



The Blue Bill

Quarterly Journal of the Kingston Field Naturalists

ISSN 0382-5655

Volume 63, No. 3

September 2016

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Send submissions to the Editor by the 15th of the month prior to the month of publication (i.e. by the 15th of February/May/August/November) to the address above, or to the editor via e-mail to: jamesrdbarber@gmail.com. Please include contact phone number.

Submissions should be in MS Word format or in "plain text" format (PC or Macintosh) or unformatted in the body of an e-mail.

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President's Page

Alexandra Simmons

The Ontario Field Ornithologists' 35th annual convention was held in Kingston from September 23 to 25. It is the 2nd time for the event in Kingston; the last was 14 years ago.

The registration of 256 people was the highest ever. One big reason is the excellent program of 31 (!) field trips organised by Mike Burrell. **I would like to send a big THANK YOU to Mike and to the many KFN members who were trip leaders.** The number of species observed was 181, the 2nd highest, just behind the 184 seen at last year's convention in Point Pelee.

My comments to welcome the attendees form the remainder of this President's Page.

Birding trips need birding hotspots, and Kingston has a lot of them, because it is at the intersection of several habitat types. It is at the southern edge of the Canadian Shield with its forests that hold breeding warblers, tanagers, flycatchers and vireos. The Frontenac Arch connecting the Algonquin Highlands to the Adirondack Mountains is the priority for Nature Conservancy Canada in Eastern Ontario. KFN's Helen Quilliam Sanctuary north of Kingston preserves nearly 500 acres of Shield, and the KFN has helped acquire and currently monitors several properties in this biome for NCC. KFN members were instrumental in the formation and current operation of the local KFL&A Land Trust which preserves several more Shield parcels.

Kingston itself lies on the St. Lawrence Lowlands, and the area is home to 5 Globally Significant Important Bird Areas. Napanee Limestone Plain IBA was established in 1999 after data from the KFN demonstrated the importance of its alvars and fields to grassland birds. Some of the land is protected by NCC in its Napanee Plain Alvar Nature Reserve. KFN partners with NCC and the Lennox and Addington Stewardship Council to manage the land to enhance its quality for nesting loggerhead shrikes.

In addition to breeding birds, the Kingston area has migration and wintering hotspots due to its location on the North Shore and Eastern end of Lake Ontario. The KFN conducted daily censuses at Prince Edward Point in April and May of 1971 and 1972, and founded the first Prince Edward Pt Bird Observatory, banding 65000 birds by 1983 to show that Prince Edward Pt is to Lake Ontario what Pt Pelee and Long Pt are to Lake Erie, leading to the establishment of the Prince Edward Pt National Wildlife Area and the Prince Edward County South Shore IBA. The current operators of the Observatory, revived in 1995 by Brian Joyce and Eric Machell, generate important data which continues to show the critical nature of the County's south shore to migrants.

Kingston's offshore islands are also important to birds. Amherst and Wolfe Island are globally significant IBAs, and the KFN is active on both.

The KFN's Martin Edwards Reserve at southeastern tip of Amherst Island is managed as grassland to provide nesting habitat for Wilson's Phalarope and Bobolinks and a wetland which hosts migrating shorebirds. For the next 2 years, the KFN will monitor the new Sand Beach Wetland Conservation area on Amherst's Southwest Shore. This spring the KFN obtained presenter status at the Environmental Review Tribunal for the proposed Amherst Island Industrial Wind farm, in order to highlight its potential effects on the local bobolink population. We collect data on nesting, migrating and wintering birds on Wolfe and Amherst Island by holding bioblitzes, Christmas Bird Counts and surveys there.

The status of each species in our area is described in the KFN publication

Birds of the Kingston Region by Ron Weir, who prepared an addendum listing the species new to the Kingston region since 2008 in time for the OFO convention. Current sightings are added to eBird, with Frontenac County being among the leaders in number of checklists submitted. Thanks to Ken Edwards and the KFN Rare Bird Committee, the Kingston Area Bird Checklist was also updated and provided to the attendees.

These are examples of the work of the KFN to identify, study and preserve local habitat for the birds, to ensure that they will still be here in all seasons when OFO members return to Kingston for another convention or personal birding adventure.

