

SPECIES LISTS OF THE KOFFLER SCIENTIFIC RESERVE AT JOKERS HILL, ONTARIO, CANADA

Tubba Babar¹, C. Sean Blaney^{1,2}, Theresa McKenzie, Glenn Reed, and Peter M. Kotanen^{1*}

¹Department of Ecology & Evolutionary Biology
University of Toronto Mississauga
3359 Mississauga Road, Mississauga, ON, Canada
L5L 1C6

²Atlantic Canada Conservation Data Centre
P.O. Box 6416, Sackville NB.
E4L 1G6

*Correspondence author. e-mail: peter.kotanen@utoronto.ca

ABSTRACT

This document includes taxonomically-organized lists of all vascular plants, amphibians and reptiles, birds, and mammals recorded from the 350 ha Koffler Scientific Reserve of the University of Toronto, in King Township, Regional Municipality of York, Ontario, Canada ($44^{\circ} 01' N$, $79^{\circ} 31' W$). These lists were initially compiled by C.S. Blaney and were published as an appendix to his M.Sc. thesis (Blaney C.S. 1999), conducted under the supervision of P.M. Kotanen. They subsequently were formatted for the web by P.M. Kotanen and made available on the Koffler Scientific Reserve website (<http://ksr.utoronto.ca/>), where they were revised periodically to reflect additions and taxonomic changes. A major revision in 2020, led by T. Babar, reflected recent phylogenetic and nomenclatural changes and added additional species. These revised lists included numerous additional observations of birds contributed by T. McKenzie and G. Reed. Additional information on each list is provided in that particular section.

These lists are current as of 21 June 2024. Additional species (e.g., Passenger Pigeon, Black Bear) undoubtably occurred at this site prior to European settlement, but are not documented in the existing record. Information on any additional species (preferably with photographs or specimens) should be directed to the correspondence author.

These lists document the existing biodiversity of this rapidly urbanizing area. Both current users and future researchers should benefit from the permanent availability of this unique resource.

REFERENCES

Blaney, C.S. (1999) Seed bank dynamics of native and exotic plants in open uplands of southern Ontario. M.Sc. thesis. Department of Ecology and Evolutionary Biology, University of Toronto. <https://tspace.library.utoronto.ca/handle/1807/14382/>

VASCULAR PLANTS OF THE KOFFLER SCIENTIFIC RESERVE AT JOKERS HILL

King Township, Regional Municipality of York, Ontario

Tubba Babar¹, C. Sean Blaney², and Peter M. Kotanen^{1*}

¹Department of Ecology & Evolutionary Biology
University of Toronto Mississauga
3359 Mississauga Road, Mississauga, ON,
Canada
L5L 1C6

²Atlantic Canada Conservation Data Centre
P.O. Box 6416, Sackville NB.
E4L 1G6

*Correspondence author. e-mail: peter.kotanen@utoronto.ca

The first edition of this list was compiled by C. Sean Blaney and was published as an appendix to his M.Sc. thesis (Blaney C.S. 1999. Seed bank dynamics of native and exotic plants in open uplands of southern Ontario. University of Toronto. <https://tspace.library.utoronto.ca/handle/1807/14382/>). It subsequently was formatted for the web by P.M. Kotanen and made available on the Koffler Scientific Reserve website (<http://ksr.utoronto.ca/>), where it was revised periodically to reflect additions and taxonomic changes. This version represents a major revision reflecting recent phylogenetic and nomenclatural changes and adding additional species.

This property was donated to the University of Toronto in 1995. This list is based on observations at this site by C.S. Blaney, P.M. Kotanen, and many others beginning in 1997; a partial list of contributors may be found in Blaney (1999). Care has been taken to include only species which have been identified with certainty, and numerous experts have assisted with observations and difficult identifications, notably P. Ball and M.T.J. Johnson (University of Toronto), T. Dickinson and J. Bull (Royal Ontario Museum), A. Reznicek (University of Michigan), and W. Wagner (United States National Herbarium). Voucher specimens have been collected for many difficult identifications. Approximately 160 species (indicated by †) are documented by specimens donated to the Royal Ontario Museum / University of Toronto herbarium (TRT); numerous additional species are represented in the Koffler Scientific Reserve on-site herbarium. The phylogenetic classification of ferns and allies follows the Pteridophyte Phylogeny Group (PPG I 2016: Journal of Systematics and Evolution 54, 563-603), classification for gymnosperms is based on Christenhusz et al. 2011 (Phytotaxa 19, 55-70), and classification for angiosperms follows the Angiosperm Phylogeny IV system (APG IV 2016: Botanical Journal of the Linnean Society 181, 1-20). Scientific and English nomenclature follow the Database of Vascular Plants of Canada (VASCAN) (<https://data.canadensys.net/vascan/>); VASCAN or the first edition of this list may be consulted for synonymy.

This list includes all species known to be growing outside of cultivation within the Koffler Scientific Reserve during the observation period. This includes a number of tree species which are questionably established, but nonetheless are widely planted on the property. Also listed are 13 native species found in land adjacent to the Jokers Hill property, but not yet found on the site (scientific name preceded by **). A total of 639 species and hybrids are listed; 450 taxa listed by VASCAN as native to Ontario (those listed in **bold typeface**) and 189 are considered non-native (listed in regular typeface). Not all listed species still may occur on-site (e.g., American Ginseng – not seen since 2008). Information on any additional species (preferably with photographs or specimens) would be welcomed by the authors.

FERNS AND ALLIES

LYCOPODIALES

Lycopodiaceae

- †*Dendrolycopodium dendroideum* (Michx.) A. Haines (s.st.)
Diphasiastrum digitatum Dill. ex A. Braun (Holub)
†*Diphasiastrum tristachyum* (Pursh) Holub
Huperzia lucidula (Michx.) Trevis.
Lycopodium clavatum L.

Clubmosses

- (Clubmosses)
Round-branched Tree-clubmoss
Southern Ground-cedar
Blue Ground-cedar
Shining Firmoss
Running Clubmoss

EQUISETALES

Equisetaceae

- Equisetum arvense* L.
Equisetum fluviatile L.
Equisetum hyemale L.
†*Equisetum pratense* Ehrh.
Equisetum scirpoides Michx.
Equisetum sylvaticum L.
Equisetum variegatum Schleich. ex Fried., Weber & Mohr.

Horsetails

- (Horsetails)
Field Horsetail
Water Horsetail
Common Scouring-rush
Meadow Horsetail
Dwarf Scouring-rush
Woodland Horsetail
Variegated Horsetail

OPHIOGLOSSALES

Ophioglossaceae

- Botrychium matricariifolium* (Döll) A. Braun ex Koch
Botrypus virginianus (L.) Michx.
†*Sceptridium dissectum* (Spreng.) Lyon
Sceptridium multifidum (S. G. Gmelin) Nishida ex Tagawa

Adder's-tongues

- (Adder's-tongues)
Daisy-leaved Moonwort
Rattlesnake Fern
Cutleaf Grape-fern
Leathery Grape-fern

OSMUNDALES

Osmundaceae

- Claytosmunda claytoniana* (L.) Metzgar & Rouhan
Osmunda regalis L.
Osmundastrum cinnamomeum (L.) C. Presl

Royal Ferns

- (Royal Ferns)
Interrupted Fern
Royal Fern
Cinnamon Fern

POLYPODIALES

Pteridaceae

- Adiantum pedatum* L.

Leptosporangiate Ferns

- (Maidenhair Ferns)
Northern Maidenhair Fern

Dennstaedtiaceae

- †*Dennstaedtia punctilobula* (Michx.) T. Moore
Pteridium aquilinum (L.) Kuhn

Bracken Ferns

- Eastern Hay-scented Fern
Bracken Fern

Cystopteridaceae	(Bladder Ferns)
<i>Cystopteris bulbifera</i> (L.) Bernh.	Bulblet Bladder Fern
<i>Cystopteris tenuis</i> (Michx.) Desv.	Mackay's Brittle Fern
<i>Gymnocarpium dryopteris</i> (L.) Newman	Common Oak Fern
Aspleniaceae	(Spleenworts)
<i>Asplenium platyneuron</i> (L.) Oakes ex D. Eaton	Ebony Spleenwort
Onocleaceae	(Sensitive Ferns)
<i>Matteuccia struthiopteris</i> (L.) Tod.	Ostrich Fern
<i>Onoclea sensibilis</i> L.	Sensitive Fern
Athyriaceae	(Lady Ferns)
<i>Deparia acrostichoides</i> (Swartz) M. Kato	Silvery Spleenwort
Thelypteridaceae	(Marsh Ferns)
† <i>Parathelypteris noveboracensis</i> (L.) Ching	New York Fern
<i>Phegopteris connectilis</i> (Michx.) Watt	Northern Beech Fern
<i>Thelypteris palustris</i> (Salisb.) Schott	Marsh Fern
Dryopteridaceae	(Wood Ferns)
<i>Athyrium filix-femina</i> (L.) Roth.	Common Lady Fern
† <i>Dryopteris × boottii</i> (Tuckerm.) Underw.	Boott's Wood Fern
<i>Dryopteris carthusiana</i> (Vill.) H.P. Fuchs	Spinulose Wood Fern
<i>Dryopteris cristata</i> (L.) A. Gray	Crested Wood Fern
<i>Dryopteris goldiana</i> (Hook. ex Goldie) A. Gray	Goldie's Wood Fern
<i>Dryopteris intermedia</i> (Muhlenb. ex Willd.) A. Gray	Evergreen Wood Fern
<i>Dryopteris marginalis</i> (L.) A. Gray	Marginal Wood Fern
† <i>Dryopteris × triploidea</i> Wherry	Triploid Wood Fern
<i>Polystichum acrostichoides</i> (Michx.) Schott	Christmas Fern
Polypodiaceae	(Polypodies)
† <i>Polypodium virginianum</i> L.	Rock Polypody

GYMNOSPERMS

PINALES

Pinaceae	(Pines)
<i>Larix laricina</i> (Du Roi) K. Koch	Tamarack
<i>Picea abies</i> (L.) Karsten	Norway Spruce
<i>Picea glauca</i> (Moench) Voss	White Spruce
<i>Picea pungens</i> Engelm.	Blue Spruce
<i>Pinus banksiana</i> Lamb.	Jack Pine
<i>Pinus resinosa</i> Sol. ex Aiton	Red Pine
<i>Pinus strobus</i> L.	Eastern White Pine
<i>Pinus sylvestris</i> L.	Scots Pine
<i>Tsuga canadensis</i> (L.) Carrière	Eastern Hemlock

Pines and Spruces

(Pines)	(Pines)
Tamarack	Tamarack
Norway Spruce	Norway Spruce
White Spruce	White Spruce
Blue Spruce	Blue Spruce
Jack Pine	Jack Pine
Red Pine	Red Pine
Eastern White Pine	Eastern White Pine
Scots Pine	Scots Pine
Eastern Hemlock	Eastern Hemlock

CUPRESSEALS

Cupressaceae

†Juniperus communis L.
†Juniperus virginiana L.
Thuja occidentalis L.

Cypresses

(Cypresses)

Common Juniper
Eastern Red Cedar
Eastern White Cedar

Taxaceae

Taxus canadensis Marshall

(Yews)

Canada Yew

ANGIOSPERMS

MAGNOLIIDS

PIPERALES

Aristolochiaceae

Asarum canadense L.

