	grassy open fields or meadows; open aspen stands; other hardwood stands; sphagnum bogs or marshes; found in vines, brambles; nest sites may be used by several females	4E; 5E; 6E; 7E	✓		✓	✓		✓			✓			✓	✓		
VIPERIDAE <i>Sistrurus catenatus</i> <sup>(COSEWIC, COSSARO)</sup> Eastern Massasauga Rattlesnake S3 (protected in Regulation under Fish and Wildlife Conservation Act)	use upland, old field in summer; marsh, shrub swamp or bog; rivers and streams that provide sedge or low vegetative growth; in fall and winter, hibernate underground in mammal burrows, under rotting stumps, in rock crevices	5E(2,3,4,7,8); 6E(2,4,5,6,9,14);7E(5)	✓	✓	✓	✓		✓		✓	✓				✓	✓	

<sup>1</sup> The Eastern Box Turtle, *Terrapene carolina*, and Slider, *Trachemys scripta* are not believed to be native components of Ontario's fauna and are therefore not included in this list.

<sup>2</sup> (✓) denotes that a species may or may not exhibit (1) a certain behaviour; or, (2) a particular habitat preference

Table G - 3: Habitat descriptions for native Ontario birds.

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands, Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Colonial	Cavity Nester	Provincially Rare	Area Sensitive
GAVIIDAE – Loons <i>Gavia immer</i> Common Loon S5B	large bodies of water with stable water levels and little human disturbance; freshwater lakes in open or densely-forested areas; shallow coves of larger lakes; deep marshes; need long stretches of water for take off	All except 7E	√	√	√												√
COLYMBIDAE – Grebes <i>Podilymbus podiceps</i> Pied-billed Grebe S4B	areas with open water, emergent aquatic vegetation; densely vegetated marshes or shrub-bordered swamps with open water; ponds with emergent shoreline vegetation; marshy inlets and bays of large lakes; each pair requires 1 to 3 ha of breeding territory; habitat loss is a serious threat to this species	All except 1E	√	√	√												
COLYMBIDAE – Grebes <i>Podiceps auritus</i> Horned Grebe S1S2B	deep water marshes or sloughs with a mix of open water, emergent vegetation; small freshwater ponds or protected bays of larger lakes with emergent vegetation; territories are about 1 ha, but birds are very territorial	1E; 7E	√	√	√												√
COLYMBIDAE – Grebes <i>Podiceps grisegena</i> Red-necked Grebe S3B	permanent freshwater lakes with a fringe of aquatic emergent vegetation; marshes, impoundments or sewage lagoons with > 4 ha of open water; protected marshy areas or bays in larger lakes; nest greatly affected by wave action of boats and other human disturbances	2E; 2W; 3E; 3W; 3S; 4E; 4S; 5E(1,2,3); 5S; 6E(5)	√	√	√												√
PELECANIDAE – Pelicans <i>Pelecanus erythrorhynchos</i> <sup>(EMNR)</sup> American White Pelican S3 (protected in Regulation under <i>Endangered Species Act</i> )	small, remote bedrock islands in freshwater permanent lakes; sparsely vegetated with grasses, nettles, shrubs, trees; intolerant of disturbance; colonial nester often with Double-crested Cormorants and Herring Gulls	5S			√									√			√
PHALACROCORACIDAE – Cormorants <i>Phalacrocorax auritus</i> Double-crested Cormorant S4B	undisturbed shores or islands of large lakes; sometimes smaller inland lakes; nests in colonies often with gulls and herons; returns to same nesting site	All except 1E; 2E	√	√										√			
ARDEIDAE – Herons, Bitterns <i>Botaurus lentiginosus</i> American Bittern S4B	marshes, wet meadows, swamps, bogs with tall marsh vegetation like cattails, bulrushes; slow-flowing rivers, streams with dense bordering vegetation and thickets of alder, willow; intolerant of human disturbance, loss of wetland habitat	All	√		√	(√)											√
ARDEIDAE – Herons, Bitterns <i>Ixobrychus exilis</i> <sup>(COSEWIC)</sup> Least Bittern S3B	deep marshes, swamps, bogs; marshy borders of lakes, ponds, streams, ditches; dense emergent vegetation of cattail, bulrush, sedge; nests in cattails; intolerant of loss of habitat and human disturbance	4S; 5E; 5S; 6E; 7E	√	√	√									(√)			√
ARDEIDAE – Herons, Bitterns <i>Ardea herodias</i> Great Blue Heron S5	wetlands, shores of ponds and lakes, marshes, standing trees in open water, swamps, including woodlots; require tall trees for nesting	All but 1E	√		√					√				√			
ARDEIDAE – Herons, Bitterns <i>Egretta alba</i> Great Egret S2	open swamp woods or willow thickets, offshore islands, mudflats for feeding; nests in standing trees in open water, thickets, sometimes low vegetation on islands or in rookeries of other herons and egrets	6E(1,2,3,4,5,6,14); 7E(1,2)	√	√	√									√			√
ARDEIDAE – Herons, Bitterns <i>Nycticorax nycticorax</i> Black-crowned Night Heron S3	wetlands with heavy cover, woodland pools, streams or rivers, brushy drainage ditches, streamside thickets, conifer plantations; commonly a solitary nester	4E; 5S; 5E; 6E; 7E	√		√					√				√			
ARDEIDAE – Herons, Bitterns <i>Nycticorax nycticorax</i> Black-crowned Night Heron S3	deciduous woodland swamps, cattail marshes, islands, wooded river and lake banks, coastal wetlands	5E(2,3,7,8,11); 6E; 7E	√		√									√			√
CATHARTIDAE – Vultures <i>Cathartes aura</i> Turkey Vulture S4	bottomland hardwood forests and thickets, rocky cliffs, various habitats, except heavy unbroken forest; roost in tall woods of live or dead trees with limbs >18 inches diameter; feed on carrion	3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√					√	√	√	√		√				
ANSERINAE – Geese <i>Branta canadensis</i> Canada Goose S5	open or forested areas near water; marshes, woody swamps; riparian habitat, shores of ponds, lakes or rivers; bogs and fens; generally nests <100m from water; strong nest site fidelity; there is concern for south James Bay and Atlantic populations of this species	All	√	√	√	√	√										
ANSERINAE – Geese <i>Branta bernicla</i> Brant S4N	tundra, braided river mouths, coastal areas with hummocks, near shallow ponds; nest on small islands in marshy pond areas in loose colonies or singly; often found with Eider Ducks; considered transients in southern Ontario	Great Lakes Region during migration; 1E in summer	√	√										√			
ANATINAE – Surface-feeding ducks <i>Aix sponsa</i> Wood Duck S5	mature wooded swamps, shallow wetlands with emergent vegetation and forested edges; open woodland near ponds or rivers; nest trees greater than 40 cm diameter (dbh); readily uses nest boxes	3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√	√	√				√	√							√
ANATINAE – Surface-feeding ducks <i>Anas strepera</i> Gadwall S4	open areas near water, large open marsh wetlands; nests in tall, dense vegetation; islands are preferred nesting locations, occasionally with colonies of gulls or terns; sometimes feed on grain stubble of fields	1E; 2E; 3E; 3W; 3S; 4S; 4W; 5E(2,3,5,7); 6E; 7E	√	√	√	√											
ANATINAE – Surface-feeding ducks <i>Anas americana</i> American Wigeon S4	uplands associated with water; also bogs, marshes or wet meadows; open coniferous woods; islands; open shallow water such as lakes and ponds; needs emergent vegetation, especially sedges; nests are 15-50 m from water but found as far as 400 m away	All	√	√	√												
ANATINAE – Surface-feeding ducks <i>Anas rubripes</i> American Black Duck S4	forested shallow wetlands, marshes or swamps; woodland lakes or streams; mixed wood forests; islands; marshy borders of lakes and rivers; nest sometimes some distance from water; decrease in population most severe in southern portion of province	All	√	√	√	√				√							
ANATINAE – Surface-feeding ducks <i>Anas platyrhynchos</i> Mallard S5	shallow wetlands, edges of marshes, grassy wet meadows, islands, small ponds or lakes, rivers or streams; nests may be considerable distance from water	All	√	√	√	√	√										



Significant Wildlife Habitat Technical Guide - Appendix G – Table G-3

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands / Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Colonial	Cavity Nester	Provincially Rare	Area Sensitive
ANATINAE - Surface-feeding ducks <i>Anas discors</i> Blue-winged Teal S5	shallow open wetlands, ponds or lakes; margins of rivers; marshes near grasslands or open woodland; hillside thickets	All	√	√	√	√		√									
ANATINAE - Surface-feeding ducks <i>Anas clypeata</i> Northern Shoveler S3S4	short grassy areas such as meadows or hay fields, close to open water with lots of aquatic vegetation; marshes, sloughs; nests typically 20-60 m from water but may be up to 1.6 km away; migrate in small flocks	1E; 2E; 3E; 4E; 4W; 5E(2,4,5,9); 6E; 7E	√	√	√	√											
ANATINAE - Surface-feeding ducks <i>Anas acuta</i> Northern Pintail S5	shallow marshes, swamps or ponds; tundra; meadows near water; islands; open country with low, sparse vegetation; maximum distance of nest from open water in Ontario 90-100 m but averages 40 m; frequently feeds on grain stubble	All except 4S	√		√												√
ANATINAE - Surface-feeding ducks <i>Anas crecca</i> Green-winged Teal S4	marshes, rivers, lakes or ponds, shorelines; nests in upland areas, dense stands of grass or brush from 36-100 m from wetland edge; nest occasionally found far from water	All	√	√	√												
AYTHYINAE - Diving ducks <i>Aythya valisineria</i> Canvasback S1	large marshes for nesting; prefer deep, permanent water-bodies for feeding and courtship	3S;6E(5);7E(1)	√	√												√	√
AYTHYINAE - Diving ducks <i>Aythya americana</i> Redhead S2	shallow cattail/bulrush marshes, lakes and ponds and fens; preferred nesting usually close to shallow water (most within 2 m), but can be found as far as 266 m from water's edge	3S; 5E(4,5); 6E;7E(1,2)	√	√												√	√
AYTHYINAE - Diving ducks <i>Aythya collaris</i> Ring-necked Duck S4	small (<4 ha) wetlands with some surrounding woody vegetation, often in heavily forest areas; shallow swamps, marshes and bogs with emergent vegetation; near reedy lakes or rivers; during migration also rivers, larger lakes, ponds with marshy edges	2E; 2W; 3E; 3S; 3W; 4E; 4S; 4W; 5E; 5S; 6E	√	√	√												
AYTHYINAE - Diving ducks <i>Aythya affinis</i> Lesser Scaup S4	tundra ponds, inland boreal wetlands; Great Lakes inland marshes; open grassy areas near water with little emergent vegetation	1E; 2E;2W;3E;3W;4E;4S; 5S;6E(1,2,3,4,5,6,11,12,13,14,15); 7E(2,3,6,15)	√	√	√												
AYTHYINAE - Diving ducks <i>Bucephala albeola</i> Bufflehead S3B	forested lakes, ponds; sheltered bays of rivers and lakes during migration; nests in tree cavities and will use nest boxes	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4S; 5E(1); 5S	√	√	√					√					√	√	
AYTHYINAE - Diving ducks <i>Bucephala clangula</i> Common Goldeneye S5	wetlands, rivers or lakes with deep (~2 m) water; open lakes with nearby woodlands and marshy edges; bulrush in water 1m deep; breeding distribution depends on availability of trees >30 cm diameter (dbh)	1E; 2E; 2W; 3E; 3S; 3W; 4E; 4S; 4W; 5E	√	√	√				√	√					√		√
MERGINAE - Mergansers <i>Mergus merganser</i> Common Merganser S5	clear, freshwater ponds, lakes, and rivers with forested edges; riverine wetlands; clear water is preferred and is probably necessary for feeding; nests in tree cavities and snags, but may use crevices in cliffs or nest on ground; trees must be >50 cm diameter (dbh); nests <200 m from water; feed on fish	All	√	√	√				√	√			√		√		√
MERGINAE - Mergansers <i>Lophodytes cucullatus</i> Hooded Merganser S7	woodland ponds and river; remote waterways; nests in tree cavities at edge or over water; trees must be >38 cm diameter (dbh); nests <50m from water; feed on fish, invertebrates	All but 1E	√	√	√				√	√					√		
MERGINAE - Mergansers <i>Mergus serrator</i> Red-breasted Merganser S5	lakes, ponds, rivers or streams in forested areas, large deep swamps, rocky islands with shrubby growth or lake and river shorelines; nests on the ground under dense shrubbery, rocks or driftwood <50 m to water	All except 6E(12)	√	√													√
ERISMATURINAE - Ruddy, masked ducks <i>Oxyura jamaicensis</i> Ruddy Duck S2	open habitat near wetlands with emergent vegetation; nest situated above shallow water in reeds, cattails, sedges; somewhat colonial; returns to same place to nest year after year	4E; 5E(4,5,11); 5S; 6E(1,7,8,10,11,12,13); 7E(1,2,5,6)	√				√							(√)		√	
PANDIONIDAE - Ospreys <i>Pandion haliaetus</i> Osprey S4B	associated with lakes, rivers; nests in trees near water's edge or over water; will use artificial structure; may nest in small, loose colonies	All	√	√										(√)			
BUTEONINAE (in part) - Eagles <i>Haliaeetus leucocephalus</i> <sup>(FIMNR)</sup> Bald Eagle S3B (protected in Regulation under <i>Endangered Species Act</i> )	require large continuous area of deciduous or mixed woods around large lakes, rivers; require area of 255 ha for nesting, shelter, feeding, roosting; prefer open woods with 30 to 50% canopy cover; nest in tall trees 50 to 200 m from shore; require tall, dead, partially dead trees within 400 m of nest for perching; sensitive to toxic chemicals	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E(1,2,3,7); 5S; 7E(1)		√					√	√						√	√
CIRCINAE - Harriers <i>Circus cyaneus</i> Northern Harrier S4B	open country with herbaceous or low woody vegetation for nesting; open agricultural fields; wetlands (marshes, bogs); fresh, saltwater marshes; wet meadows; each pair requires at least 640 ha of foraging area; prefers areas > 30 ha; loss of grassland, wetland area is a threat to this species	All	√			√											√
ACCIPITRINAE - Accipiters <i>Accipiter striatus</i> Sharp-shinned Hawk S4B	dense, coniferous or mixed forests; usually near a lake or river; sometimes wet forest; uses more open areas like forest edges or forest clearings for hunting; requires minimum of 4 ha of dense (>80%) canopy closure for nesting; forests >30 ha appear to be preferred	All	√	√					√	√							√
ACCIPITRINAE - Accipiters <i>Accipiter cooperii</i> Cooper's Hawk S4B	dense, extensive mixed or deciduous forests, preferably in Carolinian forest zone; usually near pools of water or streams; woodlots interspersed with open fields; floodplain forests and wooded swamps; will nest near human activity where habitat and food are available; nesting territory must be at least 6 ha with 60 to 70% canopy closure; hunting territory extends over 3 to 5 km <sup>2</sup> ; requires minimum of 10 to 15 ha of habitat, but prefers forests > 50 ha	3E;3W;3S;4E;4S;5E;5S; 6E;7E	√						√								√

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ACCIPITRINAE - Accipiters <i>Accipiter gentilis</i> Northern Goshawk S4B	extensive, deciduous, coniferous or mixed mature or old growth forest with variety of shrubs, understory trees; usually near water; each pair requires 10 to 20 km <sup>2</sup> of suitable hunting habitat; a minimum of 12 ha of mature to old growth / mature woods is required for nesting; seldom found in forests < 100 ha	All	✓	✓					✓			✓					✓
BUTEONINAE (in part) - Buteos <i>Buteo lineatus</i> <sup>(COSEWIC, COSSARO)</sup> Red-shouldered Hawk S4B	moist, mature hardwood forests; woody swamps or wooded margins of marshes; wet bottomlands; restricted to mature, closed (>80%) closed forests; nests reused; requires a minimum of 10 ha of continuous forest to meet territorial requirements; prefers >100 ha of forest; tends to nest in interior	3E;4E;5E;6E;7E	✓						✓								✓
BUTEONINAE (in part) - Buteos <i>Buteo platypterus</i> Broad-winged Hawk S5B	nest in dense, extensive forests deciduous or mixed forests but rarely in coniferous; birch/aspens preferred over maple; nests near water or forest edges; home range is as much as 2.5 km <sup>2</sup> ; prefers forest >100 ha	All except 1E	✓		✓			✓	✓	✓							✓
BUTEONINAE (in part) - Buteos <i>Buteo jamaicensis</i> Red-tailed Hawk S5B	dry, deciduous, coniferous or mixed woodlands or hedgerows near open country such as meadows, agricultural lands, brushy pastures; open bogs or swampy areas; isolated trees in fields; needs large trees for nesting and perching	All				✓		✓	✓	✓							
BUTEONINAE (in part) - Eagles <i>Aquila chrysaetos</i> <sup>(IMPE)</sup> Golden Eagle S1B (protected in Regulation under <i>Endangered Species Act</i> )	wild, arid plateaus, deeply cut by streams and canyons or sparsely treed slopes and rock crags	1E; possibly 4E		✓									✓				✓
FALCONINAE - Falcons <i>Falco sparverius</i> American Kestrel S4N	open country or grasslands with scattered trees; needs low vegetation and elevated perches; forest edges; scarce in boreal forest; require trees >30 cm in diameter (dbh) or snags	All				✓				✓							✓
FALCONINAE - Falcons <i>Falco columbarius</i> Merlin S4B	open forest or heavy timber; mixed woods and plantations; marshes or bogs; cliffs; needs nearby open country such as grassland, old fields or pastures for hunting; nests on ledge, tree cavities or old nest of other birds; requires dead or live trees > 30 dbh; may nest in cities	All but 7E				✓	✓	✓	✓	✓			✓		(✓)		
FALCONINAE - Falcons <i>Falco peregrinus</i> <sup>(IMPE, T)(COSEWIC)</sup> Peregrine Falcon S2B (protected in Regulation under <i>Endangered Species Act</i> )	rock cliffs, crags, especially situated near water; tall buildings in urban centres; threatened by chemical contamination; reintroduction efforts have been attempted in numerous locations throughout Ontario	5E(11)		✓									✓				✓
TETRAONIDAE - Grouse <i>Bonasa umbellus</i> Ruffed Grouse S5	dry, deciduous forests with dense woody overhead cover, herbaceous ground cover; prefers second growth stands of poplar; requires sunny, open areas; uses fallen logs for drumming and cover for nesting	All						✓		✓	✓						
TETRAONIDAE - Grouse <i>Dendragapus canadensis</i> Spruce Grouse S5	dense stands of conifers, young jack pine, upland black spruce forests on stream borders; tamarack swamps, cedar bogs; muskegs; nests on ground under woody debris	All except 6E; 7E							✓	✓	✓						
TETRAONIDAE - Grouse <i>Tympanuchus phasianellus</i> Sharp-tailed Grouse S4	wet meadows, bogs, fens, muskegs or open fields with shrubs and scattered trees; grasslands and shrubby areas on limestone plains; logged or burned-over areas; open habitat in extensive forest should be at least 2.5 km <sup>2</sup>	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4S; 5E(1,2,3,4); 5S	✓			✓	✓										✓
MELEAGRIDIDAE - Turkeys <i>Meleagris gallopavo</i> Wild Turkey S3S4	large variety of successional stages, mix of trees and grasses, spring seeps, south facing slopes, timbered corridors; grassy areas; reintroduced over much of its historical range	5E(11,12); 6E(1,5,7,9,10,11,12,15); 7E(2,6)				✓		✓	✓	✓	✓	✓					
PHASIANIDAE - Partridges, quails, pheasants <i>Colinus virginianus</i> <sup>(COSEWIC)</sup> Northern Bobwhite S1S2	grassland, prairie or hay fields with woody cover in form of thickets, tangles of vines, shrubs; fence rows or woodland edges; cropland growing corn, soybeans or small grains and clover or grass; well-drained sandy or loamy soil; pond edges	6E(1, 15); 7E				✓		✓		✓							✓
RALLIDAE - Rails, gallinules, coots <i>Coturnicops noveboracensis</i> <sup>(COSEWIC)</sup> Yellow Rail S3S4B	large, freshwater or brackish grass and sedge marshes with dense vegetation including bulrushes, horsetails, grasses; loss of wintering habitat and southern wetlands is limiting to this species	1E; 2E; 2W; 5E(1,2); 5S; 6E(6,11,12,13)	✓														✓
RALLIDAE - Rails, gallinules, coots <i>Rallus elegans</i> <sup>(COSEWIC)</sup> King Rail S2B	large, shallow, fresh water marshes, shrubby swamps, marshy borders of lakes and ponds with abundant vegetation; an 'edge' species; territories are 0.3 to 0.5 ha; loss of large marshes in the south is limiting to this species	6E(6,9,13); 7E(1,2)	✓		✓												✓
RALLIDAE - Rails, gallinules, coots <i>Rallus limicola</i> Virginia Rail S4B	freshwater, shallow marshes, sloughs or roadside ditches with a mix of open water; emergent vegetation (sedges, cattails); wetlands and ponds, lakes with sedge and cattail edge; fluctuating water levels are a threat to nests; territories are from 0.25 to 1 ha in size	3E; 3W; 3S; 4E; 4W; 4S; 5E; 6E; 7E	✓	✓	✓												
RALLIDAE - Rails, gallinules, coots <i>Porzana carolina</i> Sora S4B	densely vegetated marshy habitats; cattail, grassy marshes, bogs, fens, swamps, wet grassy meadows; ponds with abundant aquatic emergent vegetation; prefers areas of deep mud and water; rising and lowering water levels are a threat to nests; loss of wetland habitat is a threat to species	All	✓	✓	✓												
RALLIDAE - Rails, gallinules, coots <i>Gallinula chloropus</i> Common Moorhen S4B	deep, freshwater marshes with sheltered pools, channels; emergent vegetation growing in water >0.3 m deep; sewage lagoons, impoundments; any body of deep water with emergent vegetation	5E(7,8,9,10,11); 6E; 7E	✓	✓													

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-3

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands / Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Colonial	Cavity Nester	Provincially Rare	Area Sensitive
RALLIDAE - Rails <i>Fulca americana</i> American Coot S3S4	reed marshes with permanent water and tall emergent vegetation; needs deep open water; cattail marshes; near lakes or ponds; more or less colonial nester; territories small (0.3 ha) in productive habitat; limited by shortage of habitat	3S; 3W; 4E; 4W; 5E(1,2,3,4,5); 5S; 6E; 7E	√	√									(√)				√
GRUIDAE - Cranes <i>Grus canadensis</i> Sandhill Crane S4B	large, secluded wetlands of low shrub bogs, cattail marshes, fens; peaty wetlands with sphagnum, cattails, sedges; uses upland meadows for feeding; prefer wetlands >40 ha in size; sensitive to disturbances during nesting period	1E; 2E; 2W; 3E; 3W; 3S; 4E; 5E; 5S; 7E(1)	√			√											√
CHARADRIIDAE - Plovers, turnstones <i>Charadrius melodus</i> <sup>(COSEWIC, IRR)</sup> Piping Plover S1B (protected in Regulation under <i>Endangered Species Act</i> )	dry, sandy outer beaches; upper stretches near dunes, usually large open, grassless areas, but sometimes with sparse scattering of beach grass; recreational uses of beaches results in habitat loss	5E(7); 5S			√	√											√
CHARADRIIDAE - Plovers, turnstones <i>Charadrius vociferus</i> Killdeer S5B	open areas such as grazed meadows, pastures, woodland clearings, lawns, golf courses, cemeteries, cultivated fields; waste places; lakeshores or edges of ponds, orchards, airports, gravel roofs	All		√	√	√	√										
SCOLOPACIDAE - Sandpipers etc. <i>Tringa melanoleuca</i> Greater Yellowlegs S4B	fens, bogs, sloughs, shallow ponds surrounded or interspersed with tree, shrub cover	1E; 2E; 2W; 3E; 3W; 3S	√	√	√												
SCOLOPACIDAE - Sandpipers etc. <i>Tringa solitaria</i> Solitary Sandpiper S4B	open, wet northern coniferous forest woodlands; wetlands; ponds; lakes; nests in abandoned bird nests in trees	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E(1,2,4,5)	√	√													
SCOLOPACIDAE - Sandpipers etc. <i>Actitis macularia</i> Spotted Sandpiper S5B	variety of habitat types near water; often forages on floating logs	All	√	√	√	√	√			√							
SCOLOPACIDAE - Sandpipers etc. <i>Bartramia longicauda</i> Upland Sandpiper S4B	open pastures, fields of alfalfa, clover, hayfields; forest clearings; extensive, dry, old grassy fields with little to no shrubs or trees; requires tracts of grassland 25-50 ha	3W; 4E; 4W; 4S; 5E; 5S; 6E; 7E				√											√
SCOLOPACIDAE - Sandpipers etc. <i>Limosa fedoa</i> Marbled Godwit S3	wetlands, sloughs, lakes or ponds with grassy edges; feed largely on insects; protection of coastal marshes is important	1E; 2E; 5S	√	√	√	√											√
SCOLOPACIDAE - Sandpipers etc. <i>Gallinago gallinago</i> Common Snipe S5B	large, open marshes, fens, peatlands, bogs or wet meadows with short vegetation; alder, willow swamps, thickets on pond, lake, river edges; brook and river lowlands with moist, soft organic soil and low sparse vegetation	All	√	√	√	√		√									
SCOLOPACIDAE - Sandpipers etc. <i>Scolopax minor</i> American Woodcock S5B	moist, early succession woodland; prefers aspen, alder, birch; open, grassy clearings; forest edges; swamps, bogs, streambanks; require two territories - dry, open upland singing grounds and moist, wooded areas for nesting and feeding	All except 1E; 2W	√		√			√		√	√						
PHALAROPODIDAE - Phalaropes <i>Phalaropus tricolor</i> Wilson's Phalarope S3B	open wetlands, ponds, lakes, marshes and sloughs with wet meadow vegetation; freshwater coastal marshes; nests on ground in loose colonies; sewage lagoons with grassy edges; feeds on land and aquatic insects; may nest in loose colonies where nests are 9 to 12m apart	2E; 2W; 4E; 5E(1,2,3,4,11); 5S; 6E; 7E	√	√	√								(√)				√
LARINAE - Gulls <i>Larus minutus</i> Little Gull S1S2	predominantly marshes, occasionally on islands; inland marshes and marshy border lakes; nests on floating to semi-floating mats	1E; 2E; 5E(7); 6E(2,3,4,13,14) 7E(1,2,3,4)	√	√										√			√
LARINAE - Gulls <i>Larus philadelphia</i> Bonaparte's Gull S4	nests in coniferous trees (preferably spruce-fir) near muskegs, swamps, ponds or lakes; frequent lakes, rivers, marshes, coastal bays, harbours; sand bars and mud flats; feeds on fish or scavenges	1E; 2E; 2W; 3E; 3S; 3W; 4E	√	√					√					√			
LARINAE - Gulls <i>Larus delawarensis</i> Ring-billed Gull S5	small, partly vegetated islands, dykes, breakwaters, sewage lagoons, garbage dumps, lakes, rivers, open beaches, mudflats, harbours; nests in colonies on islands in lakes, rivers	All	√	√	√		√							√			
LARINAE - Gulls <i>Larus argentatus</i> Herring Gull S5	undisturbed open, rocky islands, peninsulas or cliffs along lakes or rivers; also on sand dunes or headlands with various types of shores and islands	All	√	√	√		√						√	√			
LARINAE - Gulls <i>Larus marinus</i> Great Black-backed Gull S2	flat rocky coastal islands, moorlands, rocky beaches, cliffs; nest is solitary or in small (rarely large) colonies	5E(2,5); 6E(2,3,4,10,13,14,15); 7E(2,3,4)	√	√	√								√	(√)			√
STERNINAE - Terns <i>Sterna caspia</i> <sup>(COSEWIC)</sup> Caspian Tern S3	open habitat near large lakes or rivers, beaches, shorelines, rocky or sandy beaches, offshore islands; negatively affected by elevated water levels during nesting season; feeds on fish; found in association with Ring-billed Gulls	1E; 2E; 5E(1,2,3,4,5,7); 5S; 6E(2,3,4,6,8,9,10,13,14,15); 7E(1,2,3,4)	√	√	√									√			√
STERNINAE - Terns <i>Sterna hirundo</i> Common Tern S4	sandy and gravelly beaches or shores; small sparsely vegetated islands in larger bodies of water; occasionally grassy uplands; forage along lakeshores and large rivers	All	√	√	√									√			
STERNINAE - Terns <i>Sterna forsteri</i> Forster's Tern S3	large open and fresh or saltwater marshes, deep cattail marshes; must be near open water; marsh nesting restricts breeding distribution; eats insects as well as fish; seldom uses marshes <300 ha	3S; 4S; 5S; 7E(1,2)	√	√										√		√	√