**KINGSTON FIELD NATURALISTS
INCOME STATEMENT
FOR THE YEAR ENDING MARCH 31, 2016**

INCOME

Book Auction	1,134.75
Donations - Habitat Preservation	5,027.40
Donations - General	3,955.81
Grazing Income - Amherst Island	2,500.00
Grant - Amherst Island Fencing	5,000.00
GST Rebate	2,798.34
Interest Income	2,487.50
May Dinner Meeting	2,310.00
Memberships Junior	920.00
Memberships Other	9,648.78
Other Income	60.00
Sales - Other Merchandise	372.00
Sales - 2008 Books (Net)	33.00

TOTAL INCOME **36,245.38**

EXPENSES

Administration	317.42
Awards	531.69
Bank Charges	172.46
Bioblitz Net Expenses	330.32
Blue Bill	1,103.47
Conservation Committee	225.06
Donations Out	1,000.00
Insurance	1,946.16
Inventory Purchases	257.27
Junior Naturalist Admin	1,043.91
May Dinner Meeting Expenses	2,652.93
Membership Expenses	1,173.53
Ontario Nature Regional Meetings	172.54
Property Expenses	14,585.45
Property Tax	1,051.51
Publicity	869.60
Rent Rooms Junior Naturalists	813.60
Rent Paid (Monthly Meetings)	395.50
Speakers Expenses	1,496.70
Subscriptions and Memberships	248.00
Taxidermy Expenses	1,525.12
Web Site	230.52

TOTAL EXPENSES **32,153.66**

SURPLUS ON 2015/2016 OPERATIONS

4,091.72


Jane Revell

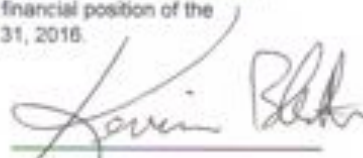

Kevin Bleeks

**KINGSTON FIELD NATURALISTS
BALANCE SHEET
FOR THE YEAR ENDING MARCH 31, 2016**

ASSETS		
Bank Account	18,870.70	
Bond - Bank of Montreal (2016)	7,501.13	
GIC - National Trust (2016)	10,000.00	
GIC - National Bank (2017)	14,064.00	
GIC - Can West Bank (2017)	21,435.00	
GIC - Home Trust (2018)	27,506.00	
GIC - Manulife (2019)	33,770.00	
Wood Gundy Account	2,142.30	
Equipment	12,582.31	
2008 Book Inventory	4,256.00	
Property (at cost)	<u>120,800.00</u>	
TOTAL ASSETS		272,927.44
LIABILITIES & EQUITY		
Habitat Preservation Fund	12,052.30	
Faith Avis Fund	1,100.83	
Life Membership Reserve	7,600.00	
Marion Webb Fund	28,000.00	
Nan Yeomans Young Naturalists Fund	1,918.90	
Property Management Reserve	20,000.00	
Taxidermy Fund	0.00	
ASUS Fund	634.71	
General Equity	<u>201,620.70</u>	
TOTAL LIABILITIES & EQUITY		272,927.44 **
** NOTE		
Total Liabilities & Equity - March 31, 2015	268,835.72	
Surplus on 2015/2016 Operations	<u>4,091.72</u>	
Total Liabilities & Equity - March 31, 2016	<u>272,927.44</u>	

We have reviewed the bank statements together with the supporting documents.
We find the above statements accurately reflect the financial position of the
Kingston Field Naturalists for the year ended March 31, 2016.


Jane Revell


Kevin Bleeks

Kingston Region Birds for the Summer Season: June 1-July 31, 2016

Mark Read

The KFN reporting area is centred on MacDonald Park, Kingston and extends for a radial distance of 50km. An interactive map showing the KFN circle is available on the website. If errors are noted or significant observations omitted in the following report, please do contact me and I will update accordingly. We also encourage you to submit *all* sightings, so that a better understanding of our region's birdlife can be achieved. Members already using eBird can very easily share their sightings with the username 'Kingston FN'. Alternatively, please email, phone or post records directly to me (contact details are found inside the front cover).

In total, **188 species of bird** were recorded in our region during the reporting period; two down on last year's summer total of 190. The vast majority of sightings were obtained from eBird – 41.0% of which were shared with the KFN account (compared to the 55.9% shared in the spring). In total, 193 observers logged 1052 checklists, equating to just over 16,000 sightings. Just a handful of those checklists were received via phone/email/word of mouth, indicating the continuing popularity of eBird (www.ebird.ca). Nearly 104,000 'individual birds' were recorded though many of these were, of course, birds counted/seen again on subsequent days. A huge thank you goes out to every observer, without whom our understanding of bird distribution would be far more limited. Unfortunately, only observers with sightings in the current report are noted below.