Dutchman's-pipes

(Dutchman's-pipes)
Canada Wild-ginger

MONOCOTS

ALISMATALES

Araceae

Arisaema triphyllum (L.) Schott
Lemna minor L.
Spirodela polyrhiza (L.) Schleid.
Wolffia columbiana Karst.

Alismatids

(Arums)

Jack-in-the-Pulpit
Small Duckweed
Greater Duckweed
Columbia Watermeal

Alismataceae

Alisma triviale Pursh
†Sagittaria latifolia Willd.

(Water-plantains)

Northern Water-plantain
Broad-leaved Arrowhead

Hydrocharitaceae

Najas flexilis (Willd.) Rostkov & W. Schmidt

(Frog-bits)

Slender Naiad

Potamogetonaceae

†Stuckenia pectinata (L.) Boerner

(Pondweeds)

Sago Pondweed

LILIALES

Melanthiaceae

Trillium erectum L.
Trillium grandiflorum (Michx.) Salisb.

Lilies

(Bunchflowers)

Red Trillium
White Trillium

Colchicaceae

Uvularia grandiflora Sm.

(Colchicums)

Large-flowered Bellwort

Smilacaceae	(Catbriers)
<i>Smilax herbacea</i> L.	Herbaceous Carrionflower
† <i>Smilax tamnoides</i> L.	Bristly Greenbrier
Liliaceae	(Lilies)
<i>Clintonia borealis</i> (Aiton) Raf.	Yellow Clintonia
<i>Erythronium americanum</i> Ker Gawl.	Yellow Trout Lily
<i>Medeola virginiana</i> L.	Indian Cucumber-root
<i>Streptopus lanceolatus</i> (Aiton) Reveal	Rose Twisted-stalk
ASPARAGALES	Asparagoid Lilies
Orchidaceae	(Orchids)
* <i>Corallorrhiza maculata</i> (Raf.) Raf.	Spotted Coralroot
<i>Corallorrhiza trifida</i> Châtel.	Early Coralroot
<i>Cypripedium parviflorum</i> Salisb.	Yellow Lady's-slipper
<i>Cypripedium reginae</i> Walter	Showy Lady's-slipper
<i>Epipactis helleborine</i> (L.) Crantz	Broad-leaved Helleborine
† <i>Galearis spectabilis</i> (L.) Raf.	Showy Orchis
<i>Liparis loeselii</i> (L.) Rich. ex Lindl.	Loesel's Twayblade
*† <i>Malaxis monophyllos</i> (L.) Sw.	White Adder's-mouth
<i>Platanthera aquilonis</i> Sheviak	Tall Northern Green Orchid
<i>Spiranthes cernua</i> (L.) Rich.	Sphinx Ladies'-tresses
Iridaceae	(Irides)
<i>Iris versicolor</i> L.	Harlequin Blue Flag
<i>Sisyrinchium montanum</i> Greene	Strict Blue-eyed Grass
Asphodelaceae	(Asphodels)
<i>Hemerocallis fulva</i> (L.) L.	Orange Daylily
Amaryllidaceae	(Amaryllises)
<i>Allium tricoccum</i> Solander in Aiton	Wild Leek
Asparagaceae	(Asparaguses)
<i>Asparagus officinalis</i> L.	Garden Asparagus
<i>Maianthemum canadense</i> Desf.	Wild Lily-of-the-valley
<i>Maianthemum racemosum</i> (L.) Link	Large False Solomon's Seal
† <i>Maianthemum stellatum</i> (L.) Link	Star-flowered False Solomon's Seal
<i>Polygonatum pubescens</i> (Willd.) Pursh	Hairy Solomon's Seal
POALES	Grasses & Allies
Typhaceae	(Cattails)
† <i>Sparganium emersum</i> Rehmann	Green-fruited Burreed
<i>Typha angustifolia</i> L.	Narrow-leaved Cattail
<i>Typha latifolia</i> L.	Broad-leaved Cattail

Juncaceae	(Rushes)
† <i>Juncus articulatus</i> L.	Jointed Rush
† <i>Juncus brevicaudatus</i> (Engelm.) Fern.	Short-tailed Rush
<i>Juncus bufonius</i> L.	Toad Rush
† <i>Juncus compressus</i> Jacq.	Compressed Rush
† <i>Juncus dudleyi</i> Wiegand	Dudley's Rush
<i>Juncus effusus</i> L.	Soft-stem Rush
† <i>Juncus nodosus</i> L.	Knotted Rush
<i>Juncus tenuis</i> Willd.	Path Rush
<i>Juncus torreyi</i> Coville	Torrey's Rush
Cyperaceae	(Sedges)
† <i>Carex albursina</i> E. Sheld.	White Bear Sedge
† <i>Carex aquatilis</i> Wahlenb.	Water Sedge
<i>Carex arctata</i> Boott	Drooping Woodland Sedge
<i>Carex aurea</i> Nutt.	Golden Sedge
*† <i>Carex backii</i> Boott	Back's Sedge
† <i>Carex bebbii</i> (L.H. Bailey) Olney ex Fern.	Bebb's Sedge
† <i>Carex blanda</i> Dewey	Woodland Sedge
† <i>Carex cephalophora</i> Muhlenb. ex Willd.	Oval-leaved Sedge
† <i>Carex communis</i> L.H. Bailey	Fibrous-root Sedge
† <i>Carex cristatella</i> Britton	Crested Sedge
<i>Carex deweyana</i> Schwein.	Dewey's Sedge
† <i>Carex disperma</i> Dewey	Two-seeded Sedge
† <i>Carex flava</i> L.	Yellow Sedge
<i>Carex gracillima</i> Schwein.	Graceful Sedge
<i>Carex granularis</i> Muhlenb. ex Willd.	Limestone Meadow Sedge
*† <i>Carex hirtifolia</i> Mack.	Pubescent Sedge
† <i>Carex hitchcockiana</i> Dewey	Hitchcock's Sedge
† <i>Carex hystericina</i> Muhlenb. ex Willd.	Porcupine Sedge
† <i>Carex interior</i> L. H. Bailey	Inland Sedge
*† <i>Carex intumescens</i> Rudge	Bladder Sedge
† <i>Carex laevigarginata</i> (Kükenth.) Mack.	Smooth-sheathed Sedge
† <i>Carex lasiocarpa</i> Ehrh.	Woolly-fruited Sedge
† <i>Carex laxiflora</i> Lam.	Loose-flowered Sedge
<i>Carex leptalea</i> Wahlenb.	Bristle-stalked Sedge
† <i>Carex leptonervia</i> (Fern.) Fern.	Finely-nerved Sedge
<i>Carex lupulina</i> Muhlenb. ex Willd.	Hop Sedge
† <i>Carex muehlenbergii</i> Schkuhr ex Willd.	Muhlenberg's Sedge
† <i>Carex peckii</i> Howe	Peck's Sedge
<i>Carex pedunculata</i> Muhlenb. ex Willd.	Long-stalked Sedge
<i>Carex pensylvanica</i> Lam.	Pennsylvania Sedge
<i>Carex plantaginea</i> Lam.	Plantain-leaved Sedge
<i>Carex platyphylla</i> J. Carey	Broad-leaved Sedge
* <i>Carex projecta</i> Mack.	Necklace Sedge
† <i>Carex pseudocyperus</i> L.	Cyperus-like Sedge
† <i>Carex radiata</i> (Wahlenb.) Small	Eastern Star Sedge
<i>Carex retrorsa</i> Schwein.	Retrorse Sedge
† <i>Carex rosea</i> Schkuhr ex Willd.	Rose Sedge

<i>Carex scabrata</i> Schwein.	Eastern Rough Sedge
<i>Carex schweinitzii</i> Dewey ex Schwein. × <i>utriculata</i> Boott	Hybrid Sedge
<i>Carex sparganioides</i> Muhlenb. ex Willd.	Burreed Sedge
† <i>Carex spicata</i> Huds.	Spiked Sedge
<i>Carex sprengelii</i> Dewey ex Spreng.	Sprengel's Sedge
<i>Carex stipata</i> Muhlenb. ex Willd.	Awl-fruited Sedge
† <i>Carex tonsa</i> (Fern.) Bicknell	Deep-green Sedge
<i>Carex vulpinoidea</i> Michx.	Fox Sedge
<i>Cyperus bipartitus</i> Torr.	Shining Flatsedge
† <i>Cyperus lupulinus</i> (Spreng.) Marcks	Hop Flatsedge
<i>Eleocharis erythropoda</i> Steud.	Red-stemmed Spikerush
† <i>Eleocharis obtusa</i> (Willd.) Schult.	Blunt Spikerush
<i>Schoenoplectus tabernaemontani</i> (K. C. Gmel.) Palla	Soft-stemmed Bulrush
<i>Scirpus atrovirens</i> Willd.	Dark-green Bulrush
<i>Scirpus cyperinus</i> (L.) Kunth	Common Woolly Bulrush
<i>Scirpus microcarpus</i> C. Presl	Red-tinged Bulrush
Poaceae	(Grasses)
† <i>Agrostis gigantea</i> Roth	Redtop
Agrostis scabra Willd.	Rough Bentgrass
<i>Agrostis stolonifera</i> L.	Creeping Bent Grass
<i>Alopecurus aequalis</i> Sobol.	Short-awn Foxtail
† <i>Avena sativa</i> L.	Cultivated Oats
* <i>Brachyelytrum erectum</i> (Schreb. ex Spreng.) Beauv. (s.l.)	Southern Shorthusk
† <i>Bromus ciliatus</i> L.	Fringed Brome
<i>Bromus inermis</i> Leyss.	Smooth Brome
<i>Calamagrostis canadensis</i> (Michx.) P. Beauv.	Bluejoint Reedgrass
† <i>Cinna latifolia</i> (Trevir. ex Goepp.) Griseb. in Ledeb	Drooping Woodreed
<i>Dactylis glomerata</i> L.	Orchard Grass
<i>Danthonia spicata</i> (L.) P. Beauv. ex Roem. & Schult.	Poverty Oatgrass
† <i>Dichanthelium acuminatum</i> (Swartz) Gould & C.A. Clark	Tapered Panicgrass
† <i>Dichanthelium depauperatum</i> (Muhlenberg) Gould.	Starved Panicgrass
† <i>Dichanthelium linearifolium</i> (Scribnier) Gould	Linear-leaved Panicgrass
<i>Digitaria ischaemum</i> (Schreb.) Schreb. ex Muhlenb.	Smooth Crab-grass
† <i>Digitaria sanguinalis</i> (L.) Scop.	Large Crab-grass
† <i>Echinochloa crus-galli</i> (L.) P. Beauv.	Barnyard Grass
† <i>Echinochloa muricata</i> (Beauv.) Fern.	Rough Barnyard Grass
<i>Elymus repens</i> (L.) Gould	Quackgrass
Elymus virginicus L.	Virginia Wildrye
<i>Eragrostis minor</i> Host	Little Lovegrass
<i>Festuca rubra</i> L.	Red Fescue
† <i>Festuca subverticillata</i> (Pers.) Alexeev	Nodding Fescue
<i>Festuca trachyphylla</i> (Hack.) Krajina	Hard Fescue
<i>Glyceria grandis</i> S. Watson ex A. Gray	Tall Mannagrass
<i>Glyceria striata</i> (Lam.) Hitchc.	Fowl Mannagrass
<i>Leersia oryzoides</i> (L.) Sw.	Rice Cutgrass
<i>Lolium arundinaceum</i> (Schreb.) S.J. Darbyshire	Tall Ryegrass
<i>Lolium perenne</i> L.	Perennial Grass