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STERNINAE - Terns <i>Chlidonias niger</i> <sup>(COSSARO)</sup> Black Tern S3	wetlands, coastal or inland marshes; large cattail marshes, marshy edges of rivers, lakes or ponds, wet open fens, wet meadows; returns to same area to nest each year in loose colonies; must have shallow (0.5 to 1 m deep) water and areas of open water near nests; requires marshes >20 ha in size; feeds over adjacent grasslands for insects; also feeds on fish, crayfish and frogs	All except 1E	✓	✓	✓	✓							✓			✓	✓
COLUMBIDAE - Pigeons, doves <i>Zenaidura macroura</i> Mourning Dove S5	open, mature coniferous mixed woodlands interspersed with open areas, agricultural fields; edges, woodlots and shelterbelts; evergreen plantations or orchards; urban areas; open woodland with bare ground that produces enough food	2E; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E					✓	✓		✓							
CUCULIDAE - Cuckoos, anis etc. <i>Coccyzus erythrophthalmus</i> Black-billed Cuckoo S4B	dense, shrubby deciduous vegetation of low to medium height, interspersed with clearings; brushy pasture; shrubby hedgerows at field edges; dry open upland woods; overgrown old fields with hawthorn; swamps	2E; 3E; 3W; 4E; 4W; 4S; 5E; 5S; 6E; 7E	✓							✓							
CUCULIDAE - Cuckoos, anis etc. <i>Coccyzus americanus</i> Yellow-billed Cuckoo S4B	Carolinian, Great Lakes- St. Lawrence forest zones; open woodlands with dense, shrubby undergrowth; scrub-land with small trees; orchards; parkland; edges of agricultural areas; overgrown, weedy fields; streambanks with dense thickets	5E(1,2,3,4,5,7); 6E; 7E				✓	✓	✓		✓	✓						
TYTONIDAE - Barn -owls <i>Tyto alba</i> <sup>(COSEWIC, TRMPS)</sup> Barn Owl S1	open areas such as fields, agricultural lands with scattered woodlots, buildings and/or orchards; grasslands, sedge meadows, marshes; snow-cover limits ability to catch prey; species has intolerance to severe cold; nests in hollow trees and live trees >46 cm dbh; also nests in barns, abandoned buildings	6E(9); 7E(3,5)	✓			✓							✓		✓	✓	
STRIGIDAE - Owls <i>Otus asio</i> Eastern Screech Owl S5	open woodland, orchards or shade trees in urban areas; small woodlots; prefers mature deciduous trees; requires trees > 30 cm dbh for nesting and roosting; confined largely to southern Ontario as a breeding bird; small woodlots are acceptable if scattered trees are available over several hectares	4E; 5E(1,2,3,7,8,9,11,12); 6E; 7E	✓				✓		✓	✓					✓		
STRIGIDAE - Owls <i>Bubo virginianus</i> Great Horned Owl S5	deep, deciduous, mixed or coniferous forests or large woodlots; mixed forests and fields; swamps; woodlands near large streams or pond; near dumps; feeds in open areas like fields or pastures	All	✓			✓		✓	✓	✓							
STRIGIDAE - Owls <i>Surnia ulula</i> Northern Hawk Owl S3S4	open, coniferous or mixed woods with clearings; forest edges; swamps or muskegs; dense bushy areas; burned woodland with standing stumps; diurnal habits; nests in old woodpecker holes	1E; 2E; 2W; 3E; 3S	✓						✓	✓					✓		
STRIGIDAE - Owls <i>Strix varia</i> Barred Owl S4	coniferous or mixed woodlands with little understory and relatively closed canopy; dense moist forest, particularly near stream, river or lake; heavily wooded swamps; often near open area or clearing for hunting; requires trees with diameter >50 cm, with cavities for nesting; has home range of 10-250 ha; needs large 100 - 400 ha forests	All but 1E	✓	✓					✓						✓		✓
STRIGIDAE - Owls <i>Strix nebulosa</i> <sup>(COSSARO)</sup> Great Gray Owl S3S4	boreal forest; various woodlands; open fields or peatlands with exposed perches for hunting; extensive muskegs with interspersed tamaracks and black spruce; open fens, bogs or meadows; diurnal habits; uses abandoned crow, raven, hawk nests; home range of 100 ha or more	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5S	✓						✓	✓						✓	✓
STRIGIDAE - Owls <i>Asio otus</i> Long-eared Owl S4	dense stands of coniferous or mixed forest; reforestation plots; isolated groves of coniferous woods on farmland; needs large open areas for foraging; winters deep in groves of evergreens	All except 2W; 3S; 4S; 4W	✓						✓								
STRIGIDAE - Owls <i>Asio flammeus</i> <sup>(COSEWIC)</sup> Short-eared Owl S2	grasslands, open areas or meadows that are grassy or bushy; marshes, bogs or tundra; both diurnal and nocturnal habits; ground nester; destruction of wetlands by drainage for agriculture is an important factor in the decline of this species; home range 25 -125 ha; requires 75-100 ha of contiguous open habitat	All except 3W; 4W; 4S	✓			✓								✓		✓	✓
STRIGIDAE - Owls <i>Aegolius funereus</i> Boreal Owl S4	boreal forest zone in mixed to pure coniferous forest; prefers spruce, balsam fir, trembling aspen, balsam poplar and white birch; open areas, such as beaver ponds; edges or natural openings for hunting; require dead or living trees with dbh >30 cm; hunting territories of open areas near edges ≥5 km <sup>2</sup>	2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E(4); 5S	✓	✓					✓	✓					✓		✓
STRIGIDAE - Owls <i>Aegolius acadicus</i> Northern Saw-whet Owl S4SSB	coniferous, mixed or deciduous forests; prefers conifers; found in interior or edge of forest; requires dead trees >30 cm for nesting and roosting; also in chimneys, abandoned buildings; commonly found in urban areas	3E; 3W; 4E; 4W; 4S; 5E; 6E; 7E					✓		✓	✓					✓		
CAPRIMULGIDAE - Goatsuckers <i>Chordeiles minor</i> Common Nighthawk S4B	open ground; clearings in dense forests; ploughed fields; gravel beaches or barren areas with rocky soils; open woodlands; flat gravel roofs	All				✓	✓	✓		✓							
CAPRIMULGIDAE - Goatsuckers <i>Caprimulgus vociferus</i> Whip-poor-will S5B	dry, open, deciduous woodlands of small to medium trees; oak or beech with lots of clearings and shaded leaf-litter; wooded edges, forest clearings with little herbaceous growth; pine plantations; associated with >100 ha forests; may require 500 to 1000 ha to maintain population	3E; 4E; 4W; 4S 5E; 5S; 6E; 7E				✓		✓	✓	✓	✓						✓
APODIDAE - Swifts <i>Chaetura pelagica</i> Chimney Swift S5B	commonly found in urban areas near buildings; nests in hollow trees, crevices of rock cliffs, chimneys; highly gregarious; feeds over open water	2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E		✓		✓	✓		✓	✓			✓	✓	✓		
TRICHLIDAE - Hummingbirds <i>Archilochus colubris</i> Ruby-throated Hummingbird S5B	dense, mixed woodland or forest edges; shade trees or orchards in cultivated lands near a stream if possible; wooded swamps; abundant, preferably red flowers	All except 1E; 2E; 2W	✓	✓			✓	✓		✓							
ALECEDINIDAE - Kingfishers <i>Ceryle alcyon</i> Belted Kingfisher S5B	sand, clay, gravelly banks within 1.6 km of water body with fish; eroded stream or river banks; lakeshore bluffs; gravel pits or road cuts close to adequate food source; needs perches near water for sighting prey	All	✓	✓											✓		

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PICIDAE - Woodpeckers <i>Melanerpes erythrocephalus</i> <sup>VV</sup> Red-headed Woodpecker S3B	open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; feeds on insects and stores nuts or acorns for winter; loss of habitat is limiting factor; requires cavity trees with at least 40 cm dbh; require about 4 ha for a territory	4E; 4S; 5E; 5S; 6E; 7E	√				√		√	√	√				√	√	
PICIDAE - Woodpeckers <i>Melanerpes carolinus</i> Red-bellied Woodpecker S3S4	mature deciduous forests with numerous dead trees; open woodlands, suburbs or parks; both wet bottomland or dry upland areas; requires at least 4 ha of continuous forest and cavity trees at least 35 cm dbh	6E(1,2,5,7,8,9,13,15); 7E	√						√	√	√				√		
PICIDAE - Woodpeckers <i>Sphyrapicus varius</i> Yellow-bellied Sapsucker S5B	dry, second growth forests with dead trees >25 cm dbh for nesting; prefers live trembling aspen; dense or open deciduous or mixed birch, hemlock, maple forest with tall trees; territories are from 2-5 ha in size	All	√					√	√	√	√				√		√
PICIDAE - Woodpeckers <i>Picoides pubescens</i> Downy Woodpecker S5	mainly deciduous, sometimes mixed forests; found in areas of few, young or mature matures; small woodlots or edges with shrubs and saplings; uses dead trees >20 cm dbh; territories cover 2-4 ha	All but 1E	√				√	√	√	√	√				√		
PICIDAE - Woodpeckers <i>Picoides villosus</i> Hairy Woodpecker S5	mixed or deciduous forests; prefer mature trees, but use wide range in size and canopy cover; forest edges; requires a number of tall trees and snags; requires trees >25 cm dbh; territories cover 4-8 ha	All	√						√	√	√				√		√
PICIDAE - Woodpeckers <i>Picoides tridactylus</i> Three-toed Woodpecker S4	moist, mature or old growth coniferous woodlands of cedar-balsam fir; burns with stands of dead timber; riparian areas; bogs; loosely colonial where nesting habitat is particularly suitable and food supply abundant; uses dead trees > 30 cm dbh; needs extensive (≥40 ha) of forest	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E(11); 5S; 6E(10)	√	√					√	√	√		(√)		√		√
PICIDAE - Woodpeckers <i>Picoides arcticus</i> Black-backed Woodpecker S4	burned over coniferous sites with standing timber; mature, old growth coniferous forests of mainly cedar-balsam fir; bogs; riparian areas; territories cover 30-40 ha	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 6E(5,13)	√	√	√				√	√	√				√		√
PICIDAE - Woodpeckers <i>Colaptes auratus</i> Northern Flicker S5B	open deciduous, coniferous or mixed woodlands; forest edges; suburbs, farm woodlots; wetlands; uses dead or dying trees with dbh >30 cm; very adaptable species; not dependent on forest size	All	√				√	√	√	√	√				√		
PICIDAE - Woodpeckers <i>Dryocopus pileatus</i> Pileated Woodpecker S4S5	extensive tracts of mature deciduous or mixed forest with water and large diameter (40+ cm) trees for cavity construction; both lowland, upland forests; sometimes found in more open agricultural areas and parks with large trees; area sensitive species requiring 40-260 ha; requires trees >25 cm dbh for nesting and trees 40+ cm dbh for roosting	All but 1E	√						√		√				√		√
TYRANNIDAE - Flycatchers <i>Contopus borealis</i> Olive-sided Flycatcher S5B	semi-open, conifer forest, prefers spruce; near pond, lake or river; tree wetlands for nesting; burns with dead trees for perching	All except 7E	√	√	√					√							
TYRANNIDAE - Flycatchers <i>Contopus virens</i> Eastern Wood Pewee S5B	open, deciduous, mixed or coniferous forest; predominated by oak with little understory; forest clearings, edges; farm woodlots, parks	2E; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√				√	√	√	√							
TYRANNIDAE - Flycatchers <i>Empidonax flaviventris</i> Yellow-bellied Flycatcher S5B	coniferous forest of pine and spruce with dense shrubs; shrubby swamps with spruce, alder; low, wet swampy thickets bordering ponds, streams, bogs; talus slopes	All except 7E	√		√			√	√	√			√				
TYRANNIDAE - Flycatchers <i>Empidonax virens</i> <sup>(ICOSEWIC)</sup> Acadian Flycatcher S2B	mature, shady, deciduous forests; heavily wooded ravines; creek bottoms or river swamps; availability of good quality habitat is limiting factor; needs at least 30 ha of forest	6E(1); 7E	√						√								√
TYRANNIDAE - Flycatchers <i>Empidonax alnorum</i> Alder Flycatcher S5B	open areas with alder, willow thickets bordering lakes or streams; low damp thickets in or near bogs, swamps or marshes; prefers alders, willows, elders or sumacs	All	√		√			√	√	√							
TYRANNIDAE - Flycatchers <i>Empidonax traillii</i> Willow Flycatcher S5B	open areas with secondary shrubby growth or low trees of willow, red osier dogwood, hawthorn; damp to dry brushy, abandoned fields or clearcuts; open forest or orchards with clearings; forest edges; hedgerows	4E; 5E; 6E; 7E						√	√	√							
TYRANNIDAE - Flycatchers <i>Empidonax minimus</i> Least Flycatcher S5B	open deciduous woodland or forest edges; orchards; open shrub land; clearings or overgrown pasture of >100 ha	All	√					√	√	√							√
TYRANNIDAE - Flycatchers <i>Sayornis phoebe</i> Eastern Phoebe S5B	suburban or agricultural areas; farmland; mature mixed, deciduous, coniferous woodlands; woodland cliffs or ravines, often near streams	2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E			√	√			√	√			√				
TYRANNIDAE - Flycatchers <i>Myiarchus crinitus</i> Great Crested Flycatcher S5B	broad-leaved trees in mature deciduous or mixed forests; prefers edges and clearings rather than forest interior; swamps, savannahs, old orchards; nests are in natural cavities or woodpecker holes in trees > 46 cm dbh; territories may not be more than 1 ha in size, but birds prefer rather extensive woodlands	3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√					√	√	√					√		
TYRANNIDAE - Flycatchers <i>Tyrannus verticalis</i> Western Kingbird S1B	dry, open country or scrub-land with trees; telephone poles or other perches; hedgerows; agricultural land	5S				√		√									√
TYRANNIDAE - Flycatchers <i>Tyrannus tyrannus</i> Eastern Kingbird S5B	shrubby, forest edges; hedgerows or stream banks in or near open fields; pastures, clearings or burned over lands with sufficient perches; swamps, marshes with dead stumps or snags; open woodlands and orchards; territory about 1 ha in size	All	√		√	√		√	√	√							
LANIIDAE - Shrikes <i>Lanius ludovicianus</i> <sup>(ICOSEWIC, MWR)</sup> Loggerhead Shrike S2B (protected in Regulation under <i>Endangered Species Act</i> )	grazed pasture, marginal farmland with scattered hawthorn shrubs, hedgerows; fence posts, wires and associated low-lying wetland; located on core areas of limestone plain adjacent to Canadian Shield; greatest threat is fragmentation of suitable habitat due to natural succession; probably needs at least 25 ha of suitable habitat	5E(11); 6E; 7E(3,6)				√											√

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VIREONIDAE - Vireos <i>Vireo griseus</i> White-eyed Vireo S2B	dense, swampy thickets and hillsides with blackberry and briar tangles; forest edges, early successional fields; territories 1-2 ha	6E(1,7,13); 7E	√					√		√							√
VIREONIDAE - Vireos <i>Vireo flavifrons</i> Yellow-throated Vireo S4B	open woods of oak, maple or other hardwoods; orchards; groves; roadside trees; rarely in conifers; requires at least 30 ha of forest area	6E; 7E	√					√	√	√							√
VIREONIDAE - Vireos <i>Vireo solitarius</i> Blue-headed Vireo S5B	large, mature coniferous or mixed forests of pine, hemlock or spruce with nearly continuous canopy and dense understory; pine plantations; either closed canopy or where trees are more scattered; require young coniferous or deciduous shrubs for nesting; often associated with swampy areas; territories <1 ha; appears to need about 100 ha of forest in the south	All except 7E(1)	√					√	√								√
VIREONIDAE - Vireos <i>Vireo gilvus</i> Warbling Vireo S5B	open, mature mixed or deciduous woodlands, orchards, shade trees; watercourse edges with scattered trees; mature deciduous trees such as maple, poplar; forest edges; woodland groves, parks; towns, cities	3E; 3W; 3S; 4E; 4S; 5E; 5S; 6E; 7E	√		√		√	√	√	√							
VIREONIDAE - Vireos <i>Vireo philadelphicus</i> Philadelphia Vireo S5B	open, deciduous, coniferous or mixed forest with trembling aspen and alders; among or adjacent to aspen groves; forest edges; streamside willow and alder thickets; burned over areas or clearings; small (0.5 ha) territory	2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E (3,4,6,8,9,10,11,12,14)	√		√			√		√							
VIREONIDAE - Vireos <i>Vireo olivaceus</i> Red-eyed Vireo S5B	open, second growth deciduous or mixed woodlands with a continuous canopy and dense understory including saplings; residential shade trees with continuous canopy; mesic stands in deciduous forest	All						√	√								
CORVIDAE - Crows, jays <i>Perisoreus canadensis</i> Gray Jay S5	coniferous, mixed wood forests; forest openings; bogs; highly territorial	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 6E(9,12)	√						√	√							
CORVIDAE - Crows, jays <i>Cyanocitta cristata</i> Blue Jay S5	coniferous, deciduous or mixed woods; regenerating forests; scrub meadow; urban habitats	All except 1E	√		√		√	√	√	√							
CORVIDAE - Crows, jays <i>Pica pica</i> Black-billed Magpie S3	prairie fringes; open agricultural, parkland or scrub-land; pastures, fields with aspen, willow, alder groves; open woodlands and thickets, especially along water courses; has close association with human, rural settlements	4S; 5S			√	√	√	√									√
CORVIDAE - Crows, jays <i>Corvus brachyrhynchos</i> American Crow S5	deciduous, coniferous, mixed woods with adjacent open areas or farmland; edges; open fields with scattered woodlots; forests near marshes, lakes, rivers	All	√		√	√	√	√	√	√							
CORVIDAE - Crows, jays <i>Corvus corax</i> Common Raven S5	relatively undisturbed habitat of boreal or mixed forest; nests on steep cliffs or in tall trees; uses and builds onto same nest in consecutive years	All except 7E	√						√				√				
ALAUDIDAE - Larks <i>Eremophila alpestris</i> Horned Lark S4N	large, open areas with short grasses, ploughed fields, agricultural lands, pastures, prairie, golf courses, cemeteries, airports; areas of little vegetation; tundra, seashore; needs a bare patch of exposed ground within territory	1E; 2E; 3E; 3S; 4E; 5E; 5S; 6E; 7E			√	√											
HIRUNDINIDAE - Swallows <i>Progne subis</i> Purple Martin S4S5B	open, trees areas such as farmland, parks, yards, marshes; usually near large bodies of water; colonial; nests in tree cavities, cliff ledges; most common in nest boxes; requires open space for foraging; prefers trees >15 cm dbh	4E; 4W; 4S; 5E; 5S; 6E; 7E	√	√	√		√			√			√	√	√		
HIRUNDINIDAE - Swallows <i>Tachycineta bicolor</i> Tree Swallow S5B	open spaces; near open water or over water; clear cuts or farmland; requires cavity trees with dbh >25 cm; normally a solitary nester	All	√	√	√	√	√			√						√	
HIRUNDINIDAE - Swallows <i>Stelgidopteryx serripennis</i> Northern Rough-winged Swallow S5	open areas near river banks, lakeshores; gravel pits, sandy road banks, steep riparian banks, or drainage holes for nesting, and near a water supply	3E; 4E; 4S; 5E; 5S; 6E; 7E;			√	√							√	√	√		
HIRUNDINIDAE - Swallows <i>Riparia riparia</i> Bank Swallow S5	sand, clay or gravel river banks or steep riverbank cliffs; lakeshore bluffs of easily crumbled sand or gravel; gravel pits, road-cuts, grassland or cultivated fields that are close to water; nesting sites are limiting factor for species presence	All		√	√								√	√	√		
HIRUNDINIDAE - Swallows <i>Hirundo pyrrhonota</i> Cliff Swallow S5	cliffs and bluffs with nearby open areas such as farmland, fields or pasture; nests built on buildings, bridges nests; open forest for feeding	All except 1E											√	√			
HIRUNDINIDAE - Swallows <i>Hirundo rustica</i> Barn Swallow S5B	farmlands or rural areas; cliffs, caves, rock niches; buildings or other man-made structures for nesting; open country near body of water	All	√	√	√	√				√			√	√			
PARIDAE - Titmice <i>Parus atricapillus</i> Black-capped Chickadee S5	small-open deciduous or mixed wooded areas (parks, residential areas); edges, thickets; nests in tree cavities of trees with dbh >10 cm; territory is 1-2 ha of woodland	All	√		√			√	√	√	√				√		
PARIDAE - Titmice <i>Parus hudsonicus</i> Boreal Chickadee S5	forests on poor soil; conifers (spruce); wooded swamps, bogs; thickets; nest in natural cavities, woodpecker holes, or their own excavation in decaying wood; territory is about 1-2 ha of woodland	1E; 2E; 3E; 3W; 3S; 4E; 4W; 4S; 5E(4,5,6,8,9,10); 5S	√					√	√		√	√			√		
PARIDAE - Titmice <i>Parus bicolor</i> Tufted Titmouse S2	mixed or deciduous forests; moist bottomlands and swamps, orchards; agricultural or urban forested areas, often near birdfeeders; Carolinian forest; nest in natural cavities or woodpecker holes in live or soft dead trees >10 cm dbh; area sensitive, requiring at least 4 ha of shrub and sapling growth near water	6E(1,6); 7E(1,3,5)	√				√	√		√	√				√	√	√
SITTIDAE - Nuthatches <i>Sitta canadensis</i> Red-breasted Nuthatch S5	coniferous and mixed wood forests; nests in a cavity in soft, decaying coniferous wood with dbh >12 cm; requires coniferous component to its habitat; most abundant in mature woods and relatively dense forests; nests in interior, requiring at least 10 ha of forest	All	√						√	√	√				√		√