<i>Milium effusum</i> L.	Wood Millet
<i>Muhlenbergia mexicana</i> (L.) Trin.	Mexican Muhly
<i>Oryzopsis asperifolia</i> Michx.	Rough-leaved Mountain-rice
<i>Panicum capillare</i> L.	Common Panicgrass
<i>Phalaris arundinacea</i> L.	Reed Canarygrass
<i>Phleum pratense</i> L.	Common Timothy
<i>Phragmites australis</i> (Cav.) Trin. ex Steud.	Common Reed
<i>Poa alsodes</i> A. Gray	Grove Bluegrass
<i>Poa annua</i> L.	Annual Bluegrass
<i>Poa compressa</i> L.	Canada Bluegrass
<i>Poa palustris</i> L.	Fowl Bluegrass
<i>Poa pratensis</i> L.	Kentucky Bluegrass
<i>Schizachne purpurascens</i> (Torr.) Swallen.	Purple False Melic
<i>†Setaria pumila</i> (Poir.) Roem. & Schult.	Yellow Foxtail
<i>†Setaria viridis</i> (L.) P. Beauv.	Green Foxtail
<i>†Sphenopholis intermedia</i> (Rydb.) Rydb.	Slender Wedge Grass
<i>Sporobolus cryptandrus</i> (Torr.) A. Gray	Sand Dropseed
<i>Sporobolus neglectus</i> Nash	Small Dropseed
<i>Sporobolus vaginiflorus</i> (Torr. ex A. Gray) Torr. ex Alph	Sheathed Dropseed

EUDICOTS

RANUNCULALES

Papaveraceae

<i>Chelidonium majus</i> L.	(Poppies)
<i>Dicentra canadensis</i> (Goldie) Walp.	Greater Celandine
<i>Sanguinaria canadensis</i> L.	Squirrel-corn

Berberidaceae

<i>Berberis thunbergii</i> DC.	(Barberries)
<i>Caulophyllum thalictroides</i> (L.) Michx.	Japanese Barberry
<i>Podophyllum peltatum</i> L.	Blue Cohosh

Ranunculaceae

<i>†Actaea × ludovici</i> B. Boivin	(Buttercups)
<i>Actaea pachypoda</i> Elliott	Hybrid Baneberry
<i>Actaea rubra</i> (Aiton) Willd.	White Baneberry
<i>Anemone cylindrica</i> A. Gray	Red Baneberry
<i>Anemone virginiana</i> L.	Long-fruited Anemone
<i>†Aquilegia canadensis</i> L.	Tall Anemone
<i>†Aquilegia vulgaris</i> L.	Red Columbine
<i>Caltha palustris</i> L.	European Columbine
<i>Clematis virginiana</i> L.	Yellow Marsh Marigold
<i>Coptis trifolia</i> (L.) Salisb.	Virginia Clematis
<i>Hepatica acutiloba</i> DC.	Goldthread
<i>Ranunculus abortivus</i> L.	Sharp-lobed Hepatica
<i>Ranunculus acris</i> L.	Kidney-leaved Buttercup
	Common Buttercup

Poppies, Barberries & Buttercups

(Poppies)
Greater Celandine
Squirrel-corn
Bloodroot

(Barberries)
Japanese Barberry
Blue Cohosh
May-apple

(Buttercups)
Hybrid Baneberry
White Baneberry
Red Baneberry
Long-fruited Anemone
Tall Anemone
Red Columbine
European Columbine
Yellow Marsh Marigold
Virginia Clematis
Goldthread
Sharp-lobed Hepatica
Kidney-leaved Buttercup
Common Buttercup

<i>Ranunculus recurvatus</i> Poir.	Hooked Buttercup
<i>Ranunculus sceleratus</i> L.	Cursed Buttercup
<i>Thalictrum dioicum</i> L.	Early Meadow-rue
<i>Thalictrum pubescens</i> Pursh	Tall Meadow-rue

SUPERROSIDS

SAXIFRAGALES

Hamamelidaceae

Hamamelis virginiana L.

Grossulariaceae

†*Ribes alpinum* L.

Ribes americanum Miller

Ribes cynosbati L.

†*Ribes hirtellum* Michx.

*†*Ribes lacustre* (Pers.) Poir.

Ribes rubrum L.

Ribes triste Pall.

Saxifrages & Allies

(Witch-hazels)

American Witch-hazel

(Currants)

Alpine Currant

American Black Currant

Eastern Prickly Gooseberry

Swamp Gooseberry

Bristly Black Currant

European Red Currant

Swamp Red Currant

Saxifragaceae

†*Chrysosplenium americanum* Schwein. ex Hook.

Mitella diphylla L.

Mitella nuda L.

Tiarella cordifolia L.

(Saxifrages)

American Golden-saxifrage

Two-leaved Mitrewort

Naked Mitrewort

Heart-leaved Foamflower

Crassulaceae

Hylotelephium telephium (L.) H. Ohba

Sedum acre L.

(Stonecrops)

Garden Stonecrop

Mossy Stonecrop

ROSIDS

VITALES

Vitaceae

Parthenocissus vitacea (Knerr) A.S. Hitchc.

Vitis riparia Michx.

Grapes

(Grapes)

Thicket Creeper

Riverbank Grape

FABALES

Fabaceae

Amphicarpaea bracteata (L.) Fern.

Desmodium canadense (L.) DC.

Gleditsia triacanthos L.

Hylodesmum glutinosum (Muhlenb. ex Willd.) H. Ohashi & R.R. Mill Large Tick-trefoil

Lotus corniculatus L.

Medicago lupulina L.

Medicago sativa L.

Legumes & Milkworts

(Legumes)

American Hog-peanut

Showy Tick Trefoil

Honey Locust

Garden Bird's-foot Trefoil

Black Medick

Alfalfa

<i>Melilotus albus</i> Medik.	White Sweet-clover
<i>Melilotus officinalis</i> (L.) Pall.	Yellow Sweet-clover
<i>Robinia pseudoacacia</i> L.	Black Locust
<i>Trifolium campestre</i> Schreb.	Low Hop Clover
<i>Trifolium hybridum</i> L.	Alsike Clover
<i>Trifolium pratense</i> L.	Red Clover
<i>Trifolium repens</i> L.	White Clover
<i>Vicia cracca</i> L.	Tufted Vetch
<i>Vicia sativa</i> L.	Common Vetch
<i>Vicia tetrasperma</i> (L.) Schreb.	Four-seed Vetch

Polygalaceae

Polygaloides paucifolia (Willd.) J.R. Abbott

ROSALES

Rosaceae

<i>Agrimonia gryposepala</i> Wallr.	(Roses)
† <i>Amelanchier arborea</i> (Michx. f.) Fern.	Hooked Agrimony
† <i>Amelanchier interior</i> Nielson	Downy Serviceberry
† <i>Amelanchier laevis</i> Wiegand	Inland Serviceberry
† <i>Crataegus chrysocarpa</i> Ashe	Smooth Serviceberry
<i>Crataegus</i> sect. <i>Coccineae</i> Loudon	Fireberry Hawthorn
† <i>Crataegus macracantha</i> Lodd. ex Loudon	Hawthorn sp. sect. <i>Coccineae</i>
<i>Crataegus monogyna</i> Jacq.	Large-thorned Hawthorn
<i>Crataegus punctata</i> Jacq.	English Hawthorn
† <i>Crataegus submollis</i> Sarg.	Dotted Hawthorn
† <i>Crataegus succulenta</i> Schrad. ex Link	Quebec Hawthorn
† <i>Drymocallis arguta</i> (Pursh) Rydb.	Fleshy Hawthorn
<i>Fragaria vesca</i> L.	Tall Wood Beauty
<i>Fragaria virginiana</i> Miller	Woodland Strawberry
<i>Geum aleppicum</i> Jacq.	Wild Strawberry
<i>Geum canadense</i> Jacq.	Yellow Avens
† <i>Geum fragarioides</i> (Michx.) Smedmark	White Avens
† <i>Geum laciniatum</i> Murray	Barren Strawberry
† <i>Geum rivale</i> L.	Rough Avens
<i>Geum urbanum</i> L.	Water Avens
<i>Malus pumila</i> Miller	Wood Avens
<i>Potentilla norvegica</i> L.	Common Apple
<i>Potentilla recta</i> L.	Rough Cinquefoil
<i>Prunus nigra</i> Aiton	Sulphur Cinquefoil
<i>Prunus pensylvanica</i> L. f.	Canada Plum
<i>Prunus serotina</i> Ehrh.	Pin Cherry
<i>Prunus virginiana</i> L.	Black Cherry
<i>Pyrus communis</i> L.	Choke Cherry
<i>Rosa blanda</i> Aiton	Common Pear
† <i>Rosa carolina</i> L.	Smooth Rose
<i>Rosa multiflora</i> Thunb. ex Murray	Carolina Rose
<i>Rubus allegheniensis</i> Porter	Multiflora Rose
	Allegheny Blackberry

(Milkworts)
Fringed Milkwort

Roses & Allies

	(Roses)
† <i>Amelanchier arborea</i> (Michx. f.) Fern.	Hooked Agrimony
† <i>Amelanchier interior</i> Nielson	Downy Serviceberry
† <i>Amelanchier laevis</i> Wiegand	Inland Serviceberry
† <i>Crataegus chrysocarpa</i> Ashe	Smooth Serviceberry
<i>Crataegus</i> sect. <i>Coccineae</i> Loudon	Fireberry Hawthorn
† <i>Crataegus macracantha</i> Lodd. ex Loudon	Hawthorn sp. sect. <i>Coccineae</i>
<i>Crataegus monogyna</i> Jacq.	Large-thorned Hawthorn
<i>Crataegus punctata</i> Jacq.	English Hawthorn
† <i>Crataegus submollis</i> Sarg.	Dotted Hawthorn
† <i>Crataegus succulenta</i> Schrad. ex Link	Quebec Hawthorn
† <i>Drymocallis arguta</i> (Pursh) Rydb.	Fleshy Hawthorn
<i>Fragaria vesca</i> L.	Tall Wood Beauty
<i>Fragaria virginiana</i> Miller	Woodland Strawberry
<i>Geum aleppicum</i> Jacq.	Wild Strawberry
<i>Geum canadense</i> Jacq.	Yellow Avens
† <i>Geum fragarioides</i> (Michx.) Smedmark	White Avens
† <i>Geum laciniatum</i> Murray	Barren Strawberry
† <i>Geum rivale</i> L.	Rough Avens
<i>Geum urbanum</i> L.	Water Avens
<i>Malus pumila</i> Miller	Wood Avens
<i>Potentilla norvegica</i> L.	Common Apple
<i>Potentilla recta</i> L.	Rough Cinquefoil
<i>Prunus nigra</i> Aiton	Sulphur Cinquefoil
<i>Prunus pensylvanica</i> L. f.	Canada Plum
<i>Prunus serotina</i> Ehrh.	Pin Cherry
<i>Prunus virginiana</i> L.	Black Cherry
<i>Pyrus communis</i> L.	Choke Cherry
<i>Rosa blanda</i> Aiton	Common Pear
† <i>Rosa carolina</i> L.	Smooth Rose
<i>Rosa multiflora</i> Thunb. ex Murray	Carolina Rose
<i>Rubus allegheniensis</i> Porter	Multiflora Rose
	Allegheny Blackberry