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Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands / Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Colonial	Cavity Nester	Provincially Rare	Area Sensitive
SITTIDAE - Nuthatches <i>Sitta carolinensis</i> White-breasted Nuthatch S5	mature, broad-leaved woodland; tolerates mixed forest; orchards, shade trees in suburban and rural areas; uses natural cavities in trees with dbh > 30 cm; needs at least 10 ha or more of continuous forest	3E; 3W; 4E; 4W; 4S; 5E; 5S; 6E; 7E					√		√	√	√				√		√
CERTHIDAE - Creepers <i>Certhia americana</i> Brown Creeper SSB	mature dense, coniferous, deciduous, mixed woodlands; particularly wet areas with large dead trees; bogs; wooded swamps; older second growth forest; riparian areas; requires dead trees >25 cm dbh with loose bark for nesting; occasionally nests in tree cavity; requires a minimum of 30 ha	All	√	√					√	√					(√)		√
TROGLODYTIDAE - Wrens <i>Thryothorus ludovicianus</i> Carolina Wren S3	scrub-land; open deciduous woodland thickets and tangles along streams; woodland edges with slash piles; in winter found in sheltered stream valleys, deep ravines with nearby food source	6E(6,9,11,13,15); 7E			√		√	√		√					√	√	
TROGLODYTIDAE - Wrens <i>Troglodytes aedon</i> House Wren SSB	edges of woods, rivers, swamps or clear cuts; openings with shrubs and thickets; deciduous woods, shrubbery; gardens; orchards, swampy woodlands; nests in trees with dbh >25 cm; territories may be no more than 0.4 ha in size	3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√				√	√		√	√				√		
TROGLODYTIDAE - Wrens <i>Troglodytes troglodytes</i> Winter Wren SSB	interior species; coniferous forest with hemlock-pine communities; cedar swamps; spruce bogs; deep woods with dense undergrowth; downed wood close to forest streams; nests in cavities of uprooted trees, old stumps, brush piles; nests in soft trees with dbh >10 cm; appears to need at least 30 ha of forest	All	√		√			√	√	√	√				√		√
TROGLODYTIDAE - Wrens <i>Cistothorus platensis</i> Sedge Wren S4B	shallow, wet sedge or grass marshes, bogs, old fields or meadows with scattered shrubs of willow, alder; little to no standing water; territories 0.2 ha in size	All except 1E	√			√								√			
TROGLODYTIDAE - Wrens <i>Cistothorus palustris</i> Marsh Wren S4SSB	large, expanses of cattail marsh with some open water; shores of sluggish rivers or streams or inland ponds with moderate density stands of tall robust emergent vegetation (sedges, cattails); gregarious; uses same breeding area year after year; constructs "cavity nest" out of cattail leaves	2E; 3S; 4E; 4S; 5E; 5S; 6E; 7E	√	√	√									(√)			
SYLVIIDAE - Gnatcatchers, kinglets <i>Regulus satrapa</i> Golden-crowned Kinglet SSB	closed, mature coniferous forest; preferably spruce, fir, hemlock, pines; mature spruce and pine plantations with average dbh >15 cm and a closed canopy; cedar bogs	All	√						√								
SYLVIIDAE - Gnatcatchers, kinglets <i>Regulus calendula</i> Ruby-crowned Kinglet SSB	coniferous or mixed woodlands with stands of fir, spruce, tamarack or pine; evergreen stands in a variety of habitats; coniferous open or edge areas with thickets of brush; bogs	All except 7E	√					√	√	√							
SYLVIIDAE - Gnatcatchers, kinglets <i>Poliophtila caerulea</i> Blue-gray Gnatcatcher S4B	Carolinian and Great Lakes-St. Lawrence Forest zones in deciduous or mixed woods; oak-pine woods or oak savannahs; open, moist woodlands with brushy clearings; bottomland forests with closed canopies; wooded swamps; stream-side thickets; needs about 30 ha of forest	6E; 7E	√		√			√	√	√							√
TURDIDAE - Thrushes, robins, etc. <i>Sialia sialis</i> Eastern Bluebird S4SSB	agricultural area, clearings, fields, pastures, lawns, cemeteries, golf courses or forest clearings; savannahs; swamps, edges; orchards; low cavities in trees >20 cm dbh; territories are 4-8 ha	2E; 3E; 3S; 4E; 4W; 4S; 5E; 6E; 7E	√			√	√			√					√		
TURDIDAE - Thrushes, robins, etc. <i>Catharus fuscescens</i> Veery SSB	cool, moist, mixed and deciduous young or disturbed forest with bushy undergrowth and ferns; forest edges; wooded swamps or damp ravines; open woods with dense high undergrowth of ferns, shrubs; shows sensitivity to habitat fragmentation; needs at least 10 ha of forest	All except 1E	√					√		√	√						√
TURDIDAE - Thrushes, robins, etc. <i>Catharus ustulatus</i> Swainson's Thrush SSB	interiors of coniferous forest (spruce, fir), with deciduous shrubs; low, damp woods near water; riverbanks; young or mature stands; will use mixed woods	All except 7E	√		√				√	√							
TURDIDAE - Thrushes, robins, etc. <i>Catharus guttatus</i> Hermit Thrush SSB	boreal forest, or Great Lakes-St. Lawrence forest zones; rocky, dry, jack pine forests; dry sandy coniferous or deciduous woods with dense young undergrowth; spruce bogs; borders of wooded swamps and damp forest; brushy pasture; appears to need at least 100 ha of forest in south	All	√					√	√	√	√						√
TURDIDAE - Thrushes, robins, etc. <i>Hylocichla mustelina</i> Wood Thrush SSB	Carolinian and Great Lakes-St. Lawrence forest zones; undisturbed moist mature deciduous or mixed forest with deciduous sapling growth; near pond or swamp; hardwood forest edges; must have some trees higher than 12 m	3E; 3W; 4E; 4W; 5E; 6E; 7E						√	√	√	√						
TURDIDAE - Thrushes, robins, etc. <i>Turdus migratorius</i> American Robin SSB	residential areas, lawns, gardens, ornamental trees, shrubberies; forest edges and openings, burns, cut-over areas; fens, bogs; lake or river shores	All	√		√		√	√	√	√							
MIMIDAE - Mockingbirds, thrashers <i>Dumetella carolinensis</i> Gray Catbird SSB	country lane or suburban garden with shrubs patches; woodland edges; hedgerows; forest clearings with brushy areas; near water; territory about 0.3 ha	3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E	√		√		√	√		√							
MIMIDAE - Mockingbirds, thrashers <i>Mimus polyglottos</i> Northern Mockingbird S3S4	pastures, gardens or orchards with edible fruit-bearing shrubs; woodland edges, hedgerows; groves of large trees, low, dense woody vegetation; needs elevated perches	2E; 3E; 3W; 4E; 4W; 4S; 5E; 5S; 6E; 7E					√	√		√							
MIMIDAE - Mockingbirds, thrashers <i>Toxostoma rufum</i> Brown Thrasher SSB	open pastures, hedgerows or woodland edges with bushes, low trees or tangles of vines; areas of low, dense woody vegetation; early successional habitat; overgrown hawthorn pasture or marginal farmland	3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E; 7E						√		√							

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BOMBYCILLIDAE - Waxwings <i>Bombycilla cedrorum</i> Cedar Waxwing S5B	open, deciduous, coniferous forests; forest edges; orchards, woodlots; residential areas with shade trees; semi-open country; agricultural areas; near water, with available supply of berries; edges of ponds, lakes, rivers, marshes, fens, open swamps	All	√		√		√	√		√							
PARULIDAE - Wood warblers <i>Vermivora pinus</i> Blue-winged Warbler S4B	brushy, overgrown fields or meadows or old fields with saplings >3 m tall; second growth woodlands, edges; borders of wooded swamps, willow swamps, stream-sides; woodland openings; requires >20 ha of habitat	5E(7,8); 6E(1,2,3,4,5,6,7,8,9,10); 7E	√					√		√							
PARULIDAE - Wood warblers <i>Vermivora chrysoptera</i> Golden-winged Warbler S4B	early successional habitat; shrubby, grassy abandoned fields with small deciduous trees bordered by low woodland and wooded swamps; alder bogs; deciduous, damp woods; shrubby clearings in deciduous woods with saplings and grasses; brier-woodland edges; requires >10 ha of habitat	4E; 5E; 5S; 6E; 7E	√					√		√							
PARULIDAE - Wood warblers <i>Vermivora peregrina</i> Tennessee Warbler S5B	brushy, semi-open land; grassy openings in coniferous, deciduous or mixed woods with dense shrubs and scattered clumps of young deciduous trees; treed fens or boggy areas; dry pine plantations and beach ridges	All except 7E	√		√			√		√							
PARULIDAE - Wood warblers <i>Vermivora celata</i> Orange-crowned Warbler S4B	open deciduous or mixed woods with shrub undergrowth; second growth in clearings or burns; brushy thickets and tall stands of shrubbery	1E; 2E; 2W; 3E; 3W; 3S; 4S; 5S						√		√							
PARULIDAE - Wood warblers <i>Vermivora ruficapilla</i> Nashville Warbler S5B	wet, open coniferous, deciduous or mixed woods of young secondary growth; cedar, spruce swamps; dry or moist overgrown pastures and old field with scattered trees and shrubs; edges; nests in depressions in ground under dead, dry bracken fern	All	√					√		√							
PARULIDAE - Wood warblers <i>Parula americana</i> Northern Parula S4B	wooded bogs or swamps; conifers on which bearded lichen grows; closed canopy coniferous or mixed woods near water; area sensitive requiring at least 100 ha; an interior forest species	All except 1E	√						√	√							√
PARULIDAE - Wood warblers <i>Dendroica petechia</i> Yellow Warbler S5B	open areas with dense scrub; shrubby wetland areas; stream and river banks or lakeshores with scattered small trees or dense shrubbery; farmlands, orchards or suburban yards	All	√		√	√	√	√									
PARULIDAE - Wood warblers <i>Dendroica pensylvanica</i> Chestnut-sided Warbler S5B	shrubby, second growth deciduous woodland edges and fields next to stands of mature forest; hardwood regeneration stands; brushy watercourses; woodland clearings, burns; brushy woodland margins	All						√									
PARULIDAE - Wood warblers <i>Dendroica magnolia</i> Magnolia Warbler S5B	mainly mixed and coniferous forests; may be mature trees but require dense shrubs; in mature forests, prefer open areas, edges; disturbed woodland; appears to require about 30 ha in the south	All except 7E(1)	√					√	√	√							√
PARULIDAE - Wood warblers <i>Dendroica tigrina</i> Cape May Warbler S5B	a boreal forest species; coniferous and mixed forests; prefer relatively open woods and edges, but also occupy dense forest; require tall, mature coniferous trees	2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S							√	√							
PARULIDAE - Wood warblers <i>Dendroica caerulescens</i> Black-throated Blue Warbler S5B	an interior forest species; deciduous or mixed second growth forest; requires relatively closed canopy, but shrub undergrowth; hemlocks preferred in mixed forests; nests close to ground; likely requires over 100 ha in locations off the Shield	3E; 3W; 3S; 4E; 4W; 4S; 5E; 6E(2,3,4,5,6,7,8,9,10,11,12,14)	√					√	√	√	√						√
PARULIDAE - Wood warblers <i>Dendroica coronata</i> Yellow-rumped Warbler S5B	dry coniferous or mixed forests dominated by fir, spruce, pine, hemlock or cedar; with scattered openings from logging, fire or abandoned fields; evergreen plantations; young coniferous growth at woodland edges; also wetter habitat of black spruce or tamarack; adaptable and opportunistic	All except 7E(1,3,5)	√					√	√	√							
PARULIDAE - Wood warblers <i>Dendroica virens</i> Black-throated Green Warbler S5B	prefer dense, mixed forest, but also coniferous or more open woods; hemlock, fir are favoured conifers; wet cedar swamps; beech, maple, birches with multi-layered canopy and well developed shrub layer; requires about 30 ha	All except 1E	√						√	√							√
PARULIDAE - Wood warblers <i>Dendroica fusca</i> Blackburnian Warbler S5B	an interior forest species; requires mature deciduous or mixed forest; swampy woods with spruces thickly draped with bearded lichen; second growth deciduous woods; hardwood forests with chestnut trees; requires about 50 ha	All except 1E	√						√	√							√
PARULIDAE - Wood warblers <i>Dendroica pinus</i> Pine Warbler S5B	mature white pine (red to lesser degree) forests that are somewhat open; 40 to 50 year old pine plantations; area sensitive needing at least 15-30 ha	4E; 4W; 4S; 5E; 5S; 6E; 7E							√								√
PARULIDAE - Wood warblers <i>Dendroica discolor</i> <sup>(COSEWIC, COSSARD)</sup> Prairie Warbler S3B	scrub-land; mixed pine-oak barrens; old pastures; hillsides with scattered red cedars; avoids thick woods and benefits from cutting and burning of forests	5E(7,11); 6E(1,6,7,9,10); 7E(2)				√		√		√							√
PARULIDAE - Wood warblers <i>Dendroica palmarum</i> Palm Warbler S5B	in summer, bogs; during migration, open places, especially weedy fields and borders of marshes and woodlands; nests on ground in grass clump; territories are 1-2 ha in size; less common in south, particularly where wetlands have been eliminated	All but 7E	√							√							
PARULIDAE - Wood warblers <i>Dendroica castanea</i> Bay-breasted Warbler S5B	mature, conifer or mixed forest with spruce, balsam fir; young trees along ponds or streams or in bogs or forest clearings; early coniferous second growth	All except 6E; 7E	√		√			√	√								
PARULIDAE - Wood warblers <i>Dendroica cerulea</i> <sup>(COSEWIC, COSSARD)</sup> Cerulean Warbler S3B	mature deciduous woodland of Great Lakes- St. Lawrence and Carolinian forests, sometimes coniferous; swamps or bottomlands with large trees; area sensitive species needing extensive areas of forest (>100 ha)	5E(7,8,9); 6E(1,2,3,4,5,6,7,10,11,14); 7E							√							√	√
PARULIDAE - Wood warblers <i>Mniotilta varia</i> Black-and-white Warbler S5B	breeds at edges of large continuous stands of mature or old second growth deciduous or mixed forest; cedar swamps or bogs; riparian habitat; during migration prefer bottomland forests and forest edges; nests in interior in the south; area sensitive, requiring in excess of 100 ha of continuous forest	All	√		√			√	√	√	√						√



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PARULIDAE - Wood warblers <i>Setophaga ruticilla</i> American Redstart S5B	deciduous or mixed woods with closed canopy of either tall shrubs or dense young trees or mature trees; woodland edges; upland or lowland; requires >100 ha of forest habitat	All except 1E	✓					✓		✓							✓
PARULIDAE - Wood warblers <i>Protonotaria citrea</i> <sup>E</sup> Prothonotary Warbler S1S2B	area sensitive species preferring 100 ha of flooded or swampy woodlands with standing or flowing water and more than 25% canopy cover with numerous stumps and snags; stream borders or flooded bottomlands; soft, dead trees with dbh >10 cm; Carolinian species	6E(1,2,3); 7E(1,2,5)	✓												✓	✓	✓
PARULIDAE - Wood warblers <i>Seiurus aurocapillus</i> Ovenbird S5B	undisturbed, open, mature deciduous or mixed forest with closed canopy, little ground vegetation, lots of fallen leaves, logs or rocks; forested ravines or well-drained riverbanks; nests in depression of dead leaves at base of tree or log; area sensitive species, requiring >70 ha of continuous forest	All			✓				✓		✓		✓				✓
PARULIDAE - Wood warblers <i>Seiurus noveboracensis</i> Northern Waterthrush S5B	cool, shady, wet ground with open shallow pools of water; shrubby tangles, fallen logs; wooded swamps, bogs, creek, stream banks or swampy lakeshores; nests in banks, upturned tree roots or under mossy logs or stumps	All	✓		✓				✓		✓						
PARULIDAE - Wood warblers <i>Seiurus motacilla</i> <sup>(COSEWIC, COSSAR)</sup> Louisiana Waterthrush S3B	prefers wooded ravines with running streams; also woodlands swamps; large tracts of mature deciduous or mixed forests; canopy cover is essential; has strong affinity to nest sites; nests on ground	5E(11); 6E(1,2,5,6,9,10, 11); 7E	✓	✓					✓		✓						✓
PARULIDAE - Wood warblers <i>Oporornis agilis</i> Connecticut Warbler S4B	well-spaced black spruce swamps with good ground cover of Labrador Tea; moist woodlands with well-developed understorey for nesting; aspen or poplar	2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E(1,2,3,4); 5S	✓					✓			✓						
PARULIDAE - Wood warblers <i>Oporornis philadelphia</i> Mourning Warbler S5B	shrubby, forest clearings; burned or over-cut areas with saplings and brambles; dense underbrush; margin of lowland swamps, bogs, watercourses; mesic areas with dense shrubby undergrowth; extensive stands of dense saplings; woodland edges	All except 1E	✓					✓		✓	✓						
PARULIDAE - Wood warblers <i>Geothlypis trichas</i> Common Yellowthroat S5B	wetlands; cattail marshes, bogs; dense shrubby thickets on stream, pond margins; woodland edges; dense tangles near water; dense undergrowth in open woods; second growth old fields; feeds on or near ground	All	✓		✓			✓		✓	✓						
PARULIDAE - Wood warblers <i>Wilsonia citrina</i> <sup>(COSEWIC)</sup> Hooded Warbler S3B	favours mature, deciduous forest (Carolinian), particularly along stream bottoms, ravine edges and where saplings and shrubbery grow; nests above ground in small shrubs; feeds on or near ground	7E		✓					✓		✓		✓				✓
PARULIDAE - Wood warblers <i>Wilsonia pusilla</i> Wilson's Warbler S5B	boggy areas with cedar, tamarack or spruce; swampy, brushy land; streamside thickets and tangles; wet, wooded high shrubs or low deciduous trees	All except 6E; 7E	✓		✓			✓		✓							
PARULIDAE - Wood warblers <i>Wilsonia canadensis</i> Canada Warbler S5B	an interior forest species; dense, mixed coniferous, deciduous forests with closed canopy, wet bottomlands of cedar or alder; shrubby undergrowth in cool moist mature woodlands; riparian habitat; usually requires at least 30 ha	All except 1E	✓						✓		✓						✓
PARULIDAE - Wood warblers <i>Icteria virens</i> <sup>V</sup> Yellow-breasted Chat S2S3B	thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines etc.	6E(1,5,9,10,15); 7E			✓			✓		✓							✓
THRUPIDAE - Tanagers <i>Piranga olivacea</i> Scarlet Tanager S5B	upland, undisturbed, mature deciduous or mixed forests in Carolinian and Great Lakes-St. Lawrence Forest zones; nests in thick growth of small trees bordering forests of larger trees; also damp, alder, willow thickets; requires at least 20 ha of forest	All except 1E; 2W	✓					✓	✓								✓
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Pipilo erythrophthalmus</i> Eastern Towhee S4B	dense, brushy cover with leaf litter; abandoned fields or pastures with developing young trees or shrubs; woodland edges with dense undergrowth; streamside thickets; brushy hillsides	4E; 5E; 5S; 6E; 7E						✓		✓	✓						
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Spizella arborea</i> American Tree Sparrow S5B	open areas with scattered trees, brush; low-lying tundra with stands of shrubs, stunted trees, especially willow, birch, alder; in winter, weedy, brushy fields; open country with groves of small trees; hedgerows; marshes	1E (summer); 5E; 6E; 7E (winter)	✓					✓		✓							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Spizella passerina</i> Chipping Sparrow S5B	open, grassy areas next to woodland or with thickets of trees; lawns, gardens or orchards; open mixed woodland; forest clearings; lakeshores or stream borders	All					✓	✓	✓	✓	✓						
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Spizella pallida</i> Clay-coloured Sparrow S4B	brushy, open areas in prairies; young pine plantations; abandoned fields with shrubs, small trees; regenerating burns; thickets along edges of waterways	All				✓	✓	✓									
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Spizella pusilla</i> Field Sparrow S5B	open areas with low shrubs or trees; abandoned pasture, farm fields; overgrown power line corridors; thickets; forest edges; young conifer plantations	5E; 6E; 7E				✓		✓		✓							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Poocetes gramineus</i> Vesper Sparrow S5B	open areas with short, herbaceous vegetation and song perches; fields with hedgerows or regrowth; well-drained dry grassland areas with scattered trees or shrubs; open, dry conifer plantations; gravel pits; short grass meadows and pastures	All except 1E; 2E; 2W				✓											
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Passerculus sandwichensis</i> Savannah Sparrow S5B	hayfields, pastures, fields and meadows with dense ground vegetation of grasses and other vegetation of moderate height; moist lowlands and sedge meadows bordered by willows and sweet gale; territory is 1.5 to 2 ha in size; requires tracts of grassland >50 ha	All	✓		✓	✓											✓

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-3

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands / Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Colonial	Cavity Nester	Provincially Rare	Area Sensitive
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Ammodramus savaannarum</i> Grasshopper Sparrow S4B	well-drained grassland or prairie with low cover of grasses, taller weeds on sandy soil; hayfields or weedy fallow fields; uplands with ground vegetation of various densities; perches for singing; requires tracts of grassland > 10 ha	4E; 5E; 5S; 6E; 7E				√											√
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>henslowii</i> <sup>(COSEWIC, MNR)</sup> Henslow's Sparrow S1B (protected in Regulation under <i>Endangered Species Act</i> )	large, fallow, grassy area with ground mat of dead vegetation, dense herbaceous vegetation, ground litter and some song perches; neglected weedy fields; wet meadows; cultivated uplands; a moderate amount of moisture needed; requires a minimum tract of grassland of 40 ha, but usually in areas >100 ha	5E(1,2,3,7,8,9,11); 6E; 7E(2)				√										√	√
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Ammodramus leconteii</i> Le Conte's Sparrow S4B	nest in variety of open habitats; often found on drier edges of marshes and wet meadows in grasses, sedges, alder, willow, dense graminoid marsh, with or without shrubs	1E; 2E; 2W; 3E; 3W; 4E; 4W; 4S; 5S; 6E(1,5)	√			√											
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Melospiza melodia</i> Song Sparrow S5B	brushy edge habitat near water; swamps, brushy clearings, pastures or fields; hedgerows; ponds or stream shores; elevated perches for song-posts	All	√		√	√	√	√		√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Melospiza lincolni</i> Lincoln's Sparrow S5B	muskegs, bogs, swamps; regenerated stands following cutting or fires; hedgerows; spruce forests with clearings; willow, alder thickets; low brushy growth with openings of grass or sedge; edges of lakes, rivers	All except 7E(1,2,3,4,6)	√		√			√		√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Melospiza georgiana</i> Swamp Sparrow S5B	wetlands with little overstory; extensive cattail marshes, wet meadows, bogs of grasses, sedges or reeds, low swampy shores of lakes and streambanks; deciduous riparian thickets; moist woodlands	All	√		√			√									
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Zonotrichia albicollis</i> White-throated Sparrow S5B	coniferous or mixed, semi-open forests with jack pine or spruce, balsam fir, aspen, white birch; old cut-overs or burns with forest regeneration and slash piles; brushy clearings; borders of bogs; nests on ground in brush piles or under log	All	√					√		√	√						
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Zonotrichia leucophrys</i> White-crowned Sparrow S4B	breeding habitat is shrub growth in open areas such as woodland edge, forest burns, willow clumps on tundra, stream edges; nests on ground; may winter in southern Ontario	1E; 2E; 2W			√			√		√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Junco hyemalis</i> Dark-eyed Junco S5B	coniferous woodlands with aspen, birch and clearings; young jack pine stands; burned areas; forest edges; borders of streams or clearings; nests in depression on ground, under roots, rocks or logs; winters in conifers, hedgerows or brushy field borders	All						√		√	√						
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Cardinalis cardinalis</i> Northern Cardinal S5	open woodlands with heavy underbrush; woodland edges; urban areas, parks, groves, gardens; swamps or streamside thickets; brushy tangles; nests in dense shrub, small trees, tangles of vines, thickets or briars	4E; 5E; 6E; 7E	√				√	√		√	√						
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Pheucticus ludovicianus</i> Rose-breasted Grosbeak S5B	immature and mature broad-leaved deciduous forests; swamp borders; thickets, old orchards; suburban trees, shrubs	All except 1E; 2E; 2W; 7E(1)	√				√	√	√	√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Passerina cyanea</i> Indigo Bunting S5B	deciduous, mixed forest; woodland edge or hedgerows; second-growth shrubbery; old fields; old burns; thickets; brushy ravines; vegetated areas along creeks, rivers; needs elevated perches	All except 1E	√		√		√			√							
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Dolichonyx oryzivorus</i> Bobolink S4B	large, open expansive grasslands with dense ground cover; hayfields, meadows or fallow fields; marshes; requires tracts of grassland >50 ha	All except 1E; 2W	√			√											√
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Agelaius phoeniceus</i> Red-winged Blackbird S5B	marshes, swamps, ponds or wet meadows with extensive growth of cattails, bulrushes, sedges or reeds; grassy roadsides, suburban gardens or dry fields; colonial nester	All	√	√	√	√	√							√			
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Sturnella magna</i> Eastern Meadowlark S5B	open, grassy meadows, farmland, pastures, hayfields or grasslands with elevated singing perches; cultivated land and weedy areas with trees; old orchards with adjacent, open grassy areas >10 ha in size	3E; 4E; 5E; 5S; 6E; 7E				√											√
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Sturnella neglecta</i> Western Meadowlark S4B	prairies, grasslands >10 ha in size	6E(1,2,3,4,5,6,7,8,9,14)				√											√
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Xanthocephalus xanthocephalus</i> Yellow-headed Blackbird S3	deep (0.6 to 1.2 m) marshes or sloughs, lake edges with emergent vegetation, cattails, reedy lakes; also forages on grain fields, freshly ploughed ground and barnyards; nests in semi-colonial situations	3S; 4S; 5S; 6E(4,6); 7E(1,2)	√											(√)		√	
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Euphagus carolinus</i> Rusty Blackbird S5B	openings in coniferous woodlands bordering bodies of water; tree-bordered marshes, beaver ponds, muskegs, bogs, fens or wooded swamps; stream borders with alder, willow; wooded islands on lakes	All except 7E	√	√	√	√		√		√							

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-3

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands / Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Colonial	Cavity Nester	Provincially Rare	Area Sensitive
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Euphagus cyanocephalus</i> Brewer's Blackbird S4	grassy prairie with trees or shrubs, marsh edges, bogs, dry open fields, roadside ditches with fresh water; forages extensively in fields, pastures (often associated with cattle or sheep); golf courses and lawns; nest in colonies of 5 to 10 pairs; new colonies may only have 2 to 3 pairs; have common feeding areas	3E; 3S; 3W; 5E (1,2,3,4,5,6,7); 6E(2,3,4,5,6,8,14); 7E(1)	√			√	√	√						√			
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Quiscalus quiscula</i> Common Grackle S5B	farmland, suburbs or abandoned buildings; meadows; marshes, swamps; coniferous trees, hedges; tree stumps; may nest in small colonies	All except 1E	√		√	√	√	√		√				√			
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Molothrus ater</i> Brown-headed Cowbird S5B	agricultural or residential areas; open coniferous, deciduous woodlands; forest edges; short-grass areas	All except 1E	√		√	√	√	√	√	√							
ICTERIDAE - Meadowlarks, blackbirds, orioles <i>Icterus galbula</i> Baltimore Oriole S5B	deciduous, wooded areas with natural openings; hedgerows, deciduous groves, orchards, shade trees in parks, gardens, backyards; woodland edges; along streams and lakes	3E; 3W; 3S; 4E; 4W; 4S; 5E; T55S; 6E; 7E	√		√		√	√	√	√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Pinicola enucleator</i> Pine Grosbeak S4B	open coniferous forests with spruce or fir; forest edges, clearings	1E; 2E; 2W; 3E; 3W; 4E; 4W	√					√	√	√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Carpodacus purpureus</i> Purple Finch S5B	coniferous woodland or forest edges; coniferous plantations; ornamental conifers in residential areas, parks; orchards; winters in deciduous woodlands	All					√		√	√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Loxia curvirostra</i> Red Crossbill S5B	coniferous forest with red or white pine in Great Lakes-St. Lawrence and southern Boreal Forest zones	3E; 3W; 4E; 4W; 4S; 5E; 5S; 6E; 7E(2,4,5)	√						√	√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Loxia leucoptera</i> White-winged Crossbill S5B	boreal forest with tamarack, spruce, fir or hemlock	All except 7E	√						√	√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Carduelis flammula</i> Common Redpoll S4B	low shrub tundra or barren-lands with patches of spruce, tamarack, alder, willow thickets; winters near alder, birches in snow-covered weedy fields - frequents feeder	1E; 2E; 2W; winters in 6E	√			√		√		√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Carduelis pinus</i> Pine Siskin S5B	coniferous, mixed woods; coniferous plantations; alder thickets, weed patches next to forests	All					√	√		√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Carduelis tristis</i> American Goldfinch S5B	forest edges; open weedy fields or pastures with scattered trees or woody growth; river bottomlands with serviceberry and hawthorns; immature maples; garden plants in suburbs; open swamps	All except 1E; 2W	√		√		√	√		√							
FRINGILLIDAE - Grosbeaks, finches, sparrows, buntings <i>Coccothraustes vespertina</i> Evening Grosbeak S5B	coniferous or mixed forests; deciduous tree stands; parks, orchards	All except 1E; 7E					√	√	√								

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-4  
 Table G- 4: Habitat descriptions for native Ontario mammals<sup>1</sup>.

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands, Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
DIDELPHIMORPHIA <i>Didelphis virginiana</i> Virginia Opossum S4	lowland to upland deciduous wooded areas, preferably near water; common on farmland, particularly corn fields; inactive in dens during cold periods; requires live, hollow trees > 60 cm dbh; cold weather limits range; home range 6-16 ha, but may overlap with other opossum; omnivorous but prefers insects, carrion	6E(1,2,4,5,6,14,15); 7E	✓		✓			✓	✓	✓	✓				✓		
INSECTIVORA <i>Sorex arcticus</i> Arctic Shrew S5	boreal forest, north to tundra; wet meadow, shrub swamp bogs; semi-open low conifer woodlands with closed canopy; relies on leaf litter, downed woody debris for nesting and feeding; feed on insects	1E; 2E; 2W; 3E; 3W; 4E; 4W; 4S; 5S	✓						✓		✓						
INSECTAVORA <i>Sorex cinereus</i> Masked Shrew S5	damp deciduous, coniferous forests with cover such as grass, rocks, logs, stumps; bogs, marshes with cover; home range 0.04 ha; relies on grass, downed woody debris, brush for nesting, feeding; feed on insects	All	✓					✓	✓	✓	✓						
INSECTAVORA <i>Sorex fumeus</i> Smoky Shrew S5	moist, upland forests, usually of beech, maple, birch or hemlock with boulders, thick leaf litter; near streams with moss-covered banks; relies on downed woody debris, leaf litter for nesting and feeding	3E; 3W; 4E; 5E; 6E; 7E(2,3,4,5,6)	✓		✓			✓	✓	✓	✓						
INSECTAVORA <i>Sorex hoyi</i> Pygmy Shrew S4	usually dry woodland, grass clearings, thickets and under ferns; also moist sphagnum areas, damp leaf litter, rotten stumps, logs; relies on downed woody debris, leaf litter for nesting and feeding; prefers insects for food	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 6E(6,7,8,10,11,12); 7E(2,4)	✓		✓			✓	✓	✓	✓						
INSECTIVORA <i>Sorex palustris</i> Water Shrew S5	shrubby banks of streams, ponds or other aquatic systems in coniferous forests, sedge marshes; home range 0.3 ha; uses crevices between rocks, tree roots or overhanging banks for cover, nesting, feeding; prefers insects for food	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 6E; 7E(4)	✓		✓			✓	✓	✓	✓						
INSECTIVORA <i>Blarina brevicauda</i> Northern Short-tailed Shrew S5	deciduous, mixed, occasionally coniferous forests; open habitat with tall grass or brush piles; along stream banks; grass-sedge marshes; areas of loose, moist humus, low vegetation; home range 0.5 ha; relies on downed woody debris for cover, nesting, feeding; prefers insects for food	All except 1E; 2E	✓		✓	✓	✓	✓	✓	✓	✓						
INSECTIVORA <i>Cryptotis parva</i> Least Shrew SH	open, grassy areas with or without scattered brush; woodland edges; needs loose soil for tunnelling; somewhat gregarious and colonial; feeds on insects, worms; may cache insects for future use	7E(2)			✓	✓		✓	✓	✓				✓		✓	
INSECTIVORA <i>Parascalops breweri</i> Hairy-tailed Mole S4	open woods or meadows; requires vegetative cover and sufficiently deep soil, loose, moist, well-drained soil; home range 0.1 ha; feeds on worms, adult and larval insects	5E; 6E(1,3,6,7,8,9,10); 7E(2,3,4,5,6)				✓		✓	✓	✓							
INSECTIVORA <i>Scalopus aquaticus</i> <sup>(COSEWIC)</sup> Eastern Mole S2	prefers areas of deep, sandy or sandy-loam soils in pastures, meadows or lawns; occasionally open woodland; often found in moist bottomlands	7E(1)	✓			✓	✓			✓							✓
INSECTIVORA <i>Condylura cristata</i> Star-nosed Mole S5	low, wet ground such as marshes, wet fields; low-lying woods, shorelines; likes wet, mucky humus; home range 0.4 ha; relies on downed woody debris for cover and feeding; prefers insects	All except 1E	✓		✓	✓	✓	✓	✓	✓	✓						
CHIROPTERA <i>Myotis leibii</i> Small-footed Bat S2S3	roosts in caves, mine shafts, crevices or buildings that are in or near woodland; hibernates in cold dry caves or mines; maternity colonies in caves or buildings; hunts in forests	4E; 5E(34,7,8,9,10,11); 6E; 7E(2,3,4,5,6)	✓		✓			✓	✓	✓			✓	✓	✓	✓	
CHIROPTERA <i>Myotis lucifugus</i> Little Brown Bat S5	uses caves, quarries, tunnels, hollow trees or buildings for roosting; winters in humid caves; maternity sites in dark warm areas such as attics and barns; feeds primarily in wetlands, forest edges	All except 1E	✓	✓	✓		✓	✓	✓	✓				✓	✓		
CHIROPTERA <i>Myotis septentrionalis</i> Northern Long-eared Bat S3?	hibernates during winter in mines or caves; during summer males roost alone and females form maternity colonies of up to 60 adults; roosts in houses, manmade structures but prefers hollow trees or under loose bark; hunts within forests, below canopy	All except 1E; 7E(1)							✓	✓			✓	✓	✓	✓	
CHIROPTERA <i>Lasiorycteris noctivagans</i> Silver-haired Bat S4B	prefers temperate, hardwoods with ponds or streams nearby; roosts in tree foliage or hollow snags, buildings or caves; somewhat solitary except for small maternity colonies usually found in hollow trees; found in forested areas near watercourses; migrates south in winter	2E; 3W; 4E; 4W; 4S; 5E(7,8,9,10,11); 6E; 7E	✓	✓	✓				✓	✓				✓	✓		
CHIROPTERA <i>Pipistrellus subflavus</i> Eastern Pipistrelle S3?	open woods near water; roosts in trees, cliff crevices, buildings or caves; hibernates in damp, draft-free, warm caves, mines or rock crevices	4E; 5E(8,9,10,11); 6E(1,8,9); 7E(2,3,4)	✓	✓	✓				✓	✓			✓		✓	✓	
CHIROPTERA <i>Eptesicus fuscus</i> Big Brown Bat S5	prefers deciduous forest but thrives in urban and rural settings; roosts in buildings, caves, tunnels or hollow trees; may roost in small colonies; maternity colonies found in buildings; hibernates in cool dry caves or buildings; preferred feeding habitat is over wetlands; found in semi-open forests, agricultural or urban areas	All except 1E; 2E; 2W	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓		
CHIROPTERA <i>Lasiurus borealis</i> Red Bat S4B	roosts in leafy trees such as elm and maple but also may use conifers; forage habitat includes over streams, near lights and along field and forest edges; migrates south in winter; prefers to feed over wetlands or open fields; a solitary species	2E; 2W; 4E; 4W; 5E(7); 5S; 6E; 7E	✓	✓	✓	✓	✓	✓	✓	✓							
CHIROPTERA <i>Lasiurus cinereus</i> Hoary Bat S4B	roosts in trees with dense leaf foliage, forest edges or hedgerows; also in city parks; do not use caves; feeds over water or open areas; migrates south in winter; a solitary species, only forming groups while hunting	2E; 3W; 4E; 4W; 5E(2,5,7,8,9,10,11); 5S; 6E; 7E	✓	✓	✓	✓	✓	✓	✓	✓							
CHIROPTERA <i>Nycticeius humeralis</i> Evening Bat SAN	prefers woodland, mixed woodland habitats and watercourses; rarely found in caves; roost and maternity sites in hollow trees or under loose bark	7E(1)		✓	✓				✓	✓				✓	✓		

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-4

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands, Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
LAGOMORPHA <i>Sylvilagus floridanus</i> Eastern Cottontail S5	wooded areas with undergrowth; builds nest in thickets or briars; feeds in grassy areas	5E; 6E; 7E	✓			✓	✓	✓		✓	✓						
LAGOMORPHA <i>Lepus americanus</i> Snowshoe Hare S5	primarily resident of boreal forest, but in southern part of range found in cedar and spruce swamps; woods with dense brushy under-story; shrubby old fields or pasture; cut-over areas or burns with forest regeneration	All except 7E(1,2)	✓			✓		✓	✓	✓	✓						
LAGOMORPHA <i>Lepus arcticus</i> Arctic Hare SAN	wind-swept rocky slopes; upland tundra; may venture into wooded areas near forest edges	1E				✓											
LAGOMORPHA <i>Lepus townsendii</i> White-tailed Jackrabbit SH	open areas such as prairies, fields or open agricultural land	5S				✓										✓	
RODENTIA <i>Tamias minimus</i> Least Chipmunk S5	young or mature deciduous, coniferous or mixed forest with openings of shrub and saplings	All except 1E; 6E; 7E			✓			✓	✓	✓	✓				✓		
RODENTIA <i>Tamias striatus</i> Eastern Chipmunk S5	deciduous hardwood forests, prefers mature maple-beech woods; open situations; evergreen-deciduous forest edges; needs tree or shrub cover, old logs or stone walls and elevated perches	All except 1E; 2W			✓		✓	✓	✓	✓	✓				✓		
RODENTIA <i>Marmota monax</i> Woodchuck (Ground Hog) S5	uses wide variety of habitats; favours agricultural areas, small woodlots, open forests or large dense forests; digs deep burrows in ground or under tree roots	All				✓	✓	✓	✓	✓					✓		
RODENTIA <i>Spermophilus franklinii</i> Franklin's Ground Squirrel S2S3	prairies or forest clearings, open fields, shrub-sapling opening; open mature mixed, coniferous or deciduous forest	5S				✓		✓	✓	✓					✓	✓	
RODENTIA <i>Sciurus carolinensis</i> Gray Squirrel S5	deciduous or mixed forest or woodlots, preferably with mast producing trees; city parks; river bottomland; makes food caches	All except 1E; 2E; 2W			✓		✓	✓	✓	✓	✓				✓		
RODENTIA <i>Tamiasciurus hudsonicus</i> Red Squirrel S5	all forest types; rural woodlots; makes food caches	All	✓		✓			✓	✓	✓	✓				✓		
RODENTIA <i>Glaucomy's sabrinus</i> Northern Flying Squirrel S5	mature coniferous-deciduous forest, sometimes pure deciduous forest; cool heavily wooded areas; an area sensitive species, it requires 51-100 ha of continuous wooded area	All except 1E; 7E(1,2)	✓		✓				✓	✓	✓				✓		✓
RODENTIA <i>Glaucomy's volans</i> <sup>(VCOSEWIC)</sup> Southern Flying Squirrel S3	mature deciduous and mixed forest, particularly beech-maple, oak-hickory and aspen woodlands; needs cavity trees	5E(7,8,9,10,11,12); 6E; 7E							✓	✓	✓				✓	✓	✓
RODENTIA <i>Castor canadensis</i> Beaver S5	wetlands with an adequate food supply and deep water; slow flowing brooks, streams, rivers, lakes bordered by woodlands; makes food caches	All	✓	✓	✓			✓		✓	✓						
RODENTIA <i>Peromyscus leucopus</i> White-footed Mouse S5	interiors or edges of coniferous, deciduous or mixed forest; brushy woodland clearings or pastures; streamside thickets; nests in cavities, buildings or under stumps and logs; home range 0.2 ha; makes food caches	6E; 7E	✓		✓	✓	✓	✓	✓	✓	✓				✓		
RODENTIA <i>Peromyscus maniculatus</i> Deer Mouse S5	wide range of habitat types; interior or edges of coniferous or mixed forest; field borders; out-buildings near areas with small trees and dense ground cover; nests in stone walls, buildings, old burrows, under logs or in tree cavities; home range 1.2 ha	All	✓		✓	✓	✓	✓	✓	✓	✓				✓		
RODENTIA <i>Clethrionomys gapperi</i> Southern Red-backed Vole S5	cool, damp or swampy deciduous and coniferous forest with deep litter; among mossy rocks, logs, stumps or other cover; talus slopes; requires a water source such as a spring or bog and debris cover	All except 7E	✓		✓					✓	✓	✓	✓				
RODENTIA <i>Phenacomys intermedius</i> Heather Vole S4	semi-open coniferous forest with understory of heaths; usually near water; bogs	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W;; 4S; 5E(4,5,7)	✓			✓		✓	✓	✓	✓						
RODENTIA <i>Microtus chrotorrhinus</i> Rock Vole S3	rocky areas such as moss-covered rock outcrops or talus slopes near streams; cool damp coniferous or mixed forests	2E; 3E; 3W; 4E; 4W; 5E(4,5,9)	✓		✓				✓	✓	✓		✓				✓
RODENTIA <i>Microtus pennsylvanicus</i> Meadow Vole S5	areas with herbaceous vegetation and loose organic soil; wet or dry open areas such as meadows, fields, pastures, swamps, bogs and marshes, open forest, clear-cuts or orchards	All	✓		✓	✓					✓						
RODENTIA <i>Pitymys pinetorum</i> Woodland Vole S3?	mature deciduous forest in the Carolinian forest zone, with loose sandy soil and deep humus; grasslands, meadows and orchards with groundcover of duff or grass	7E(2,3,5,6)				✓		✓	✓	✓	✓						✓
RODENTIA <i>Odonatra zibethicus</i> Muskrat S5	wetlands with dense emergent vegetation where water doesn't freeze to bottom; shallow portions of lakes or ponds; slow flowing streams and rivers with abundant vegetation; drainage ditches; requires stable water levels; makes food caches	All	✓	✓	✓												
RODENTIA <i>Synaptomys borealis</i> Northern Bog Lemming SU	sphagnum bogs, moist black spruce-horsetail forest; dry black spruce-lichen woodland; hemlock-beech forest; sub-alpine meadows, alpine tundra, weedy fields	1E; 2E; 5S	✓			✓		✓	✓	✓	✓						✓
RODENTIA <i>Synaptomys cooperi</i> Southern Bog Lemming S4	sphagnum bogs and marshes; moist deciduous or mixed forest with loose duff, well-drained upland covered with grass or forests; orchards; open meadows or small forest openings with sufficient cover; needs moist soils; home range 0.4 ha	1E; 2E; 2W; 3E; 3W; 4E; 4W; 4S; 5E; 6E(1,6,7,14); 7E(2,3,6)	✓			✓		✓	✓	✓	✓						

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-4

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands, Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
RODENTIA <i>Zapus hudsonius</i> Meadow Jumping Mouse S5	forested or open areas with shrubs and small trees; loose soil and herbaceous ground cover; open grassy or brushy marshes, swamps and wet meadows; riparian habitat	All	√		√	√		√		√	√						
RODENTIA <i>Napaeozapus insignis</i> Woodland Jumping Mouse S5	cool, moist or dry deciduous and coniferous forested areas with herbaceous ground cover; loose soil and low woody shrubs; brush on along lakes or streams	All except 1E; 2W; 3S; 7E(1)	√		√			√	√	√	√						
RODENTIA <i>Erithizon dorsatum</i> Porcupine S5	wooded riparian areas and swamps; orchards, savannahs, old field or pasture; home range 15 ha; den sites in rock ledges, trees or other protected places	All except 7E(1)	√					√	√	√			√		√		
CARNIVORA <i>Canis latrans</i> Coyote S5	open woodland or forest edges or openings created by clear-cutting or fires; agricultural areas or open fields; secluded den sites; home range 70 km <sup>2</sup> ; during winter in northern part of range, may concentrate in low-lying areas with lots of prey; makes food caches	All except 1E; 2W	√		√		√	√	√	√	√				√		
CARNIVORA <i>Canis lupus</i> Gray Wolf S4	heavily forested areas; home range 300 km <sup>2</sup> ; makes food caches	All except 6E(1,2,3,4,5,6,7,9,12,13,14); 7E	√		√			√	√	√	√				√		
CARNIVORA <i>Vulpes vulpes</i> Red Fox S5	dry upland, with open areas, patches of cover; swamps, marsh edges, extensive forests, agricultural areas, suburbs; requires loose soil for maternity den sites; does not den up in winter, sleeping open and using downed woody debris for cover; makes food caches	All	√		√	√	√	√	√	√	√				√		
CARNIVORA <i>Urocyon cinereogentus</i> <sup>(COSEWIC)</sup> Gray Fox S2N?	hardwood forests with a mix of fields and woods; swamps; wooded, brushy or rocky habitats; woodland farmland edge; old fields with thickets; dens in hollow log or tree; individual has numerous winter dens throughout its range which is > 40 ha	3W; 4W; 5S; 6E(6,7,8,9,11,12); 7E(2,5)	√			√		√	√	√					√		
CARNIVORA <i>Ursus americanus</i> Black Bear S5	large undeveloped tracts of mixed forest with clearings, early successional vegetation, mast trees and thick understory; swamps; dens under fallen trees, in hollow logs, rock ledges, slash piles or other protected areas	All except 7E	√		√			√	√	√	√				√		
CARNIVORA <i>Procyon lotor</i> Raccoon S5	wooded areas near lakes or streams, with open fields; wetlands; near human habitation; needs water	All	√	√	√	√	√	√	√	√	√	√			√		
CARNIVORA <i>Martes americana</i> Marten S5	continuous tracts of mature coniferous or conifer dominated mixed wood forests; cedar swamps; mainly terrestrial in winter and more arboreal in summer; home range is larger for males (2.0-15.0 km <sup>2</sup> ) than females (0.8-8.4 km <sup>2</sup> ); maternal dens in cavities of trees > 40 cm dbh; also require large snags as summer resting sites; winter den and resting sites under snow cover in large logs, stumps or snags	All except 6E(1,2,3,4,5,6,7,13,14, 15); 7E	√		√			√	√	√	√				√		√
CARNIVORA <i>Martes pennanti</i> Fisher S5	requires extensive forest cover; mixed or early-successional deciduous forests; forested wetlands such as wet meadows, swamps and bogs; riparian habitats; mainly terrestrial; home range about 20 km <sup>2</sup> ; nests in hollow trees, log or cavity among rocks; makes food caches	All except 6E(1,2,3,4,5,6,7,8,9,13, 14,15); 7E	√		√			√	√	√	√				√		√
CARNIVORA <i>Mustela erminea</i> Ermine (Short-tailed Weasel) S5	wooded or open habitat with heavy cover such as thickets or rock piles; often close to watercourses; home range 25 ha; needs small rodents for food and dense brushy cover; relies on downed woody debris for cover, food and nesting; makes food caches	All except 7E(1)	√		√	√		√		√	√				√		
CARNIVORA <i>Mustela frenata</i> Long-tailed Weasel S4	farmland, prairies, woodlands, swamps; forest edges, hedgerows and fencerows; dens in previously excavated burrows or natural holes or crevices	3E; 3W; 4E; 4W; 5E; 6E; 7E	√		√	√		√		√	√				√		
CARNIVORA <i>Mustela nivalis</i> Least Weasel SU	grassy, brushy areas; open woodland; river bottoms; marshes; floodplains; dens in stump, log, rabbit hole or rock pile; makes food caches	2W; 3E; 5E(8)	√		√	√		√		√	√				√	√	
CARNIVORA <i>Mustela vison</i> Mink S5	stream banks, lakeshores, beaver ponds, marshes or forested wetlands with lots of cover such as rocks, logs or thickets; dens inside hollow logs, under tree roots or in burrows along watercourse edges; makes food caches	All	√	√	√					√	√				√		
CARNIVORA <i>Taxidea taxus</i> American Badger S2S3	open grasslands and oak savannahs; dens in new hole or enlarged existing hole; sometimes makes food caches	7E(2,5)				√									√	√	
CARNIVORA <i>Mephitis mephitis</i> Striped Skunk S5	semi-open woods, orchards or savannah; meadows, grasslands, fields, cultivated lands or pasture; rural or urban areas; dumps; dens in buildings, stumps, rock cavities, abandoned burrows	All except 2W				√	√			√	√				√		
CARNIVORA <i>Lontra canadensis</i> River Otter S5	riparian habitat; borders of streams, lakes or other wetlands in forested areas; needs a body of water and suitable den sites such as crevices in rocky ledges, under a fallen tree, an abandoned beaver or muskrat lodge or dense thickets bordering water; home range changes as water freezes or feeding or living conditions are altered	All except 6E(1); 7E	√	√	√						√				√		
CARNIVORA <i>Felis concolor couga</i> <sup>(COSEWIC)</sup> Cougar SH (protected in Regulation under Endangered Species Act)	undisturbed, mixed, coniferous forests; rough, hilly country; swampy land	undetermined	√					√	√	√						√	

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-4

Family Name Scientific Name Common Name NHIC Ranking (Special Protection Measures)	Habitat / Habits Description	Site Region (Districts)	Wetlands e.g. Marshes, Swamps	Open Water (Lakes, Ponds, Rivers, Streams)	Riparian - Shores or Nearshore Areas	Grasslands	Parklands, Suburban Areas	Thickets, Second Growth	Old Growth, Mature Stands	Forest Edges	Downed Woody Debris	Seeps	Cliffs, Talus Slopes, Ravines	Seasonally Concentrated	Cavity User	Provincially Rare	Area Sensitive
CARNIVORA <i>Lynx canadensis</i> Lynx S5	interiors of extensive unbroken coniferous or deciduous forests; distribution strongly tied to distribution and abundance of snowshoe hares; swamps or bogs; rocky areas; uses secluded den sites such as among rocks, under a fallen tree or in a hollow log or other natural cavity; home range 20 km <sup>2</sup>	All except 7E	√					√	√	√	√				√		√
CARNIVORA <i>Lynx rufus</i> Bobcat S3S4?	mixed or deciduous forest; brushy and rocky woodlands broken by fields, old roads and farmland; cedar swamps and spruce thickets; areas with thick undergrowth, conifer cover in winter; dens in log, thicket or under rock ledge; home range 156 km <sup>2</sup> , covering 32-40 km in one night	2E; 3E; 3W; 3S; 4E; 4W; 4S; 5E(11); 6E(11)	√				√	√		√		√			√	(√)	
ARTIODACTYLA <i>Odocoileus virginianus</i> White-tailed Deer S5	forest with interspersed open areas such as pastures or fields, forest edges; swamps and swamp edges; in winter requires dense cover such as stands of conifers; in more northern range, yards up in winter	All except 1E; 2E; 2W	√		√	√	√	√	√	√	√		√				
ARTIODACTYLA <i>Alces alces</i> Moose S5	Boreal Forest and Great Lakes-St. Lawrence regions; requires some semi-open spaces and swamps or other wetlands for cover and aquatic plants for food; feeding areas with specific aquatic plant species are used; travel corridors to these sites are important; naturally occurring mineral licks are important in spring and early summer; in summer, wetlands preferred; in winter drier forests used; cut-overs and burns particularly important; concentrate in larger numbers at specific sites in winter, during calving and at mineral licks	1E; 2E; 2W; 3E; 3W; 3S; 4E; 4W; 4S; 5E; 5S; 6E(12)	√	√	√		√	√	√	√		√		√			√
ARTIODACTYLA <i>Cervus elaphus nelsoni</i> American Elk (Wapiti) re-introduced (contact MNR for information on the Elk Restoration Plan which began in 1998)	wide variety of habitats; prefers semi-open forests; performs local, seasonal movements; live in herds but calving occurs singly, usually in open country	4E; 5E broad geographic areas offering suitable habitat for elk restoration include: Lake of the Woods, Haliburton Highlands, Lake Huron (north shore), Nipissing-French River, Frontenac Axis, Ottawa Valley	√		√	√	√	√	√	√			√				
ARTIODACTYLA <i>Rangifer tarandus</i> <sup>(COSEWIC)</sup> Woodland Caribou S3S4?	large expanses (at least 130-150 ha ) of mature, lichen-rich coniferous forest (particularly 80-120 year old jack pine); uniformly aged stands; bogs, fens; in winter, wander in small bands of three or four	1E; 2E; 2W; 3E; 3W; 3S; 4W; 4S; 5S	√					√	√				√		√	√	√

<sup>1</sup> The following species are not listed in this table by virtue of their more northern geographic range: Beluga, *Delphinapterus leucas*; Arctic Fox, *Alpoex lagopus*; Polar Bear, *Ursus maritimus*<sup>(COSEWIC)</sup>; Wolverine, *Gulo gulo*<sup>(COSEWIC)</sup>; Walrus, *Odobenus rosmarus*; Ringed Seal, *Phoca hispida*; Bearded Seal, *Erignathus barbatus*. European Hare, *Lepus europaeus*, is not listed, as it is not believed to be a native component of Ontario's fauna.

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Table G-5. Habitat descriptions for rare vascular plants that are tracked by the Ministry of Natural Resources Natural Heritage Information Centre (NHIC).