<i>Rubus idaeus</i> L. ssp. <i>strigosus</i> (Michx.) Focke.	Red Raspberry
<i>Rubus occidentalis</i> L.	Black Raspberry
<i>Rubus odoratus</i> L.	Purple-flowering Raspberry
<i>Rubus pubescens</i> Raf.	Dwarf Raspberry
<i>Sorbus aucuparia</i> L.	European Mountain-ash
Rhamnaceae	(Buckthorns)
<i>Rhamnus cathartica</i> L.	European Buckthorn
Ulmaceae	(Elms)
<i>Ulmus americana</i> L.	White Elm
Urticaceae	(Nettles)
<i>Boehmeria cylindrica</i> (L.) Sw.	Small-spike False Nettle
<i>Laportea canadensis</i> (L.) Wedd.	Canada Wood Nettle
† <i>Pilea fontana</i> (Lunell) Rydb.	Lesser Clearweed
<i>Pilea pumila</i> (L.) A. Gray	Dwarf Clearweed
<i>Urtica dioica</i> L. ssp. <i>gracilis</i> (Aiton) Solander	Stinging Nettle
FAGALES	Beeches, Walnuts & Birches
Fagaceae	(Beeches)
<i>Fagus grandifolia</i> Ehrh.	American Beech
<i>Quercus alba</i> L.	White Oak
<i>Quercus macrocarpa</i> Michx.	Bur Oak
<i>Quercus rubra</i> L.	Northern Red Oak
Juglandaceae	(Walnuts)
<i>Carya cordiformis</i> (Wangenh.) K. Koch	Bitternut Hickory
<i>Juglans cinerea</i> L.	Butternut
<i>Juglans nigra</i> L.	Black Walnut
Betulaceae	(Birches)
<i>Betula alleghaniensis</i> Britton	Yellow Birch
<i>Betula papyrifera</i> Marshall	Paper Birch
<i>Carpinus caroliniana</i> Walter	Blue Beech
<i>Corylus cornuta</i> Marshall	Beaked Hazelnut
<i>Ostrya virginiana</i> (Miller) K. Koch	Eastern Hop Hornbeam
CUCURBITALES	Gourds
Cucurbitaceae	(Gourds)
† <i>Cucurbita</i> sp.	Domestic Gourd sp.
<i>Echinocystis lobata</i> (Michx.) Torr. & A. Gray	Wild Cucumber

CELASTRALES

Celastraceae

***Celastrus scandens* L.**

†*Euonymus alatus* (Thunb.) Siebold

Bittersweets

(Bittersweets)

Climbing Bittersweet

Winged Euonymus

OXALIDALES

Oxalidaceae

†***Oxalis montana* Raf.**

***Oxalis stricta* L.**

Wood-sorrels

(Wood-sorrels)

White Wood-sorrel

European Wood-sorrel

MALPIGHIALES

Hypericaceae

Hypericum perforatum L.

†***Hypericum punctatum* Lam.**

Violets & Allies

(St. John's-worts)

Common St. John's-wort

Spotted St. John's-wort

Violaceae

Viola arvensis Murray

†***Viola blanda* Willd.**

***Viola canadensis* L.**

***Viola cucullata* Aiton**

***Viola labradorica* Schrank**

†***Viola macloskeyi* F. E. Lloyd**

***Viola pubescens* Aiton**

***Viola renifolia* A. Gray**

***Viola rostrata* Pursh**

†***Viola selkirkii* Pursh ex Goldie**

***Viola sororia* Willd. (s.l.)**

(Violets)

European Field Pansy

Sweet White Violet

Canada Violet

Marsh Blue Violet

Labrador Violet

Macloskey's Violet

Downy Yellow Violet

Kidney-leaved Violet

Long-spurred Violet

Selkirk's Violet

Wooly Blue Violet

Salicaceae

***Populus balsamifera* L.**

***Populus grandidentata* Michx.**

***Populus tremuloides* Michx.**

***Salix amygdaloides* Anderss.**

***Salix bebbiana* Sarg.**

***Salix discolor* Muhlenb.**

†***Salix eriocephala* Michx.**

†***Salix fragilis* L.**

†***Salix interior* Rowlee**

***Salix lucida* Muhlenb.**

***Salix petiolaris* Sm.**

†***Salix serissima* (L. H. Bailey) Fern.**

(Willows)

Balsam Poplar

Large-toothed Aspen

Trembling Aspen

Peach-leaved Willow

Bebb's Willow

Pussy Willow

Cottony Willow

Hybrid White Willow

Sandbar Willow

Shining Willow

Meadow Willow

Autumn Willow

Euphorbiaceae	(Spurges)
<i>Acalypha rhomboidea</i> (Raf.) Cooperr.	Common Three-seeded Mercury
† <i>Euphorbia glyptosperma</i> Engelm.	Ridge-seeded Spurge
† <i>Euphorbia maculata</i> (L.)	Spotted Spurge
<i>Euphorbia cyparissias</i> L.	Cypress Spurge
<i>Euphorbia virgata</i> Waldst. & Kit.	Leafy Spurge
GERANIALES	Geraniums
Geraniaceae	(Geraniums)
<i>Geranium robertianum</i> L.	Herb-Robert
MYRTALES	Loosestrifes & Evening-primroses
Lythraceae	(Loosestrifes)
<i>Lythrum salicaria</i> L.	Purple Loosestrife
Onagraceae	(Evening-primroses)
<i>Circaeа alpina</i> L.	Small Enchanter's Nightshade
<i>Circaeа canadensis</i> (L.) Hill subsp. <i>canadensis</i>	Canada Enchanter's Nightshade
<i>Epilobium ciliatum</i> Raf.	Northern Willow-herb
† <i>Epilobium hirsutum</i> L.	Hairy Willowherb
† <i>Epilobium leptophyllum</i> Raf.	Linear-leaved Willowherb
<i>Epilobium parviflorum</i> Schreb.	Small-flowered Willowherb
† <i>Epilobium strictum</i> Muhlenb. ex Spreng.	Downy Willowherb
<i>Oenothera biennis</i> L.	Common Evening-primrose
<i>Oenothera parviflora</i> L.	Small-flowered Evening-primrose
<i>Oenothera perennis</i> L.	Perennial Evening-primrose
<i>Oenothera villosa</i> Thunb. ssp. <i>villosa</i>	Hairy Evening-primrose
SAPINDALES	Sumacs, Maples & Allies
Anacardiaceae	(Sumacs)
<i>Rhus typhina</i> L.	Staghorn Sumac
<i>Toxicodendron radicans</i> (L.) Kuntze	Poison Ivy
Sapindaceae	(Maples & Allies)
<i>Acer negundo</i> L.	Manitoba Maple
*† <i>Acer nigrum</i> Michx. f.	Black Maple
<i>Acer platanoides</i> L.	Norway Maple
<i>Acer rubrum</i> L.	Red Maple
<i>Acer saccharinum</i> L.	Silver Maple
<i>Acer saccharum</i> Marshall	Sugar Maple
<i>Acer spicatum</i> Lam.	Mountain Maple
† <i>Acer tataricum</i> L. ssp. <i>ginnala</i> (Maxim.) Wesm.	Amur Maple

MALVALES

Malvaceae

Malva neglecta Wallr.

***Tilia americana* L.**

†*Tilia cordata* Miller

Thymelaeaceae

***Dirca palustris* L.**

Cistaceae

†*Lechea intermedia* Legg.

BRASSICALES

Cleomaceae

†*Tarenaya hassleriana* (Chodat) H.H. Iltis

Brassicaceae

Alliaria petiolata (M. Bieb.) Cavara & Grande

Alyssum alyssoides (L.) L.

Barbarea vulgaris R. Br.

†*Camelina microcarpa* Andrz. ex DC.

Capsella bursa-pastoris (L.) Medik.

***Cardamine diphylla* (Michx.) Wood**

†*Cardamine hirsuta* L.

***Cardamine pensylvanica* Muhlenb. ex Willd.**

Descurainia sophia (L.) Webb ex Prantl

Draba verna (L.)

Erysimum cheiranthoides L.

Hesperis matronalis L.

Lepidium campestre (L.) R.Br.

Lepidium densiflorum Schrad.

Nasturtium officinale W. T. Aiton

†***Rorippa palustris* (L.) Besser ssp. *hispida* (Desv.) Jonsell**

Sinapis arvensis L.

Sisymbrium officinale (L.) Scop.

Thlaspi arvense L.

***Turritis glabra* (L.) Bernh.**

Mallows & Allies

(Mallows)

Common Mallow

Basswood

Little-leaved Linden

(Mezereums)

Eastern Leatherwood

(Rockroses)

Large-pod Pinweed

Mustards & Allies

(Spiderflowers)

Pink-queen

(Mustards)

Garlic Mustard

Small Alyssum

Bitter Wintercress

Small-seeded False-flax

Common Shepherd's Purse

Two-leaved Toothwort

Hairy Bittercress

Pennsylvania Bittercress

Flixweed

Spring Draba

Wormseed Wallflower

Dame's Rocket

Field Peppergrass

Common Peppergrass

Watercress

Hispid Marsh Yellowcress

Corn Mustard

Common Tumble Mustard

Field Pennycress

Tower Mustard

SUPERASTERIDS

CARYOPHYLLALES

Polygonaceae

Fallopia convolvulus (L.) Å. Löve
†*Persicaria hydropiper* (L.) Opiz
***Persicaria lapathifolia* (L.) Gray**
Persicaria maculosa S. F. Gray
***Polygonum achoreum* Blake**
***Polygonum aviculare* L.**
Rumex acetosella L.
***Rumex britannica* L.**
Rumex crispus L.
Rumex obtusifolius L.

Caryophyllaceae

Arenaria serpyllifolia L.
Cerastium fontanum Baumg.
Dianthus armeria L.
Saponaria officinalis L.
***Silene antirrhina* L.**
Silene latifolia Poir.
Silene noctiflora L.
Silene vulgaris (Moench) Garcke
†*Stellaria graminea* L.
†***Stellaria longifolia* Muhlenb. ex Willd.**
Stellaria media (L.) Vill.

Amaranthaceae

†*Amaranthus albus* L.
Amaranthus retroflexus L.
Atriplex patula L.
†***Chenopodium simplex* (Torrey) S. Fuentes, Uotila & Borsch**
Chenopodium album L.
†*Oxybasis glauca* (L.) S. Fuentes, Uotila & Borsch.
†*Oxybasis rubra* (L.) S. Fuentes, Uotila & Borsch

Montiaceae

Claytonia caroliniana Michx.

Portulacaceae

Portulaca oleracea L.

Pinks & Allies

(Buckwheats)

Eurasian Black Bindweed
Marshpepper Smartweed
Pale Smartweed
Spotted Lady's-thumb
Leathery Knotweed
Prostrate Knotweed
Sheep Sorrel
Great Water Dock
Curled Dock
Bitter Dock

(Pinks)

Thyme-leaved Sandwort
Common Mouse-ear Chickweed
Deptford Pink
Bouncing-bet
Sleepy Catchfly
White Campion
Night-flowering Catchfly
Bladder Campion
Grass-leaved Starwort
Long-leaved Starwort
Common Chickweed

(Amaranths)

White Amaranth
Redroot Amaranth
Spear Saltbush
Maple-leaved Goosefoot
Common Lamb's-quarters
Oak-leaved Goosefoot
Red Goosefoot

(Water Chickweeds)

Carolina Spring Beauty

(Purslanes)

Common Purslane

ASTERIDS

CORNALES

Cornaceae

Cornus alternifolia L. f.