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
ACANTHACEAE <i>Justicia americana</i> <sup>TV</sup> Water-willow S2	borders of streams, lakes and ponds	7E(1,2,3,5)		✓				✓							✓		
ADOXACEAE <i>Adoxa moschatellina</i> Muskroot S1	moist to wet, rich deciduous or coniferous woods	4W;5S														✓	
ALISMATACEAE <i>Alisma gramineum</i> Narrow-leaved Water-plantain S3S4	shallow water and muddy shores	5E(11);6E(10,11,12,15);7E(4)		✓										✓			
ALISMATACEAE <i>Sagittaria graminea</i> var. <i>cristata</i> Crested Arrow-head S3	shallow, alkaline water of rocky or sandy shores	5E(2,3,7);6E(4,6,8,14);7E(2)		✓										✓			
ANACARDIACEAE <i>Rhus copallina</i> Winged Sumac S3S4	rocky outcrops and dry sandy areas	5E(11);6E(10);7E(1,2,6)							✓								
ANNONACEAE <i>Asimina triloba</i> Pawpaw S3	moist woods and stream banks	7E						✓								✓	✓
APIACEAE <i>Chaerophyllum procumbens</i> var. <i>procumbens</i> Spreading Chervil S2	rich moist deciduous woods and edges, thickets; moist open places	7E(1,2)														✓	
APIACEAE <i>Chaerophyllum procumbens</i> var. <i>shortii</i> Spreading Chervil S1	rich moist deciduous woods and edges, thickets; moist open places	7E(1,2)														✓	
APIACEAE <i>Conioselinum chinense</i> Hemlock Parsley S3	calcareous cedar swamps; wet borders of streams and rivers; seepage slopes in wet coniferous woods, swampy thickets, moist clearings and damp roadsides - in northern Ontario in <i>Salix-Alnus</i> thickets; moist <i>Populus</i> stands, moist sandy shorelines	2E;6E(1);7E(2)						✓		✓					✓	✓	
APIACEAE <i>Erigenia bulbosa</i> Harbinger-of-spring S3	rich, moist deciduous woods, open, wooded river floodplains and bottomlands; streambanks and limestone shingle shores	6E(1);7E(1,2,4,6)						✓								✓	
APIACEAE <i>Ligusticum scoticum</i> Scotch Lovage S3	coastal, intertidal marshes and supratidal meadow-marshes; raised sand, gravel beach ridges; tidal mudflats and moist, clay-gravel shore matrix	2E										✓			✓		
APIACEAE <i>Oxypolis rigidior</i> Stiff Cowbane S2	moist, sandy-clay prairies; rich wet to mesic hardwood forests; sandy, swampy woodlands, thickets and meadows; open, sandy fields	7E(1)					✓								✓	✓	
APIACEAE <i>Sanicula canadensis</i> var. <i>grandis</i> Long-styled Canadian Snakeroot S2	rich deciduous woods	7E(2,5,6)														✓	
APIACEAE <i>Thaspium barbinode</i> Hairy-jointed Meadow-parsnip S1	dry to moist soil of low, sandy woods and clearings; rich wet to mesic hardwoods; openings in <i>Juniperus</i> savannahs on limestone flats; thickets and borders of wetlands	7E(1,3,5)								✓					✓	✓	
APIACEAE <i>Thaspium trifoliatum</i> Meadow-parsnip S2	clay soil of oak-hickory woods and floodplain forests, thickets and woodland edges and dry upland woods	7E(1)						✓								✓	✓
APIACEAE <i>Zizia aptera</i> Heartleaf Alexanders S2	dry open scrubby woods, rocky calcareous riverflats, clearings in cedar-spruce woods and adventive along railway tracks	6E(2);7E(2)						✓								✓	✓
ARACEAE <i>Arisaema dracontium</i> <sup>V</sup> Green Dragon S3	wet bottomlands along rivers and creeks	6E(1);7E						✓							✓	✓	
ARACEAE <i>Peltandra virginica</i> Arrow-arum S2	shallow waters in streams, rivers and marshes	5E(2,3);6E(6,10,15);7E(5)	✓	✓											✓		
ARALIACEAE <i>Oplopanax horridus</i> Devil's Club S1	open-mixed or coniferous woods and thickets	3W														✓	
ARALIACEAE <i>Panax quinquefolium</i> <sup>F</sup> Ginseng S3	deep leaf litter in rich, moist deciduous woods, especially on rocky, shaded cool slopes in sweet soil	5E(7);6E;7E														✓	
ASCLEPIADACEAE <i>Asclepias hirtella</i> Tall Green Milkweed S1	dry sandy soil, prairies	7E(1)					✓										
ASCLEPIADACEAE <i>Asclepias purpurascens</i> Purple Milkweed S2	dry to moist thickets, prairies, alvar	7E(1)	✓				✓			✓							✓
ASCLEPIADACEAE <i>Asclepias sullivantii</i> Prairie Milkweed S2	wet meadows and prairies, and adventive along roadsides	7E(1,4)					✓										
ASCLEPIADACEAE <i>Asclepias verticillata</i> Whorled Milkweed S2	open, sandy woods, and adventive along roadsides and in old fields	6E(1);7E(1,2,5)														✓	✓



Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
ASCLEPIADACEAE <i>Asclepias viridiflora</i> Green Milkweed S2	open sandy woods and sand dunes, savannah and alvar	5E(3);7E(1,2)	✓			✓				✓						✓	
ASCLEPIADACEAE <i>Asclepias ovalifolia</i> Oval Milkweed S1	silty, river banks, prairie	5S					✓	✓								✓	
ASPLENIACEAE <i>Asplenium ruta-muraria</i> Wallrue Spleenwort S2	cliffs and crevices in very dry limestone rock	5E(2);6E(14)			✓				✓				✓				
ASPLENIACEAE <i>Asplenium scolopendrium</i> Hart's-tongue Fern S3	shaded calcareous rock (limestone and dolostone) <sup>3</sup>	6E(4,5)			✓				✓				✓			✓	
ASTERACEAE <i>Adenocaulon bicolor</i> Trail-plant S1	wooded rocky hillsides	6E(14)														✓	
ASTERACEAE <i>Antennaria microphylla</i> Pussy-toes S1	open, dry to mesic prairies and stream margins	2E					✓	✓									
ASTERACEAE <i>Antennaria oxyphylla</i> Pussy-toes S1?	exposed rocky outcroppings, open woods from lower montane to alpine and arctic zones	2E;3W;4W							✓							✓	
ASTERACEAE <i>Antennaria parvifolia</i> Pussy-toes S1	open, dry prairies and exposed rocky places	3W;4W					✓		✓								
ASTERACEAE <i>Antennaria rosea</i> Pussy-toes S1	exposed rocky outcroppings, open woods from lower montane to alpine and arctic zones	2E;3W;4W							✓							✓	
ASTERACEAE <i>Antennaria subviscosa</i> Pussy-toes S1	exposed rocky outcroppings, open woods from lower montane to alpine and arctic zones	2E;3W;4W							✓							✓	
ASTERACEAE <i>Arnica cordifolia</i> Heartleaf Arnica S1	mixed woods	3W;4W														✓	
ASTERACEAE <i>Arnica lonchophylla</i> ssp. <i>chionopappa</i> Snowy Arnica S1	cold, calcareous sites in open woodlands, river gravels, shorelines, rocky barrens, outcrops and cliff crevices	1E;3W;4W			✓							✓				✓	
ASTERACEAE <i>Arnica lonchophylla</i> ssp. <i>lonchophylla</i> Arnica S1	cold, calcareous sites in open woodlands, river gravels, shorelines, rocky barrens, outcrops and cliff crevices	1E;3W;4W			✓							✓				✓	
ASTERACEAE <i>Artemisia frigida</i> Prairie Sagebrush S2S3	prairies and dry open places, <sup>3</sup> cliffs and adventive along roadsides	4W, 5S			✓		✓		✓								
ASTERACEAE <i>Artemisia tilesii</i> Tilesius Wormwood S2	raised beaches and ridges along coast	2E										✓					
ASTERACEAE <i>Aster alpinus</i> Alpine Aster S1	arctic/alpine tundra	1E												✓			
ASTERACEAE <i>Aster brachyactis</i> Rayless Aster S3?	Coastal salt marshes in N, Ont., saline, waste places, roadsides, entirely adventive <sup>3</sup> in southern Ontario	2E										✓			✓		
ASTERACEAE <i>Aster divaricatus</i> <sup>7</sup> White Wood Aster S1	mesic to dry deciduous woods	7E (3,5)														✓	
ASTERACEAE <i>Aster dumosus</i> Bushy Aster S2	wet marshy thickets and wet sandy shores	6E(13,15); 7E (1,2)										✓			✓		
ASTERACEAE <i>Aster ericoides</i> var. <i>pansus</i> Prairie Heath Aster S1	dry prairie-like grasslands	4S;5S					✓										
ASTERACEAE <i>Aster praealtus</i> Willow Aster S2	sandy, prairie-like open oak savannahs	7E(1)					✓		✓							✓	
ASTERACEAE <i>Aster prenanthoides</i> Crooked-stem Aster S2	moist woods, fields, floodplain woods	7E(2)						✓								✓	
ASTERACEAE <i>Aster radula</i> Rough Aster S1	open, grassy fens	2E													✓		
ASTERACEAE <i>Aster schreberi</i> Schreber's Aster S2	woods <sup>3</sup>	7E														✓	
ASTERACEAE <i>Aster sericeus</i> <sup>8</sup> Silver-leaf Aster S1	open oak woods and glades on sand and limestone soils	5S							✓							✓	
ASTERACEAE <i>Aster shortii</i> Short's Aster S2	mesic to dry deciduous woods and savannah	7E(1)	✓							✓						✓	✓
ASTERACEAE <i>Bidens coronata</i> Southern Tickseed S2	moist, sandy meadows, marshes, stream banks and gravelly shores	5E(7); 7E(1,2,5)						✓				✓			✓		

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
ASTERACEAE <i>Bidens hyperborea</i> Estuary Beggar-ticks S1S2	shore of James Bay <sup>3</sup>	1E,2E										✓			✓		
ASTERACEAE <i>Cacalia plantaginea</i> <sup>4</sup> Prairie Indian-plantain S3	marl fens, wet meadows, sandy shores and moist limestone flats	6E(1,2,4,5, 14); 7E(2)						✓				✓			✓		
ASTERACEAE <i>Chrysanthemum arcticum</i> Arctic Daisy S3																	
ASTERACEAE <i>Cirsium drummondii</i> Drummond's Thistle S1	Prairie	3W,4W					✓										
ASTERACEAE <i>Cirsium flodmanii</i> Flodman Thistle S2?	Prairie, open woods	4W					✓									✓	✓
ASTERACEAE <i>Cirsium hillii</i> Prairie Thistle S3	sand dunes, sandy woods, limestone pavement and open woods on limestone	5E(2); 6E(2,4,6,14)	✓			✓										✓	
ASTERACEAE <i>Cirsium pitcheri</i> <sup>7</sup> Dune Thistle S2	sand dunes, beaches	3W,3E				✓						✓					
ASTERACEAE <i>Coreopsis tripteris</i> Tall Coreopsis S2	damp prairies, thickets, open woods	7E(1)					✓									✓	✓
ASTERACEAE <i>Echinacea pallida</i> Pale Purple Coneflower S1	dry, open places; prairies <sup>3</sup>	7E(2)					✓										
ASTERACEAE <i>Eclipta prostrata</i> Yerba de Tajo S2	muddy soil <sup>3</sup> , shorelines	7E						✓				✓			✓		
ASTERACEAE <i>Erigeron glabellus</i> Smooth Fleabane S1	prairies and open ground <sup>3</sup>	4W					✓										
ASTERACEAE <i>Erigeron humilis</i> Low Fleabane S1	NO INFORMATION																
ASTERACEAE <i>Eupatorium altissimum</i> Tall Boneset S1	Alvars, open woodlands and savannah, adventive along railways and roadsides	7E(1)	✓														
ASTERACEAE <i>Eupatorium maculatum</i> ssp. <i>bruneri</i> Spotted Joe Pye Weed S2?	NO INFORMATION																
ASTERACEAE <i>Eupatorium purpureum</i> Purple-jointed Joe Pye Weed S3	Moist woodlands, usuallu riparian	6E(1,7); 7E						✓								✓	
ASTERACEAE <i>Euthamia gymnospermoides</i> Viscid Grass-leaved Goldenrod S1	prairie	7E(1)					✓										
ASTERACEAE <i>Gnaphalium sylvaticum</i> Woodland Cudweed S3?	Open woos and edges															✓	✓
ASTERACEAE <i>Heterotheca villosa</i> Prairie Golden Aster S1	dry, open areas, prairies and waste places, occasionally adventive along railways	3S,4S;3W,4W					✓		✓								
ASTERACEAE <i>Hieracium paniculatum</i> Panicled Hawkweed S2	dry open woods and sandy slopes	6E(10);7E(2,3,5)														✓	
ASTERACEAE <i>Hieracium venosum</i> Rattlesnake Hawkweed S2	open, dry sand woods	5E(1);6E(1,9); 7E(2,3,5)														✓	
ASTERACEAE <i>Hymenoxys herbacea</i> Lakeside Daisy S2	open limestone pavement <sup>3</sup>	5E(2);6E(14)	✓														
ASTERACEAE <i>Krigia biflora</i> Two-flowered Cynthia S2	Open woodlands, meadows and fields, prairies	7E(1,2)					✓									✓	
ASTERACEAE <i>Lactuca floridana</i> Woodland Blue Lettuce S2	dry, deciduous woods	7E(1)														✓	✓
ASTERACEAE <i>Liatris aspera</i> Rough Blazing-star S2	open, sandy woods, dry roadsides and sandy prairies	6E(1)					✓			✓							✓
ASTERACEAE <i>Liatris cylindracea</i> Cylindrical Blazing-star S3	limestone and dolostone pavement, prairies <sup>3</sup> , open woods	5E(2);6E(7,8)	✓				✓			✓						✓	
ASTERACEAE <i>Liatris spicata</i> <sup>7</sup> Dense Blazing-star S3	Prairies, savannahs and open sandy woods, occasionally adventive	7E(1,2)					✓			✓						✓	✓
ASTERACEAE <i>Matricaria maritima</i> ssp. <i>phaeocephala</i> Chamomile S3?																	

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ASTERACEAE <i>Ratibida pinnata</i> Gray-headed Coneflower S2 S3	Prairies, open sandy woods	7E(1,2)	✓				✓						✓			✓	✓
ASTERACEAE <i>Senecio eremophilus</i> Groundsel S1	Talus slopes	4W(2)															
ASTERACEAE <i>Senecio obovatus</i> Roundleaf Ragwort S3	rocky woods and shaded shorelines, alvar woodland	5E(2);6E(4,14)	✓													✓	
ASTERACEAE <i>Senecio plattensis</i> Prairie Ragwort S2S3	Prairies, savannahs and dry open places <sup>3</sup>	7E(2)					✓			✓							
ASTERACEAE <i>Silphium laciniatum</i> Compass Plant S1	prairies, probably one native site, rarely introduced elsewhere <sup>3</sup> , along railways	7E(2)					✓										
ASTERACEAE <i>Silphium perfoliatum</i> Cup Plant S2	riverbanks, floodplains and moist fields; planted, escaped elsewhere <sup>3</sup>	7E(1,2)						✓									
ASTERACEAE <i>Silphium terebinthinaceum</i> Prairie Dock S1	wet prairies, thickets and roadsides	7E(1)					✓										
ASTERACEAE <i>Solidago arguta</i> Sharp-leaved Goldenrod S3	mesic to dry woods	6E(1,3,5,7,9,13); 7E(3,4)														✓	
ASTERACEAE <i>Solidago houghtonii</i> Houghton's Goldenrod S2	marshy limestone pavements and shorelines	5E(2,3); 6E(14)	✓									✓			✓		
ASTERACEAE <i>Solidago missouriensis</i> Missouri Goldenrod S2	dry soils and rocky slopes	3W;4W;5S							✓								
ASTERACEAE <i>Solidago nemoralis</i> ssp. <i>decemflora</i> Gray-stemmed Goldenrod S1 S2	open granitic bedrock ledges on lakeshores; open mesic grasslands	4S					✓		✓								
ASTERACEAE <i>Solidago puberula</i> Downy Goldenrod S2	open, sandy disturbed areas	6E(11,12)															✓
ASTERACEAE <i>Solidago riddellii</i> Riddell's Goldenrod S2 S3	wet, marshy ground and old fields, prairies	7E(1,2)					✓	✓			✓				✓		
ASTERACEAE <i>Solidago rigida</i> ssp. <i>rigida</i> Stiff Goldenrod S3	dry, sandy soil, prairies and waste places	4W					✓										
ASTERACEAE <i>Solidago simplex</i> ssp. <i>randii</i> Goldenrod S3	dolomitic limestone cliffs and pavements, rocky woods and sand dunes	5E(2); 6E(4,14)			✓	✓					✓					✓	
ASTERACEAE <i>Solidago speciosa</i> Showy Goldenrod S1	prairies and dry thickets	7E(1)					✓										
ASTERACEAE <i>Solidago ulmifolia</i> Elm-leaf Goldenrod S1	woods, fields	7E(1,2)														✓	
ASTERACEAE <i>Verbesina alternifolia</i> Wingstem S2 S3	clay banks, sandy thickets, river banks and rich alluvial woods	7E(1,2)						✓								✓	✓
ASTERACEAE <i>Vernonia gigantea</i> Giant Ironweed S3	mesic prairies, thickets, moist woods, roadsides and grassy meadows	7E(1,2,3)					✓									✓	✓
AZOLLACEAE <i>Azolla caroliniana</i> Mosquito Fern S1	floating on still water of lakes, ponds, creeks and streams; often associated with <i>Lemna</i> ; may form dense mats on water's surface	6E(10);7E(3)		✓											✓		
BETULACEAE <i>Betula lenta</i> Cherry Birch S1	woods	7E(3)														✓	
BETULACEAE <i>Betula neoalaskana</i> Alaska Paper Birch S2	Precambrian rocks and acid, peaty soils <sup>3</sup>	2W							✓								
BETULACEAE <i>Betula occidentalis</i> Spring Birch S3	ridges, slopes, streambanks <sup>3</sup>	2E;2W															
BIGNONIACEAE <i>Campsis radicans</i> Trumpet Creeper S2	open, deciduous woods and hedgerows	7E(1)						✓								✓	✓
BORAGINACEAE <i>Lithospermum canescens</i> Hoary Puccoon S3?	sandy, or rocky prairie remnants and open woodlands	6E, 7, 5S, 4W					✓		✓							✓	
BORAGINACEAE <i>Lithospermum incisum</i> Fringed Puccoon S1	dune,savannah, sandy woods and dry ground	7E(1,2,3,4)				✓			✓							✓	
BORAGINACEAE <i>Lithospermum latifolium</i> Broad-leaved Puccoon S3	river floodplains, woods and open areas near edges of woods	6E(1,5);7E(1,2,4,6)						✓								✓	✓

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BORAGINACEAE <i>Mertensia virginica</i> Bluebells S3	moist or wet deciduous woods and thickets, usually on floodplains, occasional escape from cultivation	6E(6);7E						✓								✓	
BORAGINACEAE <i>Myosotis macrosperma</i> Large-seeded Forget-me-not S1	low, wet woods	7E(1)														✓	
BORAGINACEAE <i>Onosmodium molle</i> Soft-hairy False-gromwell S2	river banks and flats and dry rocky woods, fields, gravelly soil; stable sand dune ridges	6E(1,2,5);7E(1,2)				✓		✓								✓	
BRASSICACEAE <i>Arabis alpina</i> Alpine Rock-cress S1	calcareous shoreline gravels and meadows	1E										✓					
BRASSICACEAE <i>Arabis arenicola var. arenicola</i> Rock-cress S1	blowout sandy beach ridge	1E										✓					
BRASSICACEAE <i>Arabis arenicola var. pubescens</i> Rock-cress S2	sandy and gravelly beach ridges	1E										✓					
BRASSICACEAE <i>Arabis divaricata var. dacotica</i> Purple Rock-cress S3?	NO INFORMATION																
BRASSICACEAE <i>Arabis hirsuta ssp. adpressipilis</i> Hairy Rock-cress S1	Rocky calcareous woodland and edges	7E														✓	✓
BRASSICACEAE <i>Arabis shortii</i> Toothed Rock-cress S2	shady thickets and rocky woodland	7E(1)														✓	✓
BRASSICACEAE <i>Cardamine pratensis ssp. angustifolia</i> Cuckoo Flower S2 S3	NO INFORMATION																
BRASSICACEAE <i>Cochlearia groenlandica</i> Greenland Cochlearia S1	coastal supratidal meadow at edges of dry sand ridges	1E										✓					
BRASSICACEAE <i>Draba alpina</i> Alpine Whitlow-grass S2?																	
BRASSICACEAE <i>Draba cinerea</i> Gray-leaved Whitlow-grass S1	open sand or gravel of dry coastal beach ridges	1E										✓					
BRASSICACEAE <i>Draba nivalis</i> Little Snow Whitlow-grass S1	raised and open sand-gravel beach ridges	1E										✓					
BRASSICACEAE <i>Draba reptans</i> Carolina Whitlow-grass S2	dry sandy areas, dry open flats, limestone pavements	6E(9,15);7E(1,2)	✓			✓						✓					
BRASSICACEAE <i>Neobeckia aquatica</i> Lake-cress S3?	lakes and rivers <sup>3</sup>	5E(5);6E(10,12)		✓												✓	
BRASSICACEAE <i>Subularia aquatica</i> Water Axlwort S3?	Shallow sandy lake margins	5E(5)		✓								✓				✓	
CACTACEAE <i>Opuntia fragilis</i> Little Prickly Pear Cactus S2	exposed bedrock, rocky open areas	4W;5E(11);5S							✓								
CACTACEAE <i>Opuntia humifusa</i> <sup>F</sup> Eastern Prickly Pear Cactus S1	dry sandy soil in open savannahs, sand dunes and ridges	7E(1)				✓				✓							
CALLITRICHACEAE <i>Callitriche heterophylla</i> Large Water Starwort S2?	Ponds, lakes, muddy shores <sup>4</sup>			✓								✓				✓	
CAPRIFOLIACEAE <i>Triosteum angustifolium</i> Narrow-leaved Tinker's-weed S1	dry open calcareous woods	7E(1)	✓													✓	
CAPRIFOLIACEAE <i>Triosteum perfoliatum</i> Perfoliate Tinker's-weed S1	Rich deciduous woods	7E(1)														✓	
CARYOPHYLLACEAE <i>Arenaria humifusa</i> Low Sandwort S2 S3	wet, often mossy places along rivers and streams	1E;3W						✓									
CARYOPHYLLACEAE <i>Cerastium alpinum</i> Alpine Chickweed S3?																	
CARYOPHYLLACEAE <i>Cerastium brachypodium</i> Short-pedicelled Chickweed S1	Open alvar pavement	6E	✓														
CARYOPHYLLACEAE <i>Cerastium velutinum</i> Long-hairy Chickweed S2	Lopen limestone woods and edges	7E(1)	✓						✓							✓	✓
CARYOPHYLLACEAE <i>Minuartia groenlandica</i> Mountain Sandwort S1	cliff tops and open rock summits of Precambrian intrusive uplands of Sutton Ridges	1E			✓												

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CARYOPHYLLACEAE <i>Minuartia rubella</i> Boreal Stitchwort S1	gravelly ground, usually more or less calcareous	1E															
CARYOPHYLLACEAE <i>Moehringia macrophylla</i> Large-leaved Sandwort S2	rocky ledges, open rocky woodlands and talus slopes	3E;3W;4W			√				√			√				√	
CARYOPHYLLACEAE <i>Paronychia canadensis</i> Tall Forked Chickweed S1	woods	7E(1)														√	
CARYOPHYLLACEAE <i>Paronychia fastigiata</i> Low Forked Chickweed S1	clay or clay-loam soil in clearings and opening of mixed deciduous woodlands	7E(3,5)														√	
CARYOPHYLLACEAE <i>Silene involucrata</i> Arctic Campion S1 S2	gravelly tundra	1E												√			
CARYOPHYLLACEAE <i>Silene uralensis</i> Apetalous Catchfly S1	tundra, usually damp gravelly places	1E												√			
CARYOPHYLLACEAE <i>Spergularia canadensis</i> Canada Sand-spurrey S2	salt marshes and shores	2E										√			√		
CARYOPHYLLACEAE <i>Stellaria humifusa</i> Low Starwort S2 S3	salt marshes and coastal ponds	1E;2E													√		
CELASTRACEAE <i>Euonymus atropurpurea</i> Burning Bush S3	dry to moist thickets and woods	7E														√	√
CERATOPHYLLACEAE <i>Ceratophyllum echinatum</i> Spiny Hornwort S3		5E		√											√		
CHENOPODIACEAE <i>Chenopodium bushianum</i> Village Goosefoot S1 S2	Disturbed open areas, often riparian							√				√					
CHENOPODIACEAE <i>Chenopodium foggii</i> Fogg's Goosefoot S2	sandy areas on limestone under oak or pine-oak forests	6E(6,10);7E(1,2)							√							√	
CHENOPODIACEAE <i>Chenopodium leptophyllum</i> Narrow-leaved Goosefoot S1	sandy blowouts under deciduous vegetation; shaley cliffs	7E(1)			√											√	
CHENOPODIACEAE <i>Chenopodium pratericola</i> Goosefoot S1 S3	Open rocky ground	4W, 5S					√		√								
CHENOPODIACEAE <i>Chenopodium standleyanum</i> Woodland Goosefoot S2	dry deciduous or mixed forests	7E(1)														√	
CHENOPODIACEAE <i>Corispermum americanum</i> Bugseed S1 S3	Dry, sandy open areas					√											
CHENOPODIACEAE <i>Corispermum hookeri</i> Bugseed S1 S3	Dry, sandy open areas					√											
CHENOPODIACEAE <i>Corispermum pallasii</i> Bugseed S1 S3	Dry, sandy open areas					√											
CHENOPODIACEAE <i>Corispermum villosum</i> Bugseed S1 S3	Dry, sandy open areas					√											
CHENOPODIACEAE <i>Suaeda calceoliformis</i> Sea-blite S2	saline and alkaline areas, rarely adventive on saline roadsides in S. Ont.	2E;7E(6)										√			√		
CISTACEAE <i>Hudsonia tomentosa</i> Sand-heather S2 S3	sand dunes and other dry sandy open areas, occasionally adventive especially on dry roadsides	5E(12)				√											
CISTACEAE <i>Lechea pulchella</i> Pretty Pinweed S1	prairies and open fields and sandy woods	7E(1)					√									√	
CISTACEAE <i>Lechea villosa</i> Hairy Pinweed S3	dry prairies and open sandy woods	7E(1,2)					√									√	
CLUSIACEAE <i>Hypericum gentianoides</i> Orange-grass St. John's-wort S1	open sandy areas, prairies	7E(1)					√										
CLUSIACEAE <i>Hypericum prolificum</i> Shrubby St. John's-wort S2	fields, prairies and open woods	6E(1);7E(1,2)					√									√	√
CLUSIACEAE <i>Hypericum sphaerocarpum</i> Round-fruited St. John's-wort S1	Disturbed open areas, perhaps adventive																
CLUSIACEAE <i>Triadenum virginicum</i> Marsh St. John's-wort S3	bogs, swamps, beaver dams, sandy, muddy or rocky lake shorelines	5E(7,8,11); 6E(6,10,12)										√			√		

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COMMELINACEAE <i>Tradescantia ohioensis</i> Ohio Spiderwort S2	prairies, wet meadows, moist open oak woodlands	7E(1)					✓									✓	✓
CONVOLVULACEAE <i>Ipomoea pandurata</i> Wild Sweet Potato S1	sandy clearings in woods or fields	7E(1)														✓	✓
CUSCUTACEAE <i>Cuscuta campestris</i> Field Dodder S2	marsh, creek banks and pond margins; also cultivated fields - parasitic on <i>Ambrosia, Aster, Bidens, Circaea, Daucus, Linum, Malva, Medicago, Melilotus, Polygonum, Trifolium</i>	6E(1,6,12); 7E(1,5,6)						✓							✓		
CUSCUTACEAE <i>Cuscuta cephalanthi</i> Button-bush Dodder S2	moist ditches, creek and pond edges and floodplain woods - parasitic on <i>Aster, Decodon, Lythrum, Polygonum, Pycnanthemum, Solidago</i>	4W; 6E(10); 7E(1,5)						✓								✓	
CUSCUTACEAE <i>Cuscuta coryli</i> Hazel Dodder S1	open, moist tall-grass prairie and meadows - parasitic on <i>Aster, Heliathus, Monarda, Rubus, Solidago</i>	7E(1,2)					✓										
CYPERACEAE <i>Blysmus rufus</i> Red Bulrush S3	coastal and estuarine sites; upper intertidal marshes; most frequently supertidal meadow marshes in <i>Festuca rubra</i> communities	1E; 2E										✓			✓		
CYPERACEAE <i>Bulbostylis capillaris</i> Hair-like Bulbostylis S3?	on lakeshores or river margins in moist or dry sand or gravel or cracks in rocks, sometimes adventive along railways and roadsides	5E(7,8,10,12); 6E(9,10); 7E(1)							✓		✓						
CYPERACEAE <i>Carex aggregata</i> Smooth Clustered Sedge S1	dry clearings in open hackberry forest	7E(1)														✓	✓
CYPERACEAE <i>Carex alata</i> Winged Oval Sedge S1	swampy deciduous woods	7E(2)													✓	✓	
CYPERACEAE <i>Carex albicans</i> var. <i>albicans</i> Blunt-scaled Oak Sedge S2	Open sandy or rocky woods	7E														✓	
CYPERACEAE <i>Carex albicans</i> var. <i>emmonsii</i> Sharp-scaled Oak Sedge S1	Heath bog	7E														✓	
CYPERACEAE <i>Carex amphibola</i> Gray Sedge S2	Moist woods	7E														✓	
CYPERACEAE <i>Carex annectens</i> var. <i>annectens</i> Large Yellow Fox Sedge S1	Open alvar woodland	6E	✓													✓	
CYPERACEAE <i>Carex annectens</i> var. <i>xanthocarpa</i> Small Yellow Fox Sedge S2	Dry open woods, edges and fields	7E					✓									✓	✓
CYPERACEAE <i>Carex appalachica</i> Appalachian Sedge S2 S3	Rich woods	7E														✓	
CYPERACEAE <i>Carex assiniboensis</i> Assiniboia Sedge S1	wet-mesic forests	5S														✓	
CYPERACEAE <i>Carex atlantica</i> Atlantic Star Sedge S1	clearings in shrubby bogs	6E(12)													✓		
CYPERACEAE <i>Carex atratifformis</i> Black Sedge S2	rocky shores, wet rocks and cliffs (north shore of Lake Superior)	3W; 4W			✓						✓						
CYPERACEAE <i>Carex bicknellii</i> Copper-shouldered Oval Sedge S2	open prairie and open oak woods, usually dry	7E(1)					✓		✓							✓	
CYPERACEAE <i>Carex bigelowii</i> Bigelow's Sedge S1	summit rocks and cliff faces	1E			✓												
CYPERACEAE <i>Carex capillaris</i> ssp. <i>krausei</i> Krause's Sedge S1	NO INFORMATION																
CYPERACEAE <i>Carex careyana</i> Carey's Wood Sedge S2	mesic to dry-mesic hardwood forests, floodplain woods	6E(1); 7E(2)						✓								✓	
CYPERACEAE <i>Carex conoidea</i> Prairie Gray Sedge S3	rock crevices, sand, gravel along lake and river shores in north; sandy grassland associated with prairie species in south	4W; 5E(10); 6E(6); 7E(1,6)					✓				✓						
CYPERACEAE <i>Carex crus-corvi</i> Crowfoot Fox Sedge S1	wet woodland depressions	7E(1)														✓	
CYPERACEAE <i>Carex davisi</i> Awned Graceful Sedge S2	wet-mesic hardwood forests and margins, floodplain woods	7E(1,2)						✓								✓	✓
CYPERACEAE <i>Carex emoryi</i> Riverbank Sedge S3	open sedge meadows along river bottoms	7E(1,2)						✓							✓		

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
CYPERACEAE <i>Carex festucacea</i> Fescue Oval Sedge S1	Open oak woodland and edges	7E(1)														✓	✓
CYPERACEAE <i>Carex folliculata</i> Follicle Sedge S3	bogs, wet shorelines and cedar swamps	5E(7,8,10);6E(6)													✓		
CYPERACEAE <i>Carex formosa</i> Awnless Graceful Sedge S3 S4	Forests and edges	6E(1,5,6,8,9,15); 7E(6)														✓	✓
CYPERACEAE <i>Carex frankii</i> Bristly Cattail Sedge S2	moist habitats	7E(1)						✓							✓	✓	
CYPERACEAE <i>Carex glaucodea</i> Blue Sedge S1	open oak woodlands and open hawthorn meadows on clay soil	7E(1,5)						✓								✓	
CYPERACEAE <i>Carex gracilescens</i> Slender Wood Sedge S3	wet-mesic hardwood forest	6E(1);7E(1,2,3,4,5)														✓	✓
CYPERACEAE <i>Carex haydenii</i> Long-scaled Tussock Sedge S2	open and shaded wet habitats	3E;4E;5E(7,10)						✓							✓		
CYPERACEAE <i>Carex heleonastes</i> Hudson Bay Sedge S2	fens	1E													✓		
CYPERACEAE <i>Carex hirsutella</i> Hairy Green Sedge S3	dry-mesic to wet-mesic hardwood forests, edges and old fields	7E(1,3,5)														✓	
CYPERACEAE <i>Carex inops</i> Sun Sedge S1	open, dry, sand prairies	7E(2)					✓										
CYPERACEAE <i>Carex jamesii</i> Grass Sedge S3	dry-mesic to wet-mesic hardwood forests often on floodplains	6E(1);7E(1,2,3,6)						✓								✓	
CYPERACEAE <i>Carex juniperorum</i> Juniper Sedge S1	alvar woodlands <sup>3</sup>	6E(15)	✓													✓	
CYPERACEAE <i>Carex leavenworthii</i> Dwarf Bracted Sedge S1	dry places, alvar woodlands	7E(1)	✓													✓	
CYPERACEAE <i>Carex loliacea</i> Sedge S2	bogs, muskegs and black spruce forests	2E;2W;3E;3W;4W													✓	✓	
CYPERACEAE <i>Carex lupuliformis</i> Knobbed Hop Sedge S1	wet wooded habitats	6E(1), 7E													✓	✓	
CYPERACEAE <i>Carex marina</i> Sedge S3?																	
CYPERACEAE <i>Carex meadii</i> Mead's Stiff Sedge S2	prairies	7E(1)					✓										
CYPERACEAE <i>Carex mesochorea</i> Midland Bracted Sedge S1	dry, open woodland <sup>3</sup>	7E(2)					✓										
CYPERACEAE <i>Carex misandra</i> Short-leaf Sedge S1	NO INFORMATION																
CYPERACEAE <i>Carex muskingumensis</i> Swamp Oval Sedge S2	wet-mesic hardwood forests	7E(1)													✓	✓	
CYPERACEAE <i>Carex nigromarginata</i> Black-edged Sedge S1	open deciduous woods on sand	7E(2)														✓	
CYPERACEAE <i>Carex novae-angliae</i> New England Sedge S3	mesic to mesic-wet hardwood forests	5E(6,8,10);6E(12)														✓	
CYPERACEAE <i>Carex obtusata</i> Dryland Blunt Sedge S1	open, dry granitic outcrops (in Ontario); dry prairies and open conifer-grasslands	5S					✓		✓								
CYPERACEAE <i>Carex oligocarpa</i> Eastern Few-fruited Sedge S2	dry woods and banks, alvar woodland	6E(13,15);7E(1,2)	✓													✓	✓
CYPERACEAE <i>Carex praticola</i> Large-fruited Oval Sedge S2?	Open woods, talus slopes, cliffs	4W, 5S			✓			✓				✓				✓	
CYPERACEAE <i>Carex raymondii</i> Raymond's Sedge S2	sandy gravel beach ridges	1E										✓					
CYPERACEAE <i>Carex retroflexa</i> Reflexed Sedge S1	dry grassy openings in rich hardwoods and grassy woodland edges	7E(1)														✓	✓

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CYPERACEAE <i>Carex rossii</i> Ross's Sedge S2	Cliffs and talus slopes	3W, 4W				√			√				√				
CYPERACEAE <i>Carex schweinitzii</i> Schweinitz's Sedge S3	Moist woodland and seepages	6E, 7E						√			√				√	√	
CYPERACEAE <i>Carex seorsa</i> Swamp Star Sedge S2	peaty edges of woodland pools, swamp forests	7E(5)													√	√	√
CYPERACEAE <i>Carex shortiana</i> Short's Sedge S1	Hardwood forests and meadows	7E(1)						√								√	
CYPERACEAE <i>Carex squarrosa</i> Narrow-leaved Cattail Sedge S2	mesic to wet hardwood forests, often on floodplains	7E(1,3)						√								√	
CYPERACEAE <i>Carex suberecta</i> Wedge-fruited Oval Sedge S2	moist meadows and shores, prairies	7E(1)					√					√			√		
CYPERACEAE <i>Carex supina</i> Sedge S1	cliff tops	4W			√												
CYPERACEAE <i>Carex swanii</i> Downy Green Sedge S3	Openings and edges in hardwood forests	7E(1,2,5)														√	√
CYPERACEAE <i>Carex tetanica</i> Common Stiff Sedge S3	moist grassland, sandy shores and ditches, prairies, seepages	2E;3E;5S;7E(1,2,8)					√	√			√	√					
CYPERACEAE <i>Carex tinctoria</i> Tinged Oval Sedge S1	Woodland edges	4W															√
CYPERACEAE <i>Carex trichocarpa</i> Hairy-fruited Lake Sedge S3	Riverbanks	7E(4,6)						√							√		
CYPERACEAE <i>Carex trisperma</i> var. <i>billingsii</i> Billings' Three-seeded Bog Sedge S2 S3	bogs	5E, 6E, 7E													√		
CYPERACEAE <i>Carex typhina</i> Common Cattail Sedge S2	wet-mesic hardwood forests	6E(12)						√							√	√	
CYPERACEAE <i>Carex virescens</i> Slender Green Sedge S3	Dry and mesic hardwood forests	7E(2)														√	√
CYPERACEAE <i>Carex wiegandii</i> Wiegand's Sedge S1	black spruce bogs and alder swamps	3E;4E;6E(12)													√		
CYPERACEAE <i>Carex wilddenowii</i> Willdenow's Sedge S1	moist to dry deciduous forests, mostly acidic soils	7E(5)														√	
CYPERACEAE <i>Carex williamsii</i> William's Sedge S1	moist tundra	1E												√			
CYPERACEAE <i>Carex xerantica</i> Dry Sedge S1	Cliff tops, talus slopes	4W			√							√					
CYPERACEAE <i>Cyperus dentatus</i> Toothed Flat Sedge S1	open, sandy shores of lakes and rivers	6E(12)										√			√		
CYPERACEAE <i>Cyperus erythrorhizos</i> Red-rooted Nut Sedge S3	marshes and moist shores	7E(1,2)										√			√		
CYPERACEAE <i>Cyperus flavescens</i> Yellow Flat Sedge S2	damp sand, moist shores	7E(2)										√			√		
CYPERACEAE <i>Cyperus houghtonii</i> Smooth Sand Sedge S3?	Dry open sandy areas	5E(10,11); 6E(6,10,12)				√						√					
CYPERACEAE <i>Cyperus schweinitzii</i> Rough Sand Sedge S3	Dry open sandy areas	5S, 7E				√						√					
CYPERACEAE <i>Eleocharis engelmannii</i> Engelmann's Spike-rush S1	moist to wet, open, sandy to muddy ground; usually shores	7E(1,2)										√			√		
CYPERACEAE <i>Eleocharis equisetoides</i> Horse-tail Spike-rush S1	wet marshes and shallow water	7E(2)		√											√		
CYPERACEAE <i>Eleocharis geniculata</i> Knee Spike-rush S1	wet and sandy shores	7E(1,2)										√			√		
CYPERACEAE <i>Eleocharis halophila</i> Salt-marsh Spike-rush S3?	wetlands	2E									√				√		



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CYPERACEAE <i>Eleocharis kamschatica</i> Kamtschatka Spike-rush S2	supratidal meadows and shallow water	2E		√											√		
CYPERACEAE <i>Eleocharis nitida</i> Slender Spike-rush S2	seeps	7E										√			√		
CYPERACEAE <i>Eleocharis quadrangulata</i> Angled Spike-rush S1	ponds, wet meadows and shores	7E(1,2)										√			√		
CYPERACEAE <i>Eleocharis rostellata</i> Wicket Spike-rush S3	fens and shores	6E(5,6,14)										√			√		
CYPERACEAE <i>Eriophorum callitrix</i> Sheathed Cotton-grass S2	NO INFORMATION																
CYPERACEAE <i>Eriophorum scheuchzeri</i> Scheuchzer Cotton-grass S2 S3	NO INFORMATION																
CYPERACEAE <i>Fimbristylis puberula</i> Hairy Fimbristylis S1	prairie	7E					√										
CYPERACEAE <i>Kobresia bellardii</i> Kobresia S1	low shrub fens and willow thickets	1E													√		
CYPERACEAE <i>Lipocarpa micrantha</i> <sup>T,T</sup> Dwarf Bulrush S1	Moist sandy shores	7E(1)										√			√		
CYPERACEAE <i>Scirpus clintonii</i> Clinton's Bulrush S2	prairie and open woods in south; shorelines, rock crevices in north	3E;4W;5E(10); 6E(6);7E(1,3,4)					√		√			√				√	
CYPERACEAE <i>Scirpus expansus</i> Woodland Bulrush S1	Seeps, stream edges	7E									√				√		
CYPERACEAE <i>Scirpus georgianus</i> Bristleless Dark Green Bulrush S1?															√		
CYPERACEAE <i>Scirpus heterochaetus</i> Slender Bulrush S2	marshes and shores	2W;3E;3W;4W; 5E(5,7);6E(12)										√			√		
CYPERACEAE <i>Scirpus maritimus</i> Saltmarsh Bulrush S2 S3	coastal and estuarine intertidal marshes and supertidal meadow	1E;2E										√			√		
CYPERACEAE <i>Scirpus purshianus</i> Pursh's Tufted Bulrush S1 S2	wet shores and beaches											√			√		
CYPERACEAE <i>Scirpus smithii</i> Smith's Tufted Bulrush S2?	wet shores and beaches	5E(7);6E(1,6,9,12, 13); 7E(2,4)										√			√		
CYPERACEAE <i>Scirpus verecundus</i> √ Small-flowered Bulrush S1	Dry, open slopes in hardwood forests	7E(3,4)														√	
CYPERACEAE <i>Scleria pauciflora</i> Few-flowered Nut-rush S1	Sandy, prairies remnant	7E(1)					√										
CYPERACEAE <i>Scleria triglomerata</i> Tall Nut-rush S1	moist prairie and thicket	7E(1,4,6)					√										
CYPERACEAE <i>Scleria verticillata</i> Low Nut-rush S3	moist, sandy meadows and shores	6E(2,6,8,14,15); 7E(2)										√					
CYPERACEAE <i>Carex gravida</i> Long-awned Bracted Sedge S1	dry open ground, prairie	5S;7E(1)					√	√									
DRYOPTERIDACEAE <i>Cystopteris laurentiana</i> Laurentian Bladder Fern S2 S3	cliffs	6E, 3W			√				√								
DRYOPTERIDACEAE <i>Cystopteris montana</i> Mountain Bladder Fern S1	rich, moist calcareous soil in mixed and coniferous woods	3W;4W														√	
DRYOPTERIDACEAE <i>Cystopteris proluxa</i> Lowland Brittle Fern S2	open deciduous woodlands on sandy loam; alluvial river terraces and hillsides that border streams or rivers	7E(1,2,5,6)						√								√	
DRYOPTERIDACEAE <i>Gymnocarpium jessoense</i> Northern Oak Fern S3	cliffs	3W, 4W			√				√			√					
DRYOPTERIDACEAE <i>Gymnocarpium robertianum</i> Limestone Oak Fern S2	ledges and slopes in calcareous rock; occasionally in sphagnum mats in cedar swamps	3E;3W;4E;4W; 5E(2,11)							√						√		
DRYOPTERIDACEAE <i>Polystichum braunii</i> Braun's Holly Fern S3	deciduous mixed woods on talus slopes, rocky ravines and streambeds	3W;4E;4W;5E(2); 6E(1,7)			√			√	√							√	

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Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
DRYOPTERIDACEAE <i>Woodsia alpina</i> Northern Woodsia S2	moist, cool, often shaded crevices in calcareous cliffs	3E;3W;4E;4W; 5E(8,11)			✓												
DRYOPTERIDACEAE <i>Woodsia glabella</i> Smooth Woodsia S3	shaded, calcareous rock crevices <sup>3</sup>	3E;3W;4E;4W;5E(1,9,10)			✓							✓					
DRYOPTERIDACEAE <i>Woodsia obtusa</i> <sup>7</sup> Blunt-lobed Woodsia S1	open woods on granite slopes	6E(9,10)							✓							✓	
DRYOPTERIDACEAE <i>Woodsia oregana</i> Western Woodsia S3	shaded, calcareous ledges and cliffs	3W;4W;5E(2,10); 6E(4,11,14)	✓		✓				✓			✓					
DRYOPTERIDACEAE <i>Woodsia scopulina</i> Rocky Mountain Woodsia S3	moist to dry shaded crevices and ledges in acidic rock	3W;4E;4W;5E(9,10)			✓				✓								
ELATINACEAE <i>Elatine triandra</i> Long-stemmed Waterwort S3	shallow water along sandy or muddy lakeshores and river margins	4W;5E(3,4,7,10,11); 5S; 6E(12)		✓				✓				✓			✓		
ERICACEAE <i>Kalmia microphylla</i> Alpine Bog-laurel S2?	mossy, inter-ridge tundra and spruce woodland	1E												✓		✓	
ERICACEAE <i>Phyllocladus caerulea</i> Mountain-heath S1	forested beach ridges	1E										✓		✓			
ERICACEAE <i>Rhododendron canadense</i> Rhodora S1	drier areas of bogs	6E(12)													✓		
ERICACEAE <i>Vaccinium membranaceum</i> Mountain Bilberry S1	moist, mature white birch, balsam fir, white cedar forests on shallow, acid soils	3E														✓	
ERICACEAE <i>Vaccinium ovalifolium</i> Blue Bilberry S2	mixed woods	3E;4E;5E(1)														✓	
ERICACEAE <i>Vaccinium stamineum</i> <sup>7</sup> Deerberry S1	woods with shallow soils	6E(10);7E(4,5)														✓	✓
EUPHORBIACEAE <i>Euphorbia commutata</i> Tinted Spurge S1	dry, shady slopes, rocky thickets, limestone barrens and ridges	5E(11);6E(15);7E(2)	✓						✓							✓	
EUPHORBIACEAE <i>Euphorbia obtusata</i> Blunt-leaved Spurge S1	open, oak savannahs, fields and roadsides	7E(1)								✓						✓	✓
FABACEAE <i>Amorpha fruticosa</i> Indigo Bush S1	rich open or partially shaded ground and roadsides	7E(1)						✓									
FABACEAE <i>Astragalus americanus</i> Milk-vetch S1	forest openings on riverbanks	1E						✓								✓	
FABACEAE <i>Astragalus australis</i> Milk-vetch S1	sandy-gravel and boulder beaches	4E										✓					
FABACEAE <i>Astragalus neglectus</i> Cooper's Milk-vetch S3	open woods, frequently on limestone plains <sup>3</sup>	6E(9,11, 14), 7E	✓					✓								✓	✓
FABACEAE <i>Astragalus tenellus</i> Milk-vetch S1	dry, south-facing juniper-aspen river slopes	2E						✓									
FABACEAE <i>Baptisia tinctoria</i> Yellow Wild Indigo S2	prairies, roadsides and sandy open woods	7E(1,2)					✓		✓							✓	
FABACEAE <i>Cassia hebecarpa</i> Wild Senna S1	roadsides, riverflats and open fields	7E(1,5)						✓									
FABACEAE <i>Dalea purpurea</i> Purple Prairie Clover S1	open, sandy or rocky areas	5S;7E(2)					✓		✓								
FABACEAE <i>Desmodium canescens</i> Hoary Tick-trefoil S2	sandy woods and thickets and open river banks	7E(1,2)					✓	✓								✓	✓
FABACEAE <i>Desmodium cuspidatum</i> Bracted Tick-trefoil S3	Rich, open woodlands	7E							✓							✓	
FABACEAE <i>Desmodium rotundifolium</i> Round-leaved Tick-trefoil S2	sandy woods	6E(10);7E(1,2,3,5,6)					✓		✓							✓	✓
FABACEAE <i>Gleditsia triacanthos</i> Honey Locust S2	mesic to wet forests and forest edges on rich bottomlands; in Ontario also on stabilized sand spits and dunes, frequently planted	7E(1,2,3,5)				✓									✓	✓	
FABACEAE <i>Glycyrrhiza lepidota</i> Wild Licorice S1	open, sandy or rocky riverbanks	5S;6E(1);7E(5)						✓				✓					

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FABACEAE <i>Gymnocladus dioica</i> <sup>T</sup> Kentucky Coffee-tree S2	floodplains, edges of marshes and shallow soil over limestone	7E(1,2,6)	✓					✓								✓	✓
FABACEAE <i>Lespedeza violacea</i> Violet Bush-clover S1	open woods and gravel beaches	7E(1,3,5)										✓				✓	✓
FABACEAE <i>Lespedeza virginica</i> <sup>F</sup> Slender Bush-clover S1	prairies and thickets	7E(1)					✓									✓	
FABACEAE <i>Lupinus perennis</i> Wild Lupine S3	dry, sandy oak savannahs and prairies; open forests and forest edges	6E(13);7E					✓			✓						✓	✓
FABACEAE <i>Oxytropis deflexa</i> var. <i>foliolosa</i> Stemless Locoweed S2	open river flats and banks and beach ridges	1E;2W						✓				✓					
FABACEAE <i>Oxytropis deflexa</i> var. <i>sericea</i> Blue Pendant-pod Oxytrope S1	littoral areas	1E		✓													
FABACEAE <i>Oxytropis splendens</i> Showy Locoweed S3	shores <sup>3</sup> , cliffs	3W, 4W			✓			✓				✓					
FABACEAE <i>Oxytropis viscida</i> var. <i>hudsonica</i> Locoweed S3	beach ridges and floodplains	1E;2E;3E						✓				✓					
FABACEAE <i>Oxytropis viscida</i> var. <i>viscida</i> Stemless Locoweed S1	cliffs	4W			✓												
FABACEAE <i>Strophostyles helvola</i> Trailing Wild Bean S3	sand beaches and prairies	6E(10);7E					✓					✓				✓	
FABACEAE <i>Tephrosia virginiana</i> <sup>T</sup> Goat's Rue S1	dry, sandy open woods	7E(2)								✓							✓
FABACEAE <i>Vicia caroliniana</i> Wood Vetch S2	dry woods, thickets and prairies	6E(15);7E(1,2,3,5,6)					✓	✓									✓
FAGACEAE <i>Castanea dentata</i> <sup>T</sup> American Chestnut S3	moist to well drained forests on sand, occasionally heavy soils	7E															✓
FAGACEAE <i>Quercus ellipsoidalis</i> Northern Pin Oak S3	open habitats or on edges of closed forests	4W;5S;7E(2,5,6)							✓								✓
FAGACEAE <i>Quercus ilicifolia</i> Scrub Oak S1	Precambrian rock outcrops	5E(11)							✓								✓
FAGACEAE <i>Quercus palustris</i> Pin Oak S3	lowland deciduous forests (wet soils)	7E(1,3,5)								✓						✓	✓
FAGACEAE <i>Quercus prinoides</i> Dwarf Chinquapin Oak S2	open, dry sandy places, savannahs	7E(2)				✓				✓							
FAGACEAE <i>Quercus shumardii</i> <sup>F</sup> Shumard's Oak S3	mesic and mesic -hydric sites on clay and clay-loam soils with poor drainage	7E(1,2,3)														✓	✓
FUMARIACEAE <i>Corydalis flavula</i> Yellow Corydalis S2	sandy or rocky woods and lakeshores	7E(1,2,5)										✓					✓
GENTIANACEAE <i>Bartonia paniculata</i> <sup>V</sup> Twining Bartonia S1	sphagnum bogs	5E(7)															✓
GENTIANACEAE <i>Bartonia virginica</i> Yellow Screwstem S2	open to slightly shaded moist <i>Polytrichum</i> and <i>Sphagnum</i> mats	5E(7);6E(1,6)															✓
GENTIANACEAE <i>Frasera carolinensis</i> <sup>V</sup> Carolina Gentian S1	woodlands on sandy and clay soils	7E(2,3,4,5,6)															✓
GENTIANACEAE <i>Gentiana flavida</i> <sup>F</sup> White Prairie Gentian S1	dry to mesic oak savannah on silty-loam soil	6E(8);7E(1)								✓							
GENTIANACEAE <i>Gentianella quinquefolia</i> Stiff Gentian S2	moist soil, roadsides, streambanks and edges of woods; prairies	6E(2,3,5,9,10); 7E(1,2,4,6)					✓	✓									✓
HIPPOCASTANACEAE <i>Aesculus glabra</i> Ohio Buckeye S1	mesic deciduous, riparian woods and roadsides	7E(1)						✓									✓
HYDROPHYLLACEAE <i>Hydrophyllum appendiculatum</i> Appendaged Water Leaf S2	deciduous woods	7E(1,2,6)						✓									✓
HYDROPHYLLACEAE <i>Phacelia franklinii</i> Wild Heliotrope S2	sand and gravel roadsides, lakeshores and river banks	3W;4W						✓				✓	✓				

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
HYDROPHYLLACEAE <i>Phacelia purshii</i> Miami Mist S1	rich woods and clearings, alvar woodland	7E(1)	✓													✓	
IRIDACEAE <i>Iris brevicaulis</i> Leafy Blue-flag S1	wet woods	7E(1)													✓	✓	
IRIDACEAE <i>Iris lacustris</i> Dwarf Lake Iris S3	dunes, sandy woods and shallow soil over limestone	5E(2);6E(2,14)	✓			✓						✓			✓	✓	
IRIDACEAE <i>Sisyrinchium albidum</i> White Blue-eyed Grass S1	prairies	7E(1)					✓										
ISOETACEAE <i>Isoetes engelmannii</i> Appalachian Quillwort S1	lakes <sup>3</sup>	5E		✓								✓					
ISOETACEAE <i>Isoetes riparia</i> River Bank Quillwort S3	aquatic, on mud or gravel in shallow water	5E(11);6E(8,9,12)		✓								✓					
ISOETACEAE <i>Isoetes tuckermanii</i> Tuckerman's Quillwort S1	lakes <sup>3</sup>	5E		✓								✓					
JUGLANDACEAE <i>Carya laciniosa</i> Big Shellbark Hickory S3	wet or wet -mesic deciduous forests	7E(1,2,3,5)													✓	✓	
JUGLANDACEAE <i>Carya ovalis</i> Sweet Pignut Hickory S3	dry to dry-mesic deciduous forests and savannahs	7E(1,2,3,4,5)								✓						✓	
JUNACEAE <i>Juncus acuminatus</i> Sharp-fruit Rush S3	sandy and gravelly shorelines, ditches and gravel pits	6E(6)					✓					✓			✓		
JUNACEAE <i>Juncus arcticus</i> Arctic Rush S2S3	brackish marshes, treed fens, sand dunes, beach ridges and disturbed gravelly areas	1E				✓						✓			✓		
JUNACEAE <i>Juncus biflorus</i> Two-flowered Rush S1	open, mesic, sandy prairies	7E(1,2)					✓										
JUNACEAE <i>Juncus brachycarpus</i> Short-fruited Rush S1	moist, sandy sites in tall-grass prairies	7E(1)					✓										
JUNACEAE <i>Juncus castaneus</i> Chestnut Rush S3?	bogs															✓	
JUNACEAE <i>Juncus greenii</i> Greene's Rush S3	beaches, crevices, in limestone; roadsides and dry open prairies	5E(7);6E(12,15); 7E(1,2)				✓	✓					✓					
JUNACEAE <i>Juncus interior</i> Inland Rush S2	crevices in granite along lakeshores and open woodland in prairies	4S;4W;5S					✓		✓			✓					
JUNACEAE <i>Juncus longistylis</i> Long-styled Rush S3	riparian	4W(1), 2E														✓	
JUNACEAE <i>Juncus marginatus</i> Grass-leaved Rush S2	open, mesic, sandy prairies	7E(1,2,5)					✓										
JUNACEAE <i>Juncus militaris</i> Bayonet Rush S3S4	lake and river shores <sup>3</sup>	5E(7,8)										✓			✓		
JUNACEAE <i>Juncus secundus</i> Secund Rush S2	crevices in granitic rocks in open areas, alvars	5E(10);6E(9,10,11)	✓						✓								
JUNACEAE <i>Juncus subtilis</i> Creeping Rush S3	Sandy shores	5E										✓					
JUNACEAE <i>Juncus tenuis var. anthelatus</i> Path Rush S1	prairie	7E(1)					✓										
JUNACEAE <i>Juncus vaseyi</i> Vasey's Rush S3	sandy, open areas <sup>3</sup>	7E(1), 3w, 5s					✓		✓								
JUNACEAE <i>Luzula confusa</i> Northern Wood-rush S1	dry, turf tundra heath, rocky slopes and ledges	1E												✓			
JUNACEAE <i>Luzula echinata</i> Wood-rush S1?	Open woods	7E(1)														✓	
LAMIACEAE <i>Blephilia ciliata</i> Downy Woodmint S1	open ground and thickets on limestone plains	7E(1)	✓														
LAMIACEAE <i>Blephilia hirsuta</i> Hairy Woodmint S1	Woodlands, often rocky, especially rivers							✓								✓	