†*Cornus canadensis* L.

Cornus rugosa Lam.

Cornus sericea L.

Dogwoods

(Dogwoods)

Alternate-leaved Dogwood

Bunchberry

Round-leaved Dogwood

Red-osier Dogwood

ERICALES

Balsaminaceae

Impatiens capensis Meerb.

Heaths & Allies

(Touch-Me-Nots)

Spotted Jewelweed

Primulaceae

Lysimachia borealis (Rafinesque) U. Manns & Anderberg

Lysimachia ciliata L.

(Primroses)

Northern Starflower

Fringed Loosestrife

Ericaceae

†*Chimaphila umbellata* (L.) Barton

Gaultheria procumbens L.

†*Hypopitys monotropa* Crantz

†*Moneses uniflora* (L.) A. Gray

Monotropa uniflora L.

†*Pyrola americana* Sweet

†*Pyrola asarifolia* Michx.

Pyrola elliptica Nutt.

Vaccinium angustifolium Aiton

(Heaths)

Common Pipsissewa

Eastern Teaberry

Pinesap

One-flowered Wintergreen

Indian-pipe

Round-leaved Pyrola

Pink Pyrola

Shinleaf

Early Lowbush Blueberry

GENTIANALES

Rubiaceae

Galium aparine L.

†*Galium boreale* L.

Galium circaeans Michx.

†*Galium lanceolatum* Torr.

Galium mollugo L.

†*Galium palustre* L.

†*Galium tinctorium* L.

*†*Galium trifidum* L.

Galium triflorum Michx.

Galium verum L.

Mitchella repens L.

Gentians, Bedstraws & Milkweeds

(Bedstraws)

Common Bedstraw

Northern Bedstraw

Wild Licorice

Lance-leaved Wild Licorice

Smooth Bedstraw

Common Marsh Bedstraw

Dyer's Bedstraw

Three-petalled Bedstraw

Three-flowered Bedstraw

Yellow Bedstraw

Partridgeberry

Gentianaceae

†*Gentiana andrewsii* Griseb.

†*Gentianopsis crinita* (Froel.) Ma

(Gentians)

Andrews' Bottle Gentian

Greater Fringed Gentian

Apocynaceae	(Milkweeds)
<i>Apocynum androsaemifolium</i> L.	Spreading Dogbane
<i>Apocynum cannabinum</i> L.	Hemp Dogbane
<i>Asclepias incarnata</i> L.	Swamp Milkweed
<i>Asclepias syriaca</i> L.	Common Milkweed
<i>Asclepias tuberosa</i> L.	Butterfly Milkweed
<i>Vinca minor</i> L.	Lesser Periwinkle
† <i>Vincetoxicum rossicum</i> (Kleopov) Barbarich	European Swallowwort

BORAGINALES

Boraginaceae	(Borages)
<i>Buglossoides arvensis</i> (L.) I. M. Johnston	Corn Gromwell
<i>Cynoglossum officinale</i> L.	Common Hound's-tongue
<i>Echium vulgare</i> L.	Common Viper's Bugloss
<i>Hackelia virginiana</i> (L.) I. M. Johnston	Virginia Stickseed
*† <i>Hydrophyllum canadense</i> L.	Bluntleaf Waterleaf
<i>Hydrophyllum virginianum</i> (L.)	Virginia Waterleaf
<i>Myosotis scorpioides</i> L.	True Forget-me-not
† <i>Myosotis sylvatica</i> Ehrh. ex H. Hoffm.	Woodland Forget-me-not

SOLANALES

Convolvulaceae	(Bindweeds)
<i>Calystegia sepium</i> (L.) R. Br.	Hedge False Bindweed
† <i>Calystegia spithamea</i> (L.) Pursh	Low False Bindweed
<i>Convolvulus arvensis</i> L.	Field Bindweed
† <i>Cuscuta gronovii</i> Willd. ex Schult.	Swamp Dodder

Solanaceae	(Nightshades)
<i>Physalis heterophylla</i> Nees	Clammy Ground-cherry
<i>Solanum dulcamara</i> L.	Bittersweet Nightshade
† <i>Solanum nigrum</i> L. (s.l.)	Black Nightshade
† <i>Solanum tuberosum</i> L.	Potato

LAMIALES

Oleaceae	(Olives)
<i>Fraxinus americana</i> L.	White Ash
<i>Fraxinus nigra</i> Marshall	Black Ash
† <i>Fraxinus pennsylvanica</i> Marshall	Red Ash
<i>Ligustrum vulgare</i> L.	European Privet
<i>Syringa vulgaris</i> L.	Common Lilac

Borages

(Borages)
Corn Gromwell
Common Hound's-tongue
Common Viper's Bugloss
Virginia Stickseed
Bluntleaf Waterleaf
Virginia Waterleaf
True Forget-me-not
Woodland Forget-me-not

Nightshades & Bindweeds

(Bindweeds)
Hedge False Bindweed
Low False Bindweed
Field Bindweed
Swamp Dodder

(Nightshades)
Clammy Ground-cherry
Bittersweet Nightshade
Black Nightshade
Potato

Mints & Allies

(Olives)
White Ash
Black Ash
Red Ash
European Privet
Common Lilac

Plantaginaceae	(Plantains)
<i>Chaenorhinum minus</i> (L.) Lange	Dwarf Snapdragon
<i>Chelone glabra</i> L.	White Turtlehead
† <i>Gratiola neglecta</i> Torr.	Clammy Hedge-hyssop
<i>Linaria vulgaris</i> Miller	Butter-and-eggs
† <i>Penstemon digitalis</i> Nutt. ex Sims	Foxglove Beardtongue
<i>Plantago major</i> L.	Common Plantain
<i>Plantago lanceolata</i> L.	English Plantain
<i>Plantago rugelii</i> Decne.	Rugel's Plantain
Veronica americana (Raf.) Schwein. ex Benth.	American Speedwell
<i>Veronica arvensis</i> L.	Corn Speedwell
<i>Veronica officinalis</i> L.	Common Speedwell
<i>Veronica peregrina</i> L. ssp. <i>peregrina</i>	Purslane Speedwell
<i>Veronica serpyllifolia</i> L.	Thyme-leaved Speedwell
Scrophulariaceae	(Figworts)
<i>Verbascum thapsus</i> L.	Common Mullein
Verbenaceae	(Vervains)
<i>Verbena hastata</i> L.	Blue Vervain
† <i>Verbena stricta</i> Vent.	Hoary Vervain
<i>Verbena urticifolia</i> L.	White Vervain
Lamiaceae	(Mints)
<i>Clinopodium vulgare</i> L.	Wild Basil
<i>Galeopsis tetrahit</i> L.	Common Hemp-nettle
<i>Glechoma hederacea</i> L.	Ground-ivy
† <i>Hedeoma hispida</i> Pursh	Rough False Pennyroyal
† <i>Lamium amplexicaule</i> L.	Common Dead-nettle
<i>Leonurus cardiaca</i> L.	Common Motherwort
<i>Lycopus americanus</i> Muhlenb. ex Bartram	American Water-horehound
<i>Lycopus uniflorus</i> Michx.	Northern Water-horehound
<i>Mentha canadensis</i> L.	Canada Mint
<i>Mentha ×piperita</i> L.	Peppermint
<i>Monarda fistulosa</i> L.	Wild Bergamot
<i>Nepeta cataria</i> L.	Catnip
<i>Origanum vulgare</i> L.	Wild Marjoram
<i>Prunella vulgaris</i> L.	Common Self-heal
<i>Scutellaria lateriflora</i> L.	Mad-dog Skullcap
Phrymaceae	(Lopseeds)
<i>Mimulus ringens</i> L.	Square-stemmed Monkeyflower
<i>Phryma leptostachya</i> L.	Lopseed
Orobanchaceae	(Broomrapes)
<i>Epifagus virginiana</i> (L.) Bart.	Beech-drops

ASTERALES

Campanulaceae

- Campanula aparinoides* Pursh
Campanula persicifolia L.
Campanula rapunculoides L.
Lobelia inflata L.
Lobelia siphilitica L.
Lobelia spicata Lam.

Asteraceae

- Achillea borealis* Bong.
Ageratina altissima (L.) King & H. E. Robins.
Ambrosia artemisiifolia L.
Anaphalis margaritacea (L.) Benth. & Hook. F.
†*Antennaria neglecta* Greene
Antennaria parlinii Fern.
Arctium lappa L.
Arctium minus (Hill) Bernh.
†*Artemisia biennis* Willd.
†*Artemisia ludoviciana* Nutt.
Bidens cernua L.
Bidens frondosa L.
Bidens tripartita L. (s.l.)
†*Bidens vulgata* Greene
Carduus acanthoides L.
Carduus nutans L.
Centaurea jacea L.
Cichorium intybus L.
Cirsium arvense (L.) Scop.
Cirsium vulgare (Savi) Ten.
Crepis capillaris (L.) Wallr.
Erigeron annuus (L.) Pers.
Erigeron canadensis L.
Erigeron philadelphicus L.
†*Erigeron pulchellus* Michx.
Erigeron strigosus Muhlenb. ex Willd.
Eupatorium perfoliatum L.
Eurybia macrophylla (L.) Cass.
Euthamia graminifolia (L.) Nutt.
Eutrochium maculatum (L.) E. E. Lamont
Galinsoga quadriradiata Cav.
Inula helenium L.
Lactuca biennis (Moench) Fern.
Lactuca canadensis L.
Lactuca serriola L.
Lapsana communis L.
Leucanthemum vulgare (Vaill.) Lam.
Matricaria discoidea DC.

Asters & Bellflowers

(Bellflowers)

- Marsh Bellflower**
Peach-leaved Bellflower
Common Bellflower
Indian-tobacco
Great Blue Lobelia
Pale-spiked Lobelia

(Asters)

- Common Yarrow**
Common White Snakeroot
Common Ragweed
Pearly Everlasting
Field Pussytoes
Parlin's Pussytoes
Great Burdock
Common Burdock
Biennial Wormwood
Silver Wormwood
Nodding Beggarticks
Devil's Beggarticks
Three-parted Beggarticks
Tall Beggarticks
Plumeless Thistle
Nodding Thistle
Brown Knapweed
Wild Chicory
Canada Thistle
Bull Thistle
Smooth Hawksbeard
Annual Fleabane
Canada Horseweed
Philadelphia Fleabane
Robin's-plantain Fleabane
Rough Fleabane
Common Boneset
Large-leaved Aster
Grass-leaved Goldenrod
Spotted Joe Pye Weed
Hairy Galinsoga
Elecampagne
Tall Blue Lettuce
Canada Lettuce
Prickly Lettuce
Common Nipplewort
Oxeye Daisy
Pineappleweed

<i>Nabalus altissimus</i> (L.) Hook.	Tall Rattlesnakeroot
† <i>Packera aurea</i> (L.) A. & D. Löve	Golden Groundsel
<i>Pilosella aurantiaca</i> (L.) F. W. Schult. & Schult. Bipontinus	Orange Hawkweed
<i>Pilosella caespitosa</i> (Dumortier) P. D. Sell & C. West	Meadow Hawkweed
<i>Pilosella officinarum</i> F.W. Schult. & Schult. Bipontinus	Mouse-ear Hawkweed
<i>Pilosella piloselloides</i> (Villars) Soják	Tall Hawkweed
<i>Pseudognaphalium obtusifolium</i> (L.) Hilliard & Burtt	Fragrant Cudweed
<i>Rudbeckia hirta</i> L.	Black-eyed Susan
<i>Rudbeckia triloba</i> L.	Brown-eyed Susan
† <i>Senecio viscosus</i> L.	Sticky Ragwort
<i>Senecio vulgaris</i> L.	Common Ragwort
<i>Solidago altissima</i> L.	Tall Goldenrod
* <i>Solidago arguta</i> Aiton	Cut-leaved Goldenrod
<i>Solidago caesia</i> L.	Blue-stemmed Goldenrod
<i>Solidago canadensis</i> L.	Canada Goldenrod
<i>Solidago flexicaulis</i> L.	Zigzag Goldenrod
<i>Solidago gigantea</i> Aiton	Giant Goldenrod
<i>Solidago nemoralis</i> Aiton	Gray-stemmed Goldenrod
<i>Solidago rugosa</i> Miller	Rough-stemmed Goldenrod
† <i>Solidago uliginosa</i> Nutt.	Bog Goldenrod
<i>Sonchus arvensis</i> L.	Field Sow-thistle
<i>Sonchus asper</i> (L.) Hill	Prickly Sow-thistle
<i>Sonchus oleraceus</i> L.	Annual Sow-thistle
† <i>Symphyotrichum ×amethystinum</i> (Nutt.) Nesom	Amethyst Aster
<i>Symphyotrichum cordifolium</i> (L.) G. L. Nesom	Heart-leaved Aster
<i>Symphyotrichum ericoides</i> (L.) G. L. Nesom	White Heath Aster
<i>Symphyotrichum lanceolatum</i> (Willd.) Nesom	White Paniced Aster
<i>Symphyotrichum lateriflorum</i> (L.) A. & D. Löve	Calico Aster
<i>Symphyotrichum novae-angliae</i> (L.) Nesom	New England Aster
<i>Symphyotrichum oolentangiense</i> (Riddell) G. L. Nesom	Sky-blue Aster
† <i>Symphyotrichum pilosum</i> (Willd.) Nesom	Old Field Aster
<i>Symphyotrichum puniceum</i> (L.) A. & D. Löve	Purple-stemmed Aster
† <i>Symphyotrichum urophyllum</i> (Lindl.) Nesom	Arrow-leaved Aster
† <i>Tanacetum vulgare</i> L.	Common Tansy
† <i>Taraxacum erythrospermum</i> Anderz. ex Besser	Red-seeded Dandelion
<i>Taraxacum officinale</i> G. H. Weber ex Wiggers	Common Dandelion
<i>Taraxacum palustre</i> (Lyons) DC. (s.l.)	Marsh Dandelion
<i>Tragopogon dubius</i> Scop.	Yellow Goatsbeard
<i>Tragopogon pratensis</i> L.	Meadow Goatsbeard
<i>Tussilago farfara</i> L.	Coltsfoot

DIPSACALES

Araliaceae

Sambucus canadensis L.

Sambucus racemosa L.

Viburnum acerifolium L.

†*Viburnum lantana* L.

†*Viburnum lantanoides* Michx.

Viburnum lentago L.

†*Viburnum nudum* L. var. *cassinoides* (L.) Torr. & Gray

†*Viburnum opulus* L. var. *opus*

*†*Viburnum opulus* var. *americanum* Aiton

Caprifoliaceae

Diervilla lonicera Miller

Dipsacus fullonum L.

†*Linnaea borealis* L.

†*Lonicera ×bella* Zabel

Lonicera canadensis Bartram ex Marshall

Lonicera dioica L.

†*Lonicera hirsuta* Eaton

†*Lonicera tatarica* L.

Symporicarpos albus (L.) S. F. Blake

Triosteum aurantiacum E. P. Bicknell

Valeriana officinalis L.

APIALES

Araliaceae

Aralia nudicaulis L.

Aralia racemosa L.

Panax quinquefolius L.

Apiaceae

Cryptotaenia canadensis (L.) DC.

Daucus carota L.

Hydrocotyle americana L.

Osmorrhiza claytonii (Michx.) C. B. Clarke

Sanicula marilandica L.

**Sium suave* Walter

Moschatels & Honeysuckles

(Moschatels)

Common Elderberry

Red Elderberry

Maple-leaved Viburnum

Wayfaring Viburnum

Hobblebush

Nannyberry

Wild Raisin

Cranberry Viburnum

Highbush Cranberry

(Honeysuckles)

Northern Bush-honeysuckle

Common Teasel

Twinflower

Bell's Honeysuckle

Canada Fly Honeysuckle

Limber Honeysuckle

Hairy Honeysuckle

Tartarian Honeysuckle

Thin-leaved Snowberry

Orange-fruited Horse-gentian

Common Valerian

Carrots & Ginsengs

(Ginsengs)

Wild Sarsaparilla

American Spikenard

American Ginseng

(Carrots)

Canada Honewort

Wild Carrot

American Water-pennywort

Hairy Sweet Cicely

Maryland Sanicle

Common Water-parsnip

AMPHIBIANS AND REPTILES OF THE KOFFLER SCIENTIFIC RESERVE AT JOKERS HILL
King Township, Regional Municipality of York

Tubba Babar¹ and Peter M. Kotanen^{1*}

¹Department of Ecology & Evolutionary Biology
University of Toronto Mississauga

3359 Mississauga Road, Mississauga, ON, Canada L5L 1C6

*Correspondence author. e-mail: peter.kotanen@utoronto.ca

The first edition of this list was compiled by C. Sean Blaney and was published as an appendix to his M.Sc. thesis (Blaney C.S. 1999. Seed bank dynamics of native and exotic plants in open uplands of southern Ontario. University of Toronto. <https://tspace.library.utoronto.ca/handle/1807/14382/>). It subsequently was formatted for the web by P.M. Kotanen and made available on the Koffler Scientific Reserve website (<http://ksr.utoronto.ca/>), where it was revised periodically to reflect additions and taxonomic changes. This version represents a major revision reflecting recent phylogenetic and nomenclatural changes and adding additional species.

This list is based on observations at this site by C.S. Blaney, P.M. Kotanen, and others beginning in 1997, supplemented with observations by property manager W. Fox between 1971 and 1998.

Phylogenetic classification and scientific and English nomenclature follow the Society for the Study of Amphibians and Reptiles (SSAR) North American Species Names Database (<https://ssarherps.org/publications/north-american-checklist/>).

The list includes all amphibians and reptiles observed within the Koffler Scientific Reserve during the observation period. All of the 10 amphibians and 6 reptiles listed are locally native. Information on any additional species (preferably with photographs) would be welcomed by the authors.

AMPHIBIANS

CAUDATA

Ambystomatidae

Ambystoma maculatum (Shaw)

Salamandridae

Notophthalmus viridescens (Rafinesque)

Plethodontidae

Plethodon cinereus (Green)

ANURA

Bufoidae

Anaxyrus americanus (Holbrook)

Hylidae

Hyla versicolor LeConte

Pseudacris crucifer (Wied-Neuwied)

Ranidae

Lithobates catesbeianus (Shaw)

Lithobates clamitans (Latrelle)

Lithobates pipiens (Schreber)

Lithobates sylvaticus (LeConte)

REPTILES

TESTUDINES

Chelydridae

Chelydra serpentina (Linnaeus)

Emydidae

Chrysemys picta (Schneider)

Emydoidea blandingii (Holbrook)

SQUAMATA

Colubridae

Diadophus punctatus (Linnaeus)

Storeria occipitomaculata (Storer)

Thamnophis sirtalis (Linnaeus)

Salamanders

(Mole Salamanders)

Spotted Salamander

(Newts)

Red-spotted Newt

(Lungless Salamanders)

Red-backed Salamander

Frogs

(Toads)

American Toad

(Treefrogs)

Gray Treefrog

Spring Peeper

(True Frogs)

Bull Frog

Green Frog

Leopard Frog

Wood Frog

Turtles

(Snapping Turtles)

Snapping Turtle

(Box & Water Turtles)

Painted Turtle

Blanding's Turtle

Snakes

(Colubrid Snakes)

Ring-necked Snake

Red-bellied Snake

Garter Snake

BIRDS OF THE KOFFLER SCIENTIFIC RESERVE AT JOKERS HILL

King Township, Regional Municipality of York

Tubba Babar¹, Theresa McKenzie, Glenn Reed, and Peter M. Kotanen^{1*}

¹Department of Ecology & Evolutionary Biology

University of Toronto Mississauga

3359 Mississauga Road, Mississauga, ON, Canada L5L 1C6

*Correspondence author. e-mail: peter.kotanen@utoronto.ca

The first edition of this list was compiled by C. Sean Blaney and was published as an appendix to his M.Sc. thesis (Blaney C.S. 1999. Seed bank dynamics of native and exotic plants in open uplands of southern Ontario. University of Toronto. <https://tspace.library.utoronto.ca/handle/1807/14382/>). It subsequently was formatted for the web by P.M. Kotanen and made available on the Koffler Scientific Reserve website (<http://ksr.utoronto.ca/>), where it was revised periodically to reflect additions and taxonomic changes. This version represents a major revision reflecting recent phylogenetic and nomenclatural changes and adding additional species.

This property was donated to the University of Toronto in 1995. This list is based on observations at this site by C.S. Blaney, P.M. Kotanen, and many others beginning in 1997, supplemented with observations by property manager W. Fox between 1971 and 1998, and by an on-site banding program conducted by T. McKenzie and G. Reed since 2013. Phylogenetic classification and scientific and English nomenclature follow the American Ornithological Society's (AOS) Checklist of North and Middle American Birds, 7th edition, 60th supplement (<http://checklist.americanornithology.org/taxa>). Breeding status codes are based on those used in the 2nd Ontario Breeding Bird Atlas (2001-2005) (<http://www.birdsontario.org/atlas/secondatlas.jsp>). The codes are:

O - Observed without evidence of breeding

M - observed only as a migrant or winter resident

X - observed during the species' breeding season without evidence of breeding

PO - breeding possible

H - observed in suitable habitat during breeding season

M - singing male observed in suitable habitat during breeding season

P - breeding probable

P - pair observed in suitable habitat during breeding season

T - singing male observed in the same area on visits separated by at least two weeks

A - agitated behaviour

D - breeding display or intraspecies hostility

N - nest building

CO - breeding confirmed

AE - adult entering presumed nest site

DD - distraction display

NU - used nest

FS - adult carrying food or faecal sac

NE - nest with eggs

NY - nest with young

FY - flightless or dependent young

This list includes all birds observed from within the boundaries of the Koffler Scientific Reserve during the observation period. Of the 186 species and hybrids listed, 182 are considered locally native, while 4 (Rock Dove, European Starling, House Sparrow, and House Finch) are introduced. Information on any additional species (preferably with photographs) would be welcomed by the authors.