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
LAMIACEAE <i>Lycopus asper</i> Rough Water Horehound S2	Marshes, shorelines	6E, 7E										√			√		
LAMIACEAE <i>Lycopus rubellus</i> Stalked Water Horehound S2	swampy thickets, woodlands and forests	7E(1,2,5)													√	√	
LAMIACEAE <i>Lycopus virginicus</i> Virginia Bugleweed S2	wet ground	7E(1)						√				√			√		
LAMIACEAE <i>Monarda didyma</i> Bee-balm S3	moist woods, swampy thickets and roadsides	5E(8); 6E(1,2,5,11,12); 7E						√							√	√	
LAMIACEAE <i>Monarda punctata</i> Spotted Bee-balm S1	sandy open areas	6E(8,12);7E(1,2)															
LAMIACEAE <i>Monarda x media</i> Purple Bergamot S1	Woods and edges	7E														√	√
LAMIACEAE <i>Pycnanthemum incanum</i> <sup>F/E</sup> Hoary Mountain-mint S1	dry woodlands in partial shade of oaks and in openings	7E(3)														√	
LAMIACEAE <i>Pycnanthemum tenuifolium</i> Slender Mountain-mint S3	Dry open areas	6E, 7E															
LAMIACEAE <i>Pycnanthemum verticillatum</i> var. <i>pilosum</i> Hairy Mountain-mint S1	openings in sandy woodlands	7E(1)														√	
LAMIACEAE <i>Pycnanthemum verticillatum</i> var. <i>verticillatum</i> Whorled Mountain-mint S1?	NO INFORMATION	7E															
LAMIACEAE <i>Scutellaria nervosa</i> Veined Skullcap S1	marshy woodlands or forests	7E(1)						√							√	√	
LAMIACEAE <i>Scutellaria parvula</i> var. <i>leonardii</i> Stonard's Small Skullcap S1	Prairies, rock outcrops	5S, 7E					√		√								
LAMIACEAE <i>Stachys pilosa</i> Hedge Nettle S1	shorelines	7E										√					
LAMIACEAE <i>Trichostema dichotomum</i> Forked Blue Curls S1	sandy openings in woodlands	7E(2)														√	√
LENTIBULARIACEAE <i>Pinguicula villosa</i> Hairy Butterwort S2S3	tundra and peaty soils <sup>3</sup>	1E												√	√		
LENTIBULARIACEAE <i>Utricularia geminiscapa</i> Hidden-fruited Bladderwort S3	bog pools	5E(7,8);6E(9)													√		
LILIACEAE <i>Aletris farinosa</i> <sup>T</sup> Colic Root S2	rich sandy woods and thickets; grassy openings in forests; meadows and dry to mesic prairies	7E(1,2)					√			√						√	
LILIACEAE <i>Allium burdickii</i> Narrow-leaved Wild Leek S1?	Rich woods	6E, 7E							√							√	
LILIACEAE <i>Allium cernuum</i> Nodding Onion S2	dry woods, rocky banks and prairies	5S;7E(1)	√				√		√							√	
LILIACEAE <i>Allium stellatum</i> Prairie Onion S2	rocky or sandy prairies; dry savannahs and hills	5S					√		√	√							
LILIACEAE <i>Camassia scilloides</i> <sup>V</sup> Wild Hyacinth S2	fields, meadows and moist open deciduous woods	7E(1)													√	√	
LILIACEAE <i>Hypoxis hirsuta</i> Yellow Star-grass S3	dry open sandy woods; wet to dry meadows and prairies	6E(15);7E					√			√							
LILIACEAE <i>Lilium canadense</i> ssp. <i>editorum</i> Red Canada Lily S2?	woodlands	6E, 7E														√	√
LILIACEAE <i>Trillium flexipes</i> <sup>F</sup> Drooping Trillium S1	rich deciduous woods often along river flats or on heavy basic soils associated with limestone	7E(1,2,3)						√								√	
LILIACEAE <i>Uvularia perfoliata</i> Perfoliate Bellwort S1	rich, mesic woodlands; dry oak-pine woods and thickets	7E(3,5)														√	
LINACEAE <i>Linum lewisii</i> Prairie Flax S2	sandy or gravelly marine shorelines (beach ridges) and limestone outcroppings	1E							√			√					
LINACEAE <i>Linum medium</i> var. <i>medium</i> Small Yellow Flax S3	rocky, sandy and muddy lakeshores	5E, 6E, 7E(2)										√			√		

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
LINACEAE <i>Linum medium</i> var. <i>texanum</i> Small Yellow Flax S1	moist, sandy soil along or near lakeshores	7E(2)										✓			✓		
LINACEAE <i>Linum striatum</i> Ridged Yellow Flax S1	moist, rocky, sandy lakeshores and turfy riverbanks	5E(7)						✓				✓			✓		
LINACEAE <i>Linum sulcatum</i> Grooved Yellow Flax S3	prairies and dry, sandy open sites <sup>3</sup>	6E(7,12); 7E(2)					✓			✓							
LINACEAE <i>Linum virginianum</i> Slender Yellow Flax S2	dry, open woods and adjacent fields	7E														✓	
LYCOPODIACEAE <i>Diphasiastrum sabinifolium</i> Ground-fir S3	sandy woods and meadows <sup>3</sup>	3E; 3W; 4E; 5E															✓
LYCOPODIACEAE <i>Hyperzia appalachiana</i> Appalachian Fir Clubmoss S1	Cliffs, talus slopes	3W, 4W			✓			✓				✓					
LYCOPODIACEAE <i>Hyperzia selago</i> Fir Clubmoss S3S4	rocky forest openings, bogs <sup>3</sup> , cliffs	1E; 3E; 3W; 4E; 4W; 4E; 4S; 5S; 6E			✓							✓			✓	✓	✓
LYTHRACEAE <i>Ammannia robusta</i> <sup>F</sup> Scarlet Ammannia S1	mudflats and wet sandy beaches	7E(1)										✓			✓		
LYTHRACEAE <i>Lythrum alatum</i> Winged Loosestrife S3	wet meadows, moist prairies, open woods and wet, disturbed areas	6E(1,11,13); 7E(1,2,5,6)					✓								✓	✓	
LYTHRACEAE <i>Rotala ramosioi</i> <sup>F</sup> Toothcup S1	moist, fields, shores	5e(11); 7E(2)										✓			✓		
MAGNOLIACEAE <i>Magnolia acuminata</i> <sup>E,E</sup> Cucumber Tree S2	rich, partly open, moist to wet woods	7E(2,3,5)														✓	
MALVACEAE <i>Hibiscus moscheutos</i> <sup>V</sup> Swamp Rose Mallow S3	swamp marshes, wet woods and ponds	7E(1,2,3,5)													✓	✓	
MALVACEAE <i>Sida hermaphrodita</i> Virginia Mallow S1	Open shores and thickets	7E						✓									✓
MELASTOMATACEAE <i>Rhexia virginica</i> Virginia Meadow-beauty S3S4	exposed sandy and coarse gravel shorelines with sandy or peaty soils; mainly southern aspects	5E(7,8,9)										✓			✓		
MONOTROPACEAE <i>Pteropora andromedea</i> Giant Pinedrops S2	conifer woods, under pine <sup>3</sup>	4E; 5E; 6E(11,12); 7E														✓	✓
MORACEAE <i>Morus rubra</i> <sup>T</sup> Red Mulberry S2	moist woods and wooded river valleys	6E(7);7E(1,3,4,5)														✓	✓
MYRICACEAE <i>Myrica pensylvanica</i> Bayberry S1	moist sandy woods and marsh margins	7E(2)													✓	✓	
NAJADACEAE <i>Najas gracillima</i> Thread-like Naiad S2	shallow water of lakes and ponds with sandy to peaty substrate	6E(9);7E(2);5E(10)		✓											✓		
NELUMBONACEAE <i>Nelumbo lutea</i> Lotus S2	shallow open water in marshes	6E(6);7E(1,2)		✓											✓		
NYMPHAEACEAE <i>Nuphar advena</i> Yellow Pond Lily S3	alkaline and neutral water 0.5 to 2 m deep	7E		✓													
NYSSACEAE <i>Nyssa sylvatica</i> Black Gum S3	dry to wet woods and savannahs	7E(1,2,3,5)								✓					✓	✓	
OLEACEAE <i>Fraxinus profunda</i> Pumpkin Ash S2	Moist woods	7E						✓							✓	✓	
OLEACEAE <i>Fraxinus quadrangulata</i> <sup>T,V</sup> Blue Ash S3	floodplains, shallow soil over limestone	7E(1,2)	✓					✓								✓	✓
ONAGRACEAE <i>Epilobium hornemannii</i> Homemann's Willow-herb S1	NO INFORMATION	5E															
ONAGRACEAE <i>Gaura biennis</i> Biennial Gaura S2	sandy soil, dry prairies and roadsides	7E(1,2,3,4,5)					✓										
ONAGRACEAE <i>Ludwigia alternifolia</i> Seedbox S1	prairies and ditch edges	7E(1)					✓								✓		
ONAGRACEAE <i>Ludwigia polycarpa</i> Many-fruited False-loosestrife S2	wet meadows, peat bogs, and wet disturbed areas	7E(1,2,5)													✓		

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ONAGRACEAE <i>Oenothera clelandii</i> Sand Evening-primrose S1	dry sand in open relict prairie under scattered black oaks and sassafras	6E(13); 7E(6)					√										√
ONAGRACEAE <i>Oenothera pilosella</i> Prairie Sundrops S2	moist edges of woods and waste ground, prairie	6E(9);7E(2,3,5,6)					√									√	√
ONAGRACEAE <i>Oenothera villosa</i> Hairy Evening-primrose S2?	Dry open ground	7E															
OPHIOGLOSSACEAE <i>Botrychium acuminatum</i> Pointed Moonwort S1	NO INFORMATION																
OPHIOGLOSSACEAE <i>Botrychium campestre</i> Prairie Dunewort S1	NO INFORMATION																
OPHIOGLOSSACEAE <i>Botrychium hesperium</i> Western Moonwort S1	grassy slopes, edges of lakes, sandy fields and flat roadside ditches	5E(2);3W;4W										√					
OPHIOGLOSSACEAE <i>Botrychium lanceolatum</i> Narrow Triangle Moonwort S3	dry to moist open woods and rich mature deciduous forest	5E(7,8,9,11); 6E(6,10,12,13); 7E(4,5)														√	
OPHIOGLOSSACEAE <i>Botrychium oneidense</i> Blunt-lobed Grapefern S3	Open woods, sandy old fields	6E, 7E														√	√
OPHIOGLOSSACEAE <i>Botrychium pallidum</i> Pale Moonwort S1	NO INFORMATION																
OPHIOGLOSSACEAE <i>Botrychium pseudopinnatum</i> False Northwestern Moonwort S1	Sandy old fields	3W															
OPHIOGLOSSACEAE <i>Botrychium rugulosum</i> Rugulose Grapefern S2	sandy or silty soil in young <i>Populus-Prunus-Acer</i> woods; at edges of <i>Pinus resinosa</i> woods and rich <i>Acer-Fagus</i> woods, often with <i>Pteridium</i> ; along roadsides under <i>Rubus</i> ; and in open exposed, grassy areas near margins of sandy lakes	5E(7);6E(1,6,12,13); 7E(2,6)														√	√
OPHIOGLOSSACEAE <i>Botrychium spathulatum</i> Spoon-leaf Moonwort S1	NO INFORMATION																
ORCHIDACEAE <i>Aplectrum hyemale</i> Puttyroot S2	moist deciduous woods	6E(6,9,10,12,14); 7E(1,2,3)															√
ORCHIDACEAE <i>Coeloglossum viride</i> var. <i>viride</i> Bracted Orchid S2?	NO INFORMATION																
ORCHIDACEAE <i>Corallorhiza odontorhiza</i> Autumn Coral-root S2	open, oak-pine woods or occasionally in open, red pine or white pine plantations in sandy areas	7E(2,3)															√
ORCHIDACEAE <i>Cypripedium arietinum</i> Ram's-head Lady's-slipper S3	cedar woodland on limestone plains, wooded fens and sandy sites <sup>3</sup>	6E(9,11,14)	√												√	√	√
ORCHIDACEAE <i>Cypripedium calceolus</i> var. <i>planipetalum</i> Flat-petalled Yellow Lady's-slipper S1	open, white spruce forests on limestone	2E															√
ORCHIDACEAE <i>Cypripedium candidum</i> <sup>E,E</sup> Small White Lady's-slipper S1	dry to mesic prairies, marshes, marl fens, and wet grassy meadows	6E(2,9);7E(1,2)					√								√		
ORCHIDACEAE <i>Isotria medeoloides</i> <sup>E,E</sup> Small Whorled Pogonia S1	sandy, open deciduous woods	7E(2)															√
ORCHIDACEAE <i>Isotria verticillata</i> <sup>E,E</sup> Large Whorled Pogonia S1	moist deciduous woods	7E(2)													√	√	
ORCHIDACEAE <i>Liparis illinoensis</i> <sup>7</sup> Purple Twayblade S2	dry sandy sites in open mixed woods, pine plantations and sumac thickets	6E(5);7E(1,2)					√										√
ORCHIDACEAE <i>Listera auriculata</i> Auricled Twayblade S3	moist, shaded sandy soil <sup>4</sup>	2E; 2W; 3E; 3W; 5E						√							√	√	
ORCHIDACEAE <i>Listera australis</i> Southern Twayblade S2	in clearings in sphagnum bogs	5E(7,10,11);6E(12)													√		
ORCHIDACEAE <i>Listera borealis</i> Northern Twayblade S2	cool, mossy woods and in thickets along river and lake shores	1E;2E;3W						√				√					√
ORCHIDACEAE <i>Malaxis paludosa</i> Bog Adder's-mouth S1	sphagnum bogs and muskegs	3E;3W;4W														√	
ORCHIDACEAE <i>Platanthera blephariglottis</i> White Fringed Orchid S3S4	open sphagnum bogs	5E(7,10); 6E(5,6,7,12);7E(5)														√	

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ORCHIDACEAE <i>Platanthera flava</i> var. <i>herbiola</i> Tuberled Orchid S3	wet, sandy or peaty open sites <sup>3</sup>	5E; 6E; 7E										✓			✓		
ORCHIDACEAE <i>Platanthera grandiflora</i> Large Purple Fringed Orchid S1	damp meadows and open woods	6E(12)														✓	
ORCHIDACEAE <i>Platanthera leucophaea</i> <sup>4</sup> Eastern Prairie White Fringed Orchid S2	fens, wet meadows, marshes and prairies	6E(5,6,11);7E(1,6)					✓								✓		
ORCHIDACEAE <i>Platanthera macrophylla</i> Large Round-leaved Orchid S2	moist mixed woods	5E(7);6E(1,6,14)														✓	
ORCHIDACEAE <i>Spiranthes lacera</i> var. <i>gracilis</i> Southern Slender Ladies'-tresses S1	grassy meadows, prairies	7E(1,2,3,4)					✓										
ORCHIDACEAE <i>Spiranthes magnicamporum</i> Great Plains Ladies'-tresses S3	sandy meadows, shores and roadsides	6E(4);7E(1,20)					✓					✓					
ORCHIDACEAE <i>Spiranthes ochroleuca</i> Yellow Ladies'-tresses S2	sandy meadows, prairies and roadsides	6E(10);7E(1,2,5)					✓										
ORCHIDACEAE <i>Spiranthes ovalis</i> Oval Ladies'-tresses S1	wet to mesic prairie on calcareous sandy loam and clay soils	7E(1)	✓				✓										
ORCHIDACEAE <i>Triphora trianthophora</i> <sup>7</sup> Nodding Pogonia S1	rich deciduous woods	7E(1)															✓
OROBANCHACEAE <i>Orobancha fasciculata</i> Clustered Broomrape S1	shallow soil over limestone	5E(2)	✓														
PAPAVERACEAE <i>Stylophorum diphyllum</i> <sup>E,E</sup> Wood Poppy S1	rich, wooded riverbanks	6E(1);7E(6)						✓									✓
PINACEAE <i>Pinus rigida</i> Pitch Pine S2S3	shallow soil on quartzite and granite-gneiss outcroppings or ridges; exposed Potsdam sandstone pavements. Often associated with oaks	6E(10,11)							✓								
PLANTAGINACEAE <i>Plantago cordata</i> <sup>E,E</sup> Heart-leaved Plantain S1	moist woods, streams, swamps and wet ditches	6E(1);7E(2)						✓							✓	✓	
PLUMBAGINACEAE <i>Armeria maritima</i> Western Thrift S3	sandy plains and treeless beach ridges	1E										✓		✓			
POACEAE <i>Agrostis hyemalis</i> Tickle Grass S1	Dry, open ground on limestone	7E(1)	✓														
POACEAE <i>Agrostis mertensii</i> Northern Bentgrass S1	NO INFORMATION																
POACEAE <i>Alopecurus alpinus</i> Alpine Foxtail S3	moist, ericaceous heath, low willow thickets, and mossy geminoid meadows in the maritime tundra zone	1E												✓			
POACEAE <i>Ammophila breviligulata</i> Marram Grass S3	Sandy shores	5E, 6E, 7E				✓						✓					
POACEAE <i>Arctagrostis latifolia</i> Polar Grass S3	damp, mossy tundra and turf inter-ridge depressions	1E												✓			
POACEAE <i>Arctophila fulva</i> Pendent Grass S3	shallow, coastal inter-ridge meadow marsh and supratidal freshwater meadow marsh	1E													✓		
POACEAE <i>Aristida basiramea</i> Forked Three-awn Grass S1	open, dry, acid sand barrens	6E(6)															
POACEAE <i>Aristida dichotoma</i> Shinners Three-awn Grass S1	rocky shores <sup>3</sup>	5E(11)							✓			✓					
POACEAE <i>Aristida longespica</i> var. <i>geniculata</i> Three-awn Grass S2	dry sandy soil <sup>3</sup>	7E(1)					✓										
POACEAE <i>Aristida longespica</i> var. <i>longespica</i> Three-awn Grass S2	dry to moist sandy fields and sandy openings in prairies	6E(15); 7E(1,2)					✓										
POACEAE <i>Aristida purpurascens</i> Arrow Feather Three-awn Grass S1	dry prairie	7E(1)					✓										
POACEAE <i>Bouteloua curtipendula</i> Side-oats Grama S2	dry, open limestone plains and prairie openings in dry, sandy oak woods	6E(8,15);7E(2,6)	✓				✓		✓								✓
POACEAE <i>Bromus nottowayanus</i> Nottoway Brome Grass S1?	woodlands	7E														✓	



Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
POACEAE <i>Calamagrostis deschampsoides</i> Reed Grass S1	brackish marsh, above the high tide level, in shallow peat	1E													✓		
POACEAE <i>Calamagrostis lapponica</i> Reed Grass S1	dry Precambrian outcrop and clay banks	1E;2E;2W							✓								
POACEAE <i>Calamagrostis purpurascens</i> Purple Reed Grass S1	exposed cliffs and talus slopes	3W;4W			✓								✓				
POACEAE <i>Calamovilfa longifolia var. magna</i> Sand Reed S3	active sand dunes, open sand plains, and openings in forests on stabilized sand dunes	5E(2,3);6E(2);7E(2)				✓											
POACEAE <i>Danthonia compressa</i> Flat-stemmed Oat Grass S3	moist to dry open woods, especially in clearings	5E(10);7E(5)							✓							✓	
POACEAE <i>Deschampsia atropurpurea</i> Mountain Hairgrass S1	open spruce-lichen woodland	1E														✓	
POACEAE <i>Diarrhena obovata</i> Beak Grass S1	Riparian woodlands	7E						✓								✓	
POACEAE <i>Digitaria cognatum</i> Fall Witch Grass S1	dry, sandy fields; prairies; and sand barrens	7E					✓										
POACEAE <i>Echinochloa walteri</i> Walter's Barnyard Grass S3	marshes along streams and lakes; sometimes on recent, sandy strands along the shores of the Great Lakes	6E(12); 7E(11,2)						✓				✓			✓		
POACEAE <i>Elymus lanceolatus ssp. psammophilus</i> Great Lakes Wheatgrass S3	Great Lakes sand dunes	5E, 6E, 7E				✓						✓					
POACEAE <i>Elymus trachycaulus ssp. violaceus</i> Wheatgrass S2	NO INFORMATION																
POACEAE <i>Elymus virginicus var. submuticus</i> Wild Rye S2?	NO INFORMATION																
POACEAE <i>Eragrostis capillaris</i> Lace Grass S1	Dry open sandy ground	7E(1)															
POACEAE <i>Eragrostis pilosa</i> Hairy Love Grass S1	Alvar, disturbed open ground	7E(1)	✓														
POACEAE <i>Eragrostis spectabilis</i> Purple Love Grass S2	dry, sandy fields; prairies; sand barrens and beaches	5E(11);7E(1,2,3,5,6)					✓					✓					
POACEAE <i>Festuca hallii</i> Rough Fescue S1	sandy soil under jack pine, prairies, cliff top, rock outcrop	4W, 5S			✓		✓		✓							✓	
POACEAE <i>Festuca richardsonii</i> Arctic Fescue S1?	NO INFORMATION																
POACEAE <i>Hierochloa alpina</i> Alpine Sweet Grass S1	exposed rocky summits and cliff tops of Precambrian intrusive outcrops	1E			✓				✓								
POACEAE <i>Hierochloa pauciflora</i> Holy Grass S2	open graminoid coastal meadows, shallow peat fens, and inter-ridge tundra	1E												✓	✓		
POACEAE <i>Koeleria macrantha</i> June Grass S2	prairies; stabilized sand dunes; openings in dry, sandy forests	4W;5S;7E(1,2,6)				✓			✓							✓	
POACEAE <i>Muhlenbergia racemosa</i> Upland Wild Timothy S1	rock outcrops and talus slopes, prairie remnants	3W;4W;5S					✓		✓				✓				
POACEAE <i>Muhlenbergia richardsonis</i> Soft-leaf Muhly S2	Fens, seepages	4W, 6E, 7E						✓	✓		✓						
POACEAE <i>Muhlenbergia sobolifera</i> Rock Satin Grass S1	Alvar woodland	7E(1)	✓														
POACEAE <i>Muhlenbergia sylvatica</i> Woodland Satin Grass S2	rich deciduous woods, open rocky riparian areas	5E, 6E(8,11);7E(4)						✓				✓				✓	
POACEAE <i>Muhlenbergia tenuiflora</i> Slender Satin Grass S2	rich deciduous forest, often on rocky or sandy soil	6E(1,8,10);7E(2,3,6)						✓								✓	
POACEAE <i>Panicum clandestinum</i> Broadleaf Panic Grass S2	deciduous forests, especially along streams; thickets and moist meadows	7E(1,2)						✓								✓	
POACEAE <i>Panicum dichotomum</i> Forked Panic Grass S2	dry to mesic sandy or rocky deciduous forest	6E(10);7E(2,3,4,5)														✓	