ANSERIFORMES**Anatidae**

- Branta bernicla* (Linnaeus)
Branta canadensis (Linnaeus)
Cygnus buccinator Richardson
Aix sponsa (Linnaeus)
Spatula discors Linnaeus
Anas platyrhynchos Linnaeus
Anas crecca Linnaeus
Aythya americana (Eyton)
Aythya collaris (Donovan)
Bucephala albeola (Linnaeus)
Bucephala clangula (Linnaeus)
Lophodytes cucullatus (Linnaeus)
Mergus merganser Linnaeus

Ducks, Geese & Swans**(Ducks, Geese & Swans)**

- Brant O-M
Canada Goose CO-FY
Trumpeter Swan O
Wood Duck P-P
Blue-winged Teal O-M
Mallard CO-FY
Green-winged Teal O-M
Redhead O-M
Ring-necked Duck O-M
Bufflehead O-M
Common Goldeneye O-M
Hooded Merganser O-M
Common Merganser O-M

GALLIFORMES**Phasianidae**

- Bonasa umbellus* (Linnaeus)
Meleagris gallopavo Linnaeus

Fowls**(Pheasants & Grouses)**

- Ruffed Grouse CO-FY
Wild Turkey CO-FY

PODICIPEDIFORMES**Podicipedidae**

- Podilymbus podiceps* (Linnaeus)

Grebes**(Grebes)**

- Pied-billed Grebe O-M

COLUMBIFORMES**Columbidae**

- Columba livia* Gmelin
Zenaida macroura (Linnaeus)

Pigeons & Doves**(Pigeons & Doves)**

- Rock Dove CO-AE
Mourning Dove CO-FY

CUCULIFORMES**Cuculidae**

- Coccyzus americanus* (Linnaeus)
Coccyzus erythrophthalmus (A. Wilson)

Cuckoos**(Cuckoos)**

- Yellow-billed Cuckoo PO-M
Black-billed Cuckoo P-T

CAPRIMULGIFORMES**Caprimulgidae**

- Chordeiles minor* (J.R. Forster)
Antrostomus vociferus A. Wilson

Nightjars**(Nightjars)**

- Common Nighthawk O-X
Eastern Whip-poor-will PO-M

APODIFORMES**Apodidae**

- Chaetura pelasgica* (Linnaeus)

Hummingbirds & Swifts**(Swifts)**

- Chimney Swift O-X

Trochilidae	(Hummingbirds)	
<i>Archilochus colubris</i> (Linnaeus)	Ruby-throated Hummingbird	CO-NE
GRUIFORMES		
Rallidae		
Rallus limicola <i>Vieillot</i>	(Rails, Crakes & Coots)	O-M
<i>Porzana carolina</i> (Linnaeus)	Sora	O-M
<i>Fulica americana</i> Gmelin	American Coot	O-M
Gruidae		
<i>Antigone canadensis</i> (Linnaeus)	(Cranes)	O-M
CHARADRIIFORMES		
Charadriidae	(Plovers)	
<i>Charadrius vociferus</i> Linnaeus	Killdeer	CO-FY
Scolopacidae	(Sandpipers & Snipes)	
<i>Scolopax minor</i> Gmelin	American Woodcock	CO-FY
<i>Gallinago delicata</i> (Ord)	Wilson's Snipe	P-T
<i>Actitis macularius</i> (Linnaeus)	Spotted Sandpiper	PO-H
<i>Tringa solitaria</i> A. Wilson	Solitary Sandpiper	O-M
<i>Tringa melanoleuca</i> (Gmelin)	Greater Yellowlegs	O-M
Laridae	(Gulls & Terns)	
<i>Larus delawarensis</i> Ord	Ring-billed Gull	O-X
<i>Larus argentatus</i> Pontoppidan	Herring Gull	O-X
<i>Hydroprogne caspia</i> (Pallas)	Caspian Tern	O-X
GAVIIFORMES		
Gaviidae	Loons	
<i>Gavia immer</i> (Brünnich)	(Loons)	
SULIFORMES		
Phalacrocoracidae	Common Loon	O-M
<i>Phalacrocorax auritus</i> (Lesson)		
PELECANIFORMES		
Ardeidae	Cormorants	
<i>Botaurus lentiginosus</i> (Rackett)	(Cormorants)	
<i>Ardea herodias</i> Linnaeus	Double-crested Cormorant	O-X
<i>Butorides virescens</i> (Linnaeus)		
Pelicans & Herons		
(Herons & Bitterns)		
<i>American Bittern</i>	O-M	
<i>Great Blue Heron</i>	O-X	
<i>Green Heron</i>	O-X	

CATHARTIFORMES

Cathartidae

Cathartes aura (Linnaeus)

ACCIPITRIFORMES

Pandionidae

Pandion haliaetus (Linnaeus)

Accipitridae

Circus hudsonius (Linnaeus)
Accipiter striatus Vieillot
Accipiter cooperii (Bonaparte)
Accipiter gentilis (Linnaeus)
Haliaeetus leucocephalus (Linnaeus)
Buteo lineatus (Gmelin)
Buteo platypterus (Vieillot)
Buteo jamaicensis (Gmelin)

STRIGIFORMES

Strigidae

Megascops asio (Linnaeus)
Bubo virginianus (Gmelin)
Bubo scandiacus (Linnaeus)
Strix varia Barton
Strix nebulosa J.R. Forster
Asio otus (Linnaeus)
Aegolius acadicus (Gmelin)

CORACIIFORMES

Alcedinidae

Megaceryle alcyon (Linnaeus)

PICIFORMES

Picidae

Melanerpes erythrocephalus (Linnaeus)
Melanerpes carolinus (Linnaeus)
Sphyrapicus varius (Linnaeus)
Dryobates pubescens (Linnaeus)
Dryobates villosus (Linnaeus)
Colaptes auratus (Linnaeus)
Dryocopus pileatus (Linnaeus)

New World Vultures

(New World Vultures)

Turkey Vulture O-X

Hawks

(Ospreys)

Osprey O-M

(Hawks & Eagles)

Northern Harrier	PO-H
Sharp-shinned Hawk	CO-FS
Cooper's Hawk	CO-FS
Northern Goshawk	O-X
Bald Eagle	O-M
Red-shouldered Hawk	CO-NY
Broad-winged Hawk	P-T
Red-tailed Hawk	P-A

Owls

(Owls)

Eastern Screech-Owl	CO-FY
Great Horned Owl	P-T
Snowy Owl	O-M
Barred Owl	P-T
Great Gray Owl	O-M
Long-eared Owl	O-M
Northern Saw-whet Owl	O-M

Kingfishers

(Kingfishers)

Belted Kingfisher PO-H

Woodpeckers

(Woodpeckers)

Red-headed Woodpecker	O-M
Red-bellied Woodpecker	CO-FY
Yellow-bellied Sapsucker	CO-FY
Downy Woodpecker	CO-FY
Hairy Woodpecker	CO-NY
Northern Flicker	CO-FY
Pileated Woodpecker	CO-NY

FALCONIFORMES

Falconidae

Falco sparverius Linnaeus
Falco columbarius Linnaeus
Falco peregrinus Tunstall

PASSERIFORMES

Tyrannidae

Myiarchus crinitus (Linnaeus)
Tyrannus tyrannus (Linnaeus)
Contopus cooperi (Nuttall)
Contopus virens (Linnaeus)
Empidonax flaviventris (W.M. Baird & S.F. Baird)
Empidonax alnorum Brewster
Empidonax minimus (W.M. Baird & S.F. Baird)
Sayornis phoebe (Latham)

Laniidae

Lanius borealis Vieillot

Vireonidae

Vireo flavifrons Vieillot
Vireo solitarius (A. Wilson)
Vireo philadelphicus (Cassin)
Vireo gilvus (Vieillot)
Vireo olivaceus (Linnaeus)

Corvidae

Cyanocitta cristata (Linnaeus)
Corvus brachyrhynchos C.L. Brehm
Corvus corax Linnaeus

Alaudidae

Eremophila alpestris (Linnaeus)

Hirundinidae

Riparia riparia (Linnaeus)
Tachycineta bicolor (Vieillot)
Stelgidopteryx serripennis (Audubon)
Progne subis (Linnaeus)
Hirundo rustica Linnaeus
Petrochelidon pyrrhonota (Vieillot)

Paridae

Poecile atricapillus (Linnaeus)

Falcons

(Falcons)

American Kestrel	CO-AE
Merlin	O-M
Peregrine Falcon	O-M

Songbirds

(Tyrant Flycatchers)

Great Crested Flycatcher	CO-FY
Eastern Kingbird	CO-AE
Olive-sided Flycatcher	O-M
Eastern Wood-Pewee	CO-FY
Yellow-bellied Flycatcher	O-M
Alder Flycatcher	CO-FY
Least Flycatcher	CO-FY
Eastern Phoebe	CO-FY

(Shrikes)

Northern Shrike	O-M
-----------------	-----

(Vireos)

Yellow-throated Vireo	O-M
Blue-headed Vireo	P-T
Philadelphia Vireo	O-M
Warbling Vireo	CO-FY
Red-eyed Vireo	CO-FY

(Crows & Jays)

Blue Jay	P-P
American Crow	CO-FY
Common Raven	O-M

(Larks)

Horned Lark	PO-M
-------------	------

(Swallows & Martins)

Bank Swallow	O-X
Tree Swallow	CO-AE
Northern Rough-winged Swallow	O-X
Purple Martin	O-X
Barn Swallow	CO-NY
Cliff Swallow	O-X

(Tits & Chickadees)

Black-capped Chickadee	CO-FY
------------------------	-------

Sittidae	(Nuthatches)	
<i>Sitta canadensis</i> Linnaeus	Red-breasted Nuthatch	CO-FY
<i>Sitta carolinensis</i> Latham	White-breasted Nuthatch	CO-FY
Certhiidae	(Creepers)	
<i>Certhia americana</i> Bonaparte	Brown Creeper	P-T
Troglodytidae	(Wrens)	
<i>Troglodytes aedon</i> Vieillot	House Wren	CO-FY
<i>Troglodytes hiemalis</i> Vieillot	Winter Wren	P-T
<i>Cistothorus platensis</i> (Latham)	Sedge Wren	O-M
Polioptilidae	Blue-grey Gnatcatcher	O-M
<i>Polioptila caerulea</i> (Linnaeus)		
Regulidae	(Kinglets)	
<i>Regulus satrapa</i> Lichtenstein	Golden-crowned Kinglet	P-T
<i>Regulus calendula</i> (Linnaeus)	Ruby-crowned Kinglet	O-M
Turdidae	(Thrushes)	
<i>Sialia sialis</i> (Linnaeus)	Eastern Bluebird	CO-AE
<i>Catharus fuscescens</i> (Stephens)	Veery	P-T
<i>Catharus minimus</i>	Grey-cheeked Thrush	O-M
<i>Catharus ustulatus</i>	Swainson's Thrush	O-M
<i>Catharus guttatus</i> (Pallas)	Hermit Thrush	CO-FY
<i>Hylocichla mustelina</i> (Gmelin)	Wood Thrush	CO-FY
<i>Turdus migratorius</i> Linnaeus	American Robin	CO-NE
Mimidae	(Mockingbirds & Thrashers)	
<i>Dumetella carolinensis</i> (Linnaeus)	Gray Catbird	CO-FY
<i>Toxostoma rufum</i> (Linnaeus)	Brown Thrasher	PO-M
<i>Mimus polyglottos</i> (Linnaeus)	Northern Mockingbird	O-M
Sturnidae	(Starlings)	
<i>Sturnus vulgaris</i> Linnaeus	European Starling	CO-NY
Bombycillidae	(Waxwings)	
<i>Bombycilla garrulus</i> (Linnaeus)	Bohemian Waxwing	O-M
<i>Bombycilla cedrorum</i> Vieillot	Cedar Waxwing	CO-FY
Passeridae	(Old World Sparrows)	
<i>Passer domesticus</i> (Linnaeus)	House Sparrow	O-X
Motacillidae	(Wagtails & Pipits)	
<i>Anthus rubescens</i> (Tunstall)	American Pipit	O-M