Significant Wildlife Habitat Technical Guide - Appendix G – Table G-5

Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
POACEAE <i>Panicum gattingeri</i> Gattinger's Panic Grass S3	sandy or muddy shores of lakes and rivers, roadsides	6E, 7E(2,4,6)						✓				✓					
POACEAE <i>Panicum leibergii</i> var. <i>baldwinii</i> Baldwin's Panic Grass S1S2	dry to mesic prairies, sandy fields and sandy or rocky openings in oak forest; open, rocky riverbanks in northern Ontario	2E;3E;4W; 5S					✓	✓	✓							✓	
POACEAE <i>Panicum leibergii</i> var. <i>leibergii</i> Leiberg's Panic Grass S1	prairie	6E, 7E					✓	✓	✓								
POACEAE <i>Panicum meridionale</i> Mat Panic Grass S1	moist, sandy, acid fields and shores	7E(1)					✓					✓					
POACEAE <i>Panicum perlongum</i> Long-stalked Panic Grass S1S2	dry prairies; dry, sandy fields; and dry sandy or rocky openings in deciduous or mixed forest	4W;5S;6E(13);7E(6)					✓		✓							✓	
POACEAE <i>Panicum rigidulum</i> Redtop Panic Grass S2S3	sandy and rocky shores of lakes and rivers, in acid soil	5E(7);6E(9)										✓			✓		
POACEAE <i>Panicum sphaerocarpon</i> var. <i>sphaerocarpon</i> Round-fruited Panic Grass S3	moist to dry sandy fields, prairies and lakeshores, in acid soil	6E(6);7E(1,2,6)					✓					✓					
POACEAE <i>Panicum spretum</i> Sand Panic Grass S2	sandy, acid lakeshores	6E(6)										✓			✓		
POACEAE <i>Panicum villosissimum</i> White-haired Panic Grass S3	Dry open sandy woods, prairie	6E, 7E					✓		✓							✓	✓
POACEAE <i>Paspalum setaceum</i> Slender Paspalum S2	Dry, open ground, prairie	7E					✓										
POACEAE <i>Phleum alpinum</i> Mountain Timothy S1S2	dry, open coastal beach ridges; riverside meadows	1E;2E						✓				✓					
POACEAE <i>Poa arctica</i> Arctic Bluegrass S2?	NO INFORMATION																
POACEAE <i>Poa interior</i> Inland Bluegrass S3?	Cliffs, rock outcrops	3W, 4W			✓			✓									
POACEAE <i>Poa languida</i> Weak Bluegrass S3	Woods						✓									✓	
POACEAE <i>Poa secunda</i> Canby Bluegrass S1	Cliffs	4W, 6E			✓												
POACEAE <i>Poa sylvestris</i> Woodland Bluegrass S2	rich, deciduous forests	7E(1)						✓								✓	
POACEAE <i>Puccinellia ambigua</i> Alberton Alkali Grass S2	NO INFORMATION																
POACEAE <i>Puccinellia tenella</i> Alkali Grass S1	NO INFORMATION																
POACEAE <i>Puccinellia vaginata</i> Arctic Tussock Alkali Grass S1	NO INFORMATION																
POACEAE <i>Sphenopholis nitida</i> Shiny Wedge Grass S1	rich deciduous forests	7E(2,3,5)														✓	
POACEAE <i>Sphenopholis obtusata</i> Prairie Wedge Grass S1	mesic to dry prairies, meadows, forest edges, and open forests	7E(1)					✓									✓	✓
POACEAE <i>Sporobolus asper</i> Rough Dropseed S1S2	dry prairies; dry, sandy meadows and shores; roadsides and railway tracks	6E(1,6,12);7E(1,2,5,6)					✓					✓					
POACEAE <i>Sporobolus heterolepis</i> Prairie Dropseed S2	moist to dry limestone plains and calcareous shores	5E(2,3); 6E(8,12,14,15)	✓				✓										
POACEAE <i>Sporobolus ozarkanus</i> Ozark Dropseed S2?	Dry, open ground	6E, 7E	✓									✓					
POACEAE <i>Stipa comata</i> Needle-and-thread S1	prairie	4W, 5S					✓										
POACEAE <i>Stipa spartea</i> Porcupine Grass S3	dry prairies, open stabilized dunes, and sandy openings in dry deciduous or coniferous forests on dunes	5E(3,4,12);5S; 6E(6,14); 7E(2,5)				✓	✓	✓									
POACEAE <i>Torreyochloa pallida</i> Torrey's Manna Grass S2	shallow water and wet shores at edges of streams and ponds; boggy depressions in forests	6E(9,11,12);7E(5)		✓				✓							✓	✓	

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POACEAE <i>Trisetum melicoides</i> Purple False Oats S3S4	Rocky shores, moist woodlands	5E, 6E										✓			✓	✓	✓
POACEAE <i>Vulpia octoflora</i> Slender Eight-flowered Fescue S2	dry, sandy meadows; openings in dry sandy forests; open, stabilized dunes	6E(10,15);7E(1,2,3,6)				✓										✓	
POACEAE <i>Zizania aquatica</i> var. <i>subbrevis</i> Wild Rice S1	Wetlands, marshes	6E													✓		
POACEAE <i>Bromus inermis</i> ssp. <i>pumpellianus</i> Pumpell's Brome Grass S1	sandy soils, prairie relicts <sup>3</sup>	2W;3W;4W;5S					✓	✓									
PODOSTEMACEAE <i>Podostemum ceratophyllum</i> Threadfoot S2	waterfalls and rapids of fast-moving rivers and streams; anchored to submersed rocky substrata by fleshy holdfasts and roothair-like rhizoids	5E(10,11);6E(9,12)		✓													
POLEMONIACEAE <i>Phlox subulata</i> Moss Phlox S1?	open, sandy woods, and sandy roadsides and lakeshores	6E(10,12);7E(2,3,4)							✓		✓					✓	
POLYGALACEAE <i>Polygala incarnata</i> <sup>f</sup> Pink Milkwort S1	open, wet-mesic to dry sandy prairies; wet meadows	7E(1)					✓								✓		
POLYGONACEAE <i>Koenigia islandica</i> Iceland Koenigia S1	salt marsh growing with <i>Puccinellia</i> and <i>Ranunculus</i> ; grows on mudflats and in gravelly, wet places throughout its range	1E													✓		
POLYGONACEAE <i>Polygonella articulata</i> Coast Jointweed S3	sandy beaches of rivers and lakeshores; sand dunes and hills, sand barrens and sandy openings in jack pine forests; often adventive along sandy or gravelly roadsides and railway embankments	4E;5E(1,5,10,11,12)				✓		✓								✓	
POLYGONACEAE <i>Polygonum arifolium</i> Halberd-leaved Tear-thumb S3	wet mucky soil under alders at margin of peat bogs; wet, shaded ground along streams, ponds, swamps and lakes; rich thickets and marshy borders; wet depressions and seepage areas in mature hardwood forests	5E(7);6E(10,12); 7E(1,2,5)						✓			✓				✓	✓	
POLYGONACEAE <i>Polygonum careyi</i> Carey's Smartweed S3S4	Beaver ponds, wet, sandy or mucky soil at edges of marshes, meadows, swamps, lakes, rivers, streams, ponds; moist, gravel-clay roadsides and ditches	5E(5,7,8,9,10)						✓			✓				✓		
POLYGONACEAE <i>Polygonum caurianum</i> Alaska Knotweed S2?																	
POLYGONACEAE <i>Polygonum erectum</i> Erect Knotweed S1	moist, silty, clay/loam soils in areas subject to persistent disturbance; edges of actively cultivated fields, dirt farm roads, trampled cattle pastures, farmyards; wet stream edges and floodplain washout areas	7E(1,2,3,4)	✓					✓									
POLYGONACEAE <i>Polygonum franktonii</i> Frankton's Knotweed S1?	shorelines										✓						
POLYGONACEAE <i>Polygonum tenue</i> Slender Knotweed S2	dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits	7E(1,2)														✓	
POLYGONACEAE <i>Rumex altissimus</i> Pale Dock S2?	River edges	7E						✓							✓		
POLYPODIACEAE <i>Polypodium appalachianum</i> Appalachian Polypody S1	shaded rock outcrops <sup>3</sup>	6E(10)			✓			✓									
POLYPODIACEAE <i>Polypodium sibiricum</i> Siberian Polypody S1	NO INFORMATION																
PORTULACACEAE <i>Montia fontana</i> Fountain Miner's-lettuce S2	low, shrub meadows; shallow and mossy inter-ridge areas	1E						✓									
POTAMOGETONACEAE <i>Potamogeton bicupulatus</i> Snail-seed Pondweed S3S4	acidic waters of ponds, lakes and streams, often over sandy or peaty substrates	5E(7,8,9)		✓											✓		
POTAMOGETONACEAE <i>Potamogeton confervoides</i> Algae-like Pondweed S2	acidic waters of bogs, lakes and slow-moving streams	5E(3,7,8)		✓											✓		
POTAMOGETONACEAE <i>Potamogeton hillii</i> <sup>v</sup> Hill's Pondweed S2	highly alkaline waters of ditches, beaver ponds and slow-moving cold waters	5E(2);6E(1,5,14); 7E(2)		✓											✓		
POTAMOGETONACEAE <i>Potamogeton subsibiricus</i> Pondweed S1	fresh to brackish water	1E		✓											✓		
PRIMULACEAE <i>Glaux maritima</i> Sea Milkwort S3?	inter- and supra-tidal areas of salt marshes	2E													✓		
PRIMULACEAE <i>Lysimachia hybrida</i> River Loosestripe S1	Floodplain, woodland edges	4W															✓

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PTERIDACEAE <i>Cryptogramma acrostichoides</i> Mountain Parsley S2	rock crevices, cliffs and dry open woods	2W,4S			√											√	
PTERIDACEAE <i>Pellaea atropurpurea</i> Purple-stemmed Cliffbrake S3	crevices and earthen ledges on south-facing calcareous cliffs and rock slopes	3W,5E(2,10,11,12); 6E(4,10,11,14); 7E(3,5)	√		√				√				√				
PYROLACEAE <i>Chimaphila maculata</i> <sup>E</sup> Spotted Wintergreen S1	dry, sandy woods	5E(7);6E(6);7E(2,3)														√	
RANUNCULACEAE <i>Anemone richardsonii</i> Yellow Anemone S1	NO INFORMATION															√	√
RANUNCULACEAE <i>Anemonella thalictroides</i> Rue Anemone S3	deciduous woods <sup>3</sup>	6E(10); 7E							√							√	
RANUNCULACEAE <i>Caltha natans</i> Floating Marsh-marigold S2	ponds and shallow water	1E,4W		√											√		
RANUNCULACEAE <i>Cimicifuga racemosa</i> Black Cohosh S2	open, rich, moist woods	7E(3,4,5)														√	
RANUNCULACEAE <i>Hydrastis canadensis</i> <sup>T,T</sup> Golden Seal S2	damp, deciduous woods, often on clay soil	6E(1,5,15);7E(1,2)						√								√	
RANUNCULACEAE <i>Isopyrum bitematum</i> <sup>Y</sup> False Rue-anemone S2	floodplain woods and rich wooded slopes	7E(2,6)						√								√	
RANUNCULACEAE <i>Myosurus minimus</i> Mousetail S1	damp, calcareous, rocky places, open disturbed ground	6E(15)	√						√								
RANUNCULACEAE <i>Pulsatilla patens</i> Pasque-flower S1	exposed slopes and dry prairies	5S					√		√								
RANUNCULACEAE <i>Ranunculus hispidus</i> var. <i>hispidus</i> Bristly Buttercup S1	Dry, opensandy woods, savannahs	6E, 7E					√		√							√	
RANUNCULACEAE <i>Ranunculus hyperboreus</i> Arctic Buttercup S2	wet mud and shallow tundra pools	1E												√			
RANUNCULACEAE <i>Ranunculus pallasii</i> Buttercup S2	fens, marshes and lakshore meadows	1E;2E													√		
RANUNCULACEAE <i>Ranunculus pedatifidus</i> Northern Buttercup S2	moist tundra, shingle beaches and brackish lagoons	1E												√			
RANUNCULACEAE <i>Ranunculus reptans</i> var. <i>ovalis</i> Creeping Spearwort S1?	Wet shores											√			√		
RANUNCULACEAE <i>Ranunculus rhomboideus</i> Prairie Buttercup S3	Dry sandy open woods, savannah, prairie	5E, 6E, 7E					√		√	√						√	
RANUNCULACEAE <i>Thalictrum revolutum</i> Waxy Meadow-rue S2	rich alluvial woods, marsh edges and mossy creek beds	7E(1,2,3,5)													√	√	
ROSACEAE <i>Agrimonia parviflora</i> Swamp Agrimony S3S4	woods, fields prairies	7E(1,2,3,5)					√									√	
ROSACEAE <i>Amelanchier amabilis</i> Juneberry S2S3	Open rocky or sandy woods and edges	6E, 7E														√	√
ROSACEAE <i>Crataegus apiomorpha</i> Hawthorn S1S2	NO INFORMATION																
ROSACEAE <i>Crataegus ater</i> Hawthorn S1?	NO INFORMATION																
ROSACEAE <i>Crataegus brainerdii</i> Hawthorn S2	old fields, poorly managed pastures, fencelines and roadsides	6E(6,9,12,15); 7E(2,3,6)															
ROSACEAE <i>Crataegus compta</i> Hawthorn S2?	NO INFORMATION																
ROSACEAE <i>Crataegus conspecta</i> Hawthorn S1	old fields, poorly managed pastures, fencelines and roadsides	7E(3,4,5)															
ROSACEAE <i>Crataegus corusca</i> Hawthorn S2S3	old fields, poorly managed pastures, fencelines and roadsides	6E;7E(2)															
ROSACEAE <i>Crataegus dilatata</i> Hawthorn S1	NO INFORMATION																

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ROSACEAE <i>Crataegus disperma</i> Hawthorn S1?	Scrubby alvar	7E(1)	√														√
ROSACEAE <i>Crataegus dissona</i> Hawthorn S3	old fields, poorly managed pastures, fencelines and roadsides	7E(2,3,4,5,6)															
ROSACEAE <i>Crataegus formosa</i> Hawthorn S2	old fields, poorly managed pastures, fencelines and roadsides	7E(3,5)															
ROSACEAE <i>Crataegus fulleri</i> Hawthorn S2?	Taxonomic problem;obscure																
ROSACEAE <i>Crataegus grandis</i> Grand Hawthorn S1?	NO INFORMATION																
ROSACEAE <i>Crataegus perjucunda</i> Hawthorn S1?	old fields, poorly managed pastures, fencelines and roadsides	7E(2,6)															
ROSACEAE <i>Crataegus persimilis</i> Hawthorn S1	NO INFORMATION																
ROSACEAE <i>Crataegus scabrada</i> Hawthorn S3?	taxonomic problem;obscure																
ROSACEAE <i>Crataegus suborbiculata</i> Hawthorn S1	old fields, poorly managed pastures, fencelines and roadsides	6E(4,14);7E(2,6)															
ROSACEAE <i>Dryas drummondii</i> Yellow Dryas S1	rock crevices	3W															
ROSACEAE <i>Geum vernum</i> Spring Avens S3	deciduous woods and alvars	7E(1,5)	√					√									√
ROSACEAE <i>Geum virginianum</i> Pale Avens S1	Rocky woods	7E(1)															√
ROSACEAE <i>Potentilla gracilis</i> Cinquefoil S2	stoney shorelines, clayey to sandy meadows and old fields	2W,3W,4W										√					
ROSACEAE <i>Potentilla hippiana</i> Cinquefoil S1	lakeshore meadows, rocky beaches and old fields	4W										√					
ROSACEAE <i>Potentilla multifida</i> Cinquefoil S2	sandy to rocky soil on roadsides and shorelines	1E;2W;3W;4W										√					
ROSACEAE <i>Potentilla nivea</i> Cinquefoil S2	cliffs	1E;4W			√												
ROSACEAE <i>Potentilla paradoxa</i> Bushy Cinquefoil S3	sandy shorelines	5S;6E(7,13,15); 7E(1,2,3)										√			√		
ROSACEAE <i>Potentilla pulchella</i> Cinquefoil S2	sand and gravel beach ridges	1E										√					
ROSACEAE <i>Prunus pumila</i> var. <i>besseyi</i> Bessey's Plum S1	Dry, open sandy or rocky ground	5S, 6E					√		√								
ROSACEAE <i>Rosa setigera</i> <sup>v</sup> Prairie Rose S3	open woods and thickets	7E(1)	√				√									√	√
RUBIACEAE <i>Galium brevipes</i> Short-stalked Bedstraw S2?	Moist, open shores	5E										√			√		
RUBIACEAE <i>Galium concinnum</i> Shining Bedstraw S1	woods	7E															√
RUBIACEAE <i>Galium kamtschaticum</i> Boreal Bedstraw S2	cool, moist woods, thickets and valleys	4E															√
RUBIACEAE <i>Galium pilosum</i> Hairy Bedstraw S3	dry, sandy woods and thickets; occasionally in dry sandy fields	6E(5,10);7E(1,2,3,4,5)					√			√							√
RUBIACEAE <i>Hedyotis caerulea</i> Bluets S1	moist, open or partly shaded, sandy areas	5E(10);6E(1,5,6)															
RUPPIACEAE <i>Ruppia maritima</i> Ditch-grass S2	saline waters of coastal marsh pools and intertidal flats	2E		√								√			√		
RUTACEAE <i>Ptelea trifoliata</i> <sup>v</sup> Hop Tree S3	shorelines and other dry sites	7E(1,2,5)	√			√						√					√

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Family Family Name <sup>1</sup> Scientific Name Common Name NHIC ranking	Habitat Description <sup>2</sup>	Site Region <sup>2</sup> (Site District)	Alvars	Aquatic	Cliffs	Dunes (sand)	Prairies/Grasslands	Riparian	Rock Outcroppings	Savannahs	Seeps	Shorelines	Talus Slopes	Tundra	Wetlands	Woodlands	Woodland Edges
SALICACEAE <i>Salix arbusculoides</i> Willow S1	calcareous clay-silts of riparian littoral zone	1E						✓									
SALICACEAE <i>Salix arctica</i> Arctic Willow S3	beach ridges, dry hillsides and wet sand	1E										✓					
SALICACEAE <i>Salix lutea</i> Willow S2	NO INFORMATION																
SALICACEAE <i>Salix maccalliana</i> McCall's Willow S3	widespread or common																
SALICACEAE <i>Salix myricoides</i> var. <i>albovestita</i> Shoreline Willow S2?	NO INFORMATION																
SALICACEAE <i>Salix myricoides</i> var. <i>myricoides</i> Blue-leaf Willow S2S3	Dunes	6E				✓											
SALICACEAE <i>Salix pseudomonticola</i> False Mountain Willow S3	NO INFORMATION																
SAURURACEAE <i>Saururus cernuus</i> Lizard's Tail S3	shores and shallow water	6E(12,15); 7E						✓				✓			✓		
SAXIFRAGACEAE <i>Chrysosplenium tetrandrum</i> Northern Golden-carpet S3?	NO INFORMATION																
SAXIFRAGACEAE <i>Heuchera americana</i> Rock-geranium S2	wet to moist woods and thickets	7E(1)	✓													✓	
SAXIFRAGACEAE <i>Parnassia kotzebuei</i> Kotzebue's Grass-of-parnassus S2S3	riparian willow thickets and moss-covered or ericaceous, moist tundra heath	1E												✓			
SAXIFRAGACEAE <i>Saxifraga cespitosa</i> Tufted Saxifrage S2	wet and dry areas in beach ridge complexes	1E										✓					
SAXIFRAGACEAE <i>Saxifraga oppositifolia</i> Purple Mountain Saxifrage S1	tundra barrens, disturbed gravel habitats along roads and aircraft landing strips	1E												✓			
SAXIFRAGACEAE <i>Saxifraga pensylvanica</i> Swamp Saxifrage S1	spruce bogs, cedar bogs, boggy meadows	5S														✓	
SCROPHULARIACEAE <i>Agalinis gattingeri</i> <sup>F</sup> Round-stemmed Purple False Foxglove S1	meadows and dry, open ground, alvars	5E, 6E, 7E(1,6)	✓				✓										
SCROPHULARIACEAE <i>Agalinis purpurea</i> Large Purple False Foxglove S1	prairies	7E					✓										
SCROPHULARIACEAE <i>Agalinis skinneriana</i> <sup>F</sup> Pale Purple False Foxglove S2	prairies and dry, open ground	7E(1)					✓										
SCROPHULARIACEAE <i>Aureolaria flava</i> Smooth Yellow False Foxglove S3	Open oak woods	7E					✓			✓						✓	
SCROPHULARIACEAE <i>Aureolaria pedicularia</i> Fernleaf Yellow False Foxglove S3	dry, open pine and oak woods and thickets; often on sand and along disturbed woodland margins; hosts frequently include woody species other than pines and oaks	7E					✓			✓						✓	✓
SCROPHULARIACEAE <i>Aureolaria virginica</i> Downy Yellow False Foxglove S1	dry, open, deciduous woods	7E(2,3)														✓	
SCROPHULARIACEAE <i>Buchnera americana</i> <sup>F</sup> Bluehearts S1	wet dune slacks, moist sandy meadows and damp, sandy soil between sparsely wooded sand dunes	7E(2)				✓									✓		
SCROPHULARIACEAE <i>Collinsia parviflora</i> Small-flowered Blue-eyed Mary S2	thin soil over acidic bedrock	5E(1,7);6E(6,15)			✓				✓			✓					
SCROPHULARIACEAE <i>Euphrasia vinacea</i> Eyebright S1?	taxonomic problem; obscure																
SCROPHULARIACEAE <i>Leucospora multifida</i> Leucospora S1	open grasslands, damp sand or gravel and seams in limestone pavement	7E(1)	✓				✓				✓						
SCROPHULARIACEAE <i>Limosella aquatica</i> Mudwort S2	lagoons, sandy shores and exposed clay flats	1E;2E;4S										✓			✓		
SCROPHULARIACEAE <i>Linaris canadensis</i> Blue Toadflax S1	disturbed peaty ground and cultivated fields; weedy	7E(2,5)															
SCROPHULARIACEAE <i>Lindernia dubia</i> var. <i>anagallidea</i> Slender False Pimpernel S1	Moist shores	5E(11)										✓			✓		

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SCROPHULARIACEAE <i>Mimulus alatus</i> Winged Monkey Flower S2	wet deciduous woods and stream banks	7E(1,5)						✓							✓	✓	
SCROPHULARIACEAE <i>Mimulus moschatus</i> Muskflower S2?	seepages	6E									✓				✓		
SCROPHULARIACEAE <i>Penstemon gracilis</i> Slender Beard-tongue S1	dry open woods, prairies and open rocky slopes	5S					✓		✓							✓	
SCROPHULARIACEAE <i>Rhinanthus minor ssp. groenlandicus</i> Yellow Rattle S3																	
SCROPHULARIACEAE <i>Veronicastrum virginicum</i> Culver's-root S2	damp prairies and meadows, open, moist deciduous woods	7E(1,2)					✓									✓	
SELAGINELLACEAE <i>Selaginella densa</i> Prairie Spikemoss S2	dominant on dry, eroding, grassy knolls and granitic slopes in <i>Cladina</i> (lichen) beds in open, medium-aged jack pine forests	3S;4S, 4W; 5S					✓		✓							✓	
SMILACACEAE <i>Smilax ecirrhata</i> Upright Carrion Flower S3?	Rich woods	7E														✓	
SMILACACEAE <i>Smilax illinoensis</i> Illinois Carrion Flower S2?	Rich woods	7E														✓	
SMILACACEAE <i>Smilax rotundifolia</i> <sup>TV</sup> Common Greenbrier S2	moist to dry woods or thickets	7E(1)														✓	
SOLANACEAE <i>Leucophyllum grandiflora</i> Large-flowered Ground-cherry S3?	sandy or rocky open areas	4W, 5E, 6E					✓		✓								
SPARGANIACEAE <i>Sparganium angustifolium</i> Branching Bur-reed S1	shallow water and muddy shores of ponds, lake margins and marshes	6E(5,8,9,11,12); 7E(5,6)										✓			✓		
SPARGANIACEAE <i>Sparganium hyperboreum</i> Northern Bur-reed S2?	wetlands															✓	
SPARGANIACEAE <i>Sparganium multipedunculatum</i> Many-stalked Burweed S1	shallow water of ponds, lake edges and quiet stream shores	3W;4W		✓								✓			✓		
THELYPTERIDACEAE (ASPLENIACEAE) <i>Phegopteris hexagonoptera</i> <sup>V</sup> Broad Beech Fern S3	rich, moist soil in mature deciduous forests	6E(9,10,11);7E														✓	
THELYPTERIDACEAE (ASPLENIACEAE) <i>Thelypteris simulata</i> Bog Fern S1	densely shaded, red maple bog-fringe forest, with herb layer dominated by cinnamon fern ( <i>Osmunda cinnamomea</i> )	6E(12)													✓	✓	
ULMACEAE <i>Celtis tenuifolia</i> <sup>V</sup> Dwarf Hackberry S2	open, sandy woods	6E(15);7E(1,2)				✓				✓						✓	
VALERIANACEAE <i>Valeriana edulis</i> Hairy Valerian S1	swampy river flats and meadows; wet prairies; wooded, rocky riverbanks	6E(2);7E(2,6)					✓	✓							✓		
VALERIANACEAE <i>Valeriana sitchensis</i> Marsh Valerian S2	calcareous sphagnum bogs, marshy meadows, cedar-tamarack-spruce swamps, wet, open fens and wet woods	6E(1,5,6,7,8,9); 7E(2,6)													✓		
VALERIANACEAE <i>Valerianella umbilicata</i> Northern Corn-salad S1	open <i>Rhus-Cornus-Crataegus</i> thickets on limestone plains	7E(1,2)	✓					✓									
VERBENACEAE <i>Phyla lanceolata</i> Fog Fruit S2	roadside ditches and wet places	7E(1,2)						✓				✓			✓		
VIOLACEAE <i>Hybanthus concolor</i> Green Violet S2	rich, wet-mesic floodplain forests and mesic forests over limestone	6E(1,2,5); 7E(2,3,5,6)						✓								✓	
VIOLACEAE <i>Viola epipsilia</i> Northern Marsh Violet S3	Moist woods															✓	
VIOLACEAE <i>Viola novae-angliae</i> New England Violet S2S3	Rocky woods	3W, 4W							✓							✓	
VIOLACEAE <i>Viola palmata var. dilatata</i> Cleft Violet S2	dry-mesic or sometimes wet-mesic sandy loam forests, disturbed forests and prairie- forest ecotones	Regional Mun. of Haldimand-Norfolk														✓	
VIOLACEAE <i>Viola palmata var. palmata</i> Palmate Violet S2	dry-mesic or sometimes wet-mesic sandy loam forests, disturbed forests and prairie- forest ecotones	7E(1,2,5,6)						✓								✓	
VIOLACEAE <i>Viola pedata</i> <sup>T</sup> Bird's-foot Violet S1	open, dry oak and jack pine woods, sand barrens, dry prairies and dune forests	7E(2,3,5)				✓	✓			✓						✓	
VIOLACEAE <i>Viola pedatifida</i> Prairie Violet S1	Dry open woods	7E														✓	

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VIOLACEAE <i>Viola rafinesquii</i> Wild Pansy S1	dry, oak-hackberry-blue ash savannah over limestone in Ontario	7E(1)								√							
VIOLACEAE <i>Viola rotundifolia</i> Round-leaved Yellow Violet S1	rich, mesic maple-birch-hemlock forests	6E(10);7E(2,3,5)														√	
VIOLACEAE <i>Viola striata</i> Cream Violet S3	rich, floodplain forests and low,wet woods	6E(1);7E(1,2,6)						√								√	
VITACEAE <i>Vitis labrusca</i> Northern Fox Grape S1	woods	7E														√	
VITACEAE <i>Vitis vulpina</i> Frost Grape S1	floodplain woods	7E(1)						√								√	
XYRIDACEAE <i>Xyris difformis</i> Tall Yellow-eyed-grass S3?	gravelly or sandy shorelines, moist open areas, bogs and depressions	5E(7,8);6E(6)										√			√		
ZOSTERACEAE <i>Zostera marina</i> Eel-grass S2	intertidal mudflats	2E			√							√			√		

<sup>1</sup> Source: Ministry of Natural Resources Natural Heritage Information Centre: List of Ontario Rare Vascular Plants (Revised March 1997)

<sup>2</sup> Source: Argus, G.W., K. M. Pryer, D.J. White and C. J. Keddy [eds]. 1987. Atlas of the rare vascular plants of Ontario. 4 Parts. National Museum of Natural Sciences, National Museum of Canada.

<sup>3</sup>Source: Don Cuddy (Personal Communication 1999) Southern Science Technology Transfer Unit, Kemptville