Fringillidae

- Coccothraustes vespertinus* (W. Cooper)
Pinicola enucleator (Linnaeus)
Haemorhous mexicanus (Statius Müller)
Haemorhous purpureus (Gmelin)
Acanthis flammea (Linnaeus)
Loxia curvirostra Linnaeus
Loxia leucoptera Gmelin
Spinus pinus (A. Wilson)
Spinus tristis (Linnaeus)

(Old World Finches)

- | | |
|------------------------|-------|
| Evening Grosbeak | O-M |
| Pine Grosbeak | O-M |
| House Finch | PO-M |
| Purple Finch | P-P |
| Common Redpoll | O-M |
| Red Crossbill | O-M |
| White-winged Crossbill | O-X |
| Pine Siskin | O-M |
| American Goldfinch | CO-NE |

Calhariidae

- Plectrophenax nivalis* (Linnaeus)

(Longspurs & Snow Buntings)

- | | |
|--------------|-----|
| Snow Bunting | O-M |
|--------------|-----|

Passerellidae

- Ammodramus savannarum* (Gmelin)
Spizella passerina (Bechstein)
Spizella pallida (Swainson)
Spizella pusilla (A. Wilson)
Passerella iliaca (Merrem)
Spizelloides arborea (A. Wilson)
Junco hyemalis (Linnaeus)
Zonotrichia leucophrys (J.R. Forster)
Zonotrichia albicollis (Gmelin)
Pooecetes gramineus (Gmelin)
Passerculus sandwichensis (Gmelin)
Melospiza melodia (A. Wilson)
Melospiza lincolni (Audubon)
Melospiza georgiana (Latham)
Pipilo erythrrophthalmus (Linnaeus)

(New World Sparrows)

- | | |
|------------------------|-------|
| Grasshopper Sparrow | PO-M |
| Chipping Sparrow | CO-FY |
| Clay-colored Sparrow | PO-H |
| Field Sparrow | CO-NE |
| Fox Sparrow | O-M |
| American Tree Sparrow | O-M |
| Dark-eyed Junco | O-M |
| White-crowned Sparrow | O-M |
| White-throated Sparrow | P-T |
| Vesper Sparrow | PO-H |
| Savannah Sparrow | CO-FY |
| Song Sparrow | CO-FY |
| Lincoln's Sparrow | O-M |
| Swamp Sparrow | CO-FY |
| Eastern Towhee | CO-FY |

Icteriidae

- Icteria virens* (Linnaeus)

(Yellow-breasted Chats)

- | | |
|----------------------|-----|
| Yellow-breasted Chat | O-M |
|----------------------|-----|

Icteridae

- Dolichonyx oryzivorus* (Linnaeus)
Sturnella magna (Linnaeus)
Icterus spurius (Linnaeus)
Icterus galbula (Linnaeus)
Agelaius phoeniceus (Linnaeus)
Molothrus ater (Boddaert)
Euphagus carolinus (Müller)
Quiscalus quiscula (Linnaeus)

(New World Blackbirds)

- | | |
|----------------------|-------|
| Bobolink | CO-FS |
| Eastern Meadowlark | CO-NE |
| Orchard Oriole | PO-M |
| Baltimore Oriole | CO-FY |
| Red-winged Blackbird | CO-FY |
| Brown-headed Cowbird | CO-FY |
| Rusty Blackbird | O-M |
| Common Grackle | CO-FS |

Parulidae

Seiurus aurocapilla (Linnaeus)
Parkesia noveboracensis (Gmelin)
Vermivora chrysoptera (Linnaeus)
Vermivora cyanoptera (Olson & Reveal)
Vermivora chrysoptera (Linnaeus)
 x*Vermivora cyanoptera* (Olson & Reveal)
Mniotilla varia (Linnaeus)
Leiothlypis peregrina (A. Wilson)
Leiothlypis celata (Say)
Leiothlypis ruficapilla (A. Wilson)
Oporornis agilis (A. Wilson)
Geothlypis philadelphia (A. Wilson)
Geothlypis trichas (Linnaeus)
Setophaga citrina (Boddaert)
Setophaga ruticilla (Linnaeus)
Setophaga tigrina (Gmelin)
Setophaga americana (Linnaeus)
Setophaga magnolia (A. Wilson)
Setophaga castanea (A. Wilson)
Setophaga fusca (Statius Müller)
Setophaga petechia (Linnaeus)
Setophaga pensylvanica (Linnaeus)
Setophaga striata (J.R. Forster)
Setophaga caerulescens (Gmelin)
Setophaga palmarum (Gmelin)
Setophaga pinus (Linnaeus)
Setophaga coronata (Linnaeus)
Setophaga virens (Gmelin)
Cardellina canadensis (Linnaeus)
Cardellina pusilla (A. Wilson)

(New World Warblers)

Ovenbird	CO-FY
Northern Waterthrush	PO-M
Golden-winged Warbler	CO-FS
Blue-winged Warbler	CO-FS
Brewster's Warbler	CO-FS
Black-and-white Warbler	PO-M
Tennessee Warbler	O-M
Orange-crowned Warbler	O-M
Nashville Warbler	CO-FY
Connecticut Warbler	O-M
Mourning Warbler	CO-FY
Common Yellowthroat	CO-FS
Hooded Warbler	PO-M
American Redstart	O-M
Cape May Warbler	O-M
Northern Parula	O-M
Magnolia Warbler	P-T
Bay-breasted Warbler	O-M
Blackburnian Warbler	P-T
Yellow Warbler	CO-FY
Chestnut-sided Warbler	PO-M
Blackpoll Warbler	O-M
Black-throated Blue Warbler	O-M
Palm Warbler	O-M
Pine Warbler	P-T
Yellow-rumped Warbler	P-T
Black-throated Green Warbler	P-T
Canada Warbler	PO-M
Wilson's Warbler	O-M

Cardinalidae

Piranga olivacea (Gmelin)
Cardinalis cardinalis (Linnaeus)
Pheucticus ludovicianus (Linnaeus)
Passerina cyanea (Linnaeus)

(Cardinals & Allies)

Scarlet Tanager	CO-FY
Northern Cardinal	CO-FY
Rose-breasted Grosbeak	CO-FY
Indigo Bunting	CO-FY

MAMMALS OF THE KOFFLER SCIENTIFIC RESERVE AT JOKERS HILL

King Township, Regional Municipality of York

Tubba Babar¹ and Peter M. Kotanen^{1*}

¹Department of Ecology & Evolutionary Biology

University of Toronto Mississauga

3359 Mississauga Road, Mississauga, ON, Canada L5L 1C6

*Correspondence author. e-mail: peter.kotanen@utoronto.ca

The first edition of this list was compiled by C. Sean Blaney and was published as an appendix to his M.Sc. thesis (Blaney C.S. 1999. Seed bank dynamics of native and exotic plants in open uplands of southern Ontario. University of Toronto. <https://tspace.library.utoronto.ca/handle/1807/14382/>). It subsequently was formatted for the web by P.M. Kotanen and made available on the Koffler Scientific Reserve website (<http://ksr.utoronto.ca/>), where it was revised periodically to reflect additions and taxonomic changes. This version represents a major revision reflecting recent phylogenetic and nomenclatural changes and adding additional species.

This property was donated to the University of Toronto in 1995. This list is based on observations at this site by C.S. Blaney, P.M. Kotanen, and others beginning in 1997, supplemented with observations by property manager W. Fox between 1971 and 1998. Expert assistance and was provided by M. Engstrom (Royal Ontario Museum), while M. Havelka (University of Toronto) added several new species in 2004 using live traps and a bat detector. Phylogenetic classification and scientific and English nomenclature follow the American Society of Mammalogists (ASM) Mammals Diversity Database (<https://mammaldiversity.org/>), with minor corrections.

This list includes all wild mammals observed within the Koffler Scientific Reserve during the observation period. Of the 31 species listed, 28 are considered locally native, while three (House Mouse, Norway Rat, and European Hare) are introduced. Some listed species may have been temporarily established (European Hare) or transient (Northern River Otter). Other difficult-to-observe species (especially bats) likely occur on-site, while species currently absent but occurring regionally (Black Bear) likely historically were present. Information on any additional species (preferably with photographs) would be welcomed by the authors.

DIDELPHIMORPHIA	Opossums
Didelphidae <i>Didelphis virginiana</i> Kerr	(American Opossums) Virginia Opossum
RODENTIA	Rodents
Sciuridae <i>Glaucomys</i> sp. (Linneaus) <i>Marmota monax</i> (Linnaeus) <i>Sciurus carolinensis</i> Gmelin <i>Tamiasciurus hudsonicus</i> (Erxleben) <i>Tamias striatus</i> (Linnaeus)	(Squirrels) Flying Squirrel sp. Woodchuck Gray Squirrel Red Squirrel Eastern Chipmunk
Castoridae <i>Castor canadensis</i> Kuhl	(Beavers) American Beaver
Dipodidae <i>Napaeozapus insignis</i> (Miller) <i>Zapus hudsonius</i> (Zimmermann)	(Jumping Mice) Woodland Jumping Mouse Meadow Jumping Mouse
Cricetidae <i>Microtus pennsylvanicus</i> (Ord) <i>Ondatra zibethicus</i> (Linnaeus) <i>Peromyscus leucopus</i> (Rafinesque)	(New World Mice & Rats) Meadow Vole Muskrat White-footed Mouse
Muridae <i>Mus musculus</i> Linnaeus <i>Rattus norvegicus</i> (Berkenhout)	(Old World Mice & Rats) House Mouse Norway Rat
Erethizontidae <i>Erethizon dorsatum</i> (Linnaeus)	(New World Porcupines) Porcupine
LAGOMORPHA	Rabbits & Hares
Leporidae <i>Lepus europaeus</i> Pallas <i>Sylvilagus floridanus</i> (J.A. Allen)	(Hares) European Hare Eastern Cottontail
SORICOMORPHA	Shrews
Soricidae <i>Blarina brevicauda</i> (Say) <i>Sorex cinereus</i> Kerr <i>Sorex hoyi</i> Baird	(Shrews) Short-tailed Shrew Masked Shrew Pygmy Shrew
Talpidae <i>Condylura cristata</i> (Linnaeus)	(Moles) Star-nosed Mole

CHIROPTERA**Vespertilionidae**

Eptesicus fuscus (Beauvois)
Myotis lucifugus (Le Conte)

Bats**(Vespertilionid Bats)**

Big Brown Bat
Little Brown Bat

CARNIVORA**Canidae**

Canis latrans (Say)
Vulpes vulpes (Linnaeus)

Carnivores**(Dogs)**

Coyote
Red Fox

Mustelidae

Lontra canadensis (Schreber)
Mustela erminea (Linnaeus)
Neovison vison (Schreber)

(Weasels & Otters)

Northern River Otter
Ermine
Mink

Mephitidae

Mephitis mephitis (Schreber)

(Skunks)

Striped Skunk

Procyonidae

Procyon lotor (Linnaeus)

(Raccoons)

Raccoon

ARTIODACTYLA**Cervidae**

Odocoileus virginianus (Zimmermann)

Deer**(Deer)**

White-tailed Deer