The summer of 2016 was noted for being very dry and hot, rolling in on the

back of an extended spring that started very early. Worm-eating Warbler was perhaps the rarest bird of the season though a number of other good sightings were received including Wilson's Phalarope, Northern Goshawk, Red-headed Woodpecker, Loggerhead Shrike, Sedge Wren, Henslow's Sparrow, and Red Crossbill. Here are the highlights of summer 2016:

Trumpeter Swan: Breeding was confirmed at Perch River WMA, NY, (several observers) and in the Rideau Canal just north of the 401 (MaF).

Blue-winged Teal: Compared to the 35 records of 2015, the 9 received this year was poor. They were seen throughout the reporting period with a high count of 10 at Perch River WMA, NY on 31st July (TML).

Northern Pintail: A pair was seen at Perch River WMA, NY on 24th July (LeE).

Redhead: An adult male was seen at Invista, Kingston on 14th June (WTD).

Common Goldeneye: An adult male was located at the tip of Martin Edwards Reserve, Amherst Island on 8th July (NAK, TMW).

Ruddy Duck: One late bird was seen at Loyalist Golf Club, 7th June (EDB, BGB).

Northern Bobwhite: A singing male (presumed escape) was seen at Ashland Flats WMA, NY on 20th July.

Ring-necked Pheasant: Just 3 records; including 1 at Perch river WMA, 15th June (RiB); 1 Wolfe Island, 15th June (MDR); and 1, Amherst Island 16th June (VPM).

Least Bittern: Another good season for this species with records coming from

Perch River WMA, NY, Jeff Wilson's Bay, NY, Moscow Marsh, Odessa, Sydenham and Wolfe Island (KFN). At least 2 territories were noted at Big Sandy Bay, Wolfe Island (MDR).

Great Egret: This increasing species was noted at many locations across the area. A high count of 8 was recorded at the George Merry Wetland, Kingston on 15th June (EDB, BGB).

Black-crowned Night-Heron: Widespread observations but the majority of records came from Perch River WMA, NY, where a high count of 31 was noted on 17th July (LeE).

Northern Goshawk: Just one report, of a bird on breeding territory in Frontenac Provincial Park, on 8th June (KJH).

American Coot: Just a single record of a bird seen at Ashland Flats WMA, NY on 16th July (StK, BrS, ChW).

Sandhill Crane: Five summer records were received: 1, Hounsfield (Sackets Harbour), NY, 6th June (AdB); 2, Florida Road, 23rd July (CJG); 2, near Crosby, 23rd July (JVJ, PeK); 2, Ashland Flats WMA, NY, 30th July (WiH); 2, Lyme, NY, 31st July (RiB).

Pectoral Sandpiper: A lone bird was seen at Perch River WMA, NY on 3rd July (GrR).

Short-billed Dowitcher: Records were received from Martin Edwards Reserve, Amherst Island where a single bird was seen on 8th July (KJH, NAK, TDW), and Wilton Creek, Morven on 15th July (VPM).

Wilson's Phalarope: Records came only from the known breeding location of Martin Edwards Reserve, Amherst Island, where a high count of 7 was noted on 16th July (MaB).

Bonaparte's Gull: Just one record of a single bird at Reed's Bay, Wolfe Island on 19th July (MDR).

Black Tern: Thirty seven records were received from a number of locations but the high count again came from Perch River WMA, NY where 50 were seen on 27th June (BoW).

Yellow-billed & Black-billed Cuckoo: Both species were less common than last year with just 13 records of Yellow-billed and 26 records of Black-billed (KFN).

Northern Saw-whet Owl: There was just one record of a bird near Godfrey on 19th July (DaP).

Red-headed Woodpecker: A better year for this species with 6 records received including; 2 at Frontenac Provincial Park on 23rd June (DaD); 1 near Godfrey on 10th July (MaR); 1 on a feeder in Kingston, 10th July (DoB); 1 at Gananoque Golf Course, 18th July (FrT); and 2 at another location just west of Gananoque on 28th and 30th July (JET).

Peregrine Falcon: Thirteen records this summer, with the majority from Kingston where 2 birds are known to have attempted to breed (KFN).

Yellow-bellied Flycatcher: A single record was received from Murray Isle, NY on 4th June (HaM).

Loggerhead Shrike: All sightings came from the known breeding location of Napanee Plain IBA (KFN), where at least 3 pairs are known to have bred (TMW).

Blue-headed Vireo: There were just 3 records this summer; 1 from Mudlunta Island, Gananoque on 13th June (JiB); 1 from Blue Bill Bay, near Three Mile Bay, NY on 2nd July (CoN); and another single at Perch River WMA, NY on 3rd July (CoN).

Horned Lark: Just two summer records this year with the first of a single bird at Wilton Creek, Morven on 4th June (MJP), and the second, also of a single at

Button Bay, Wolfe Island on 19th July (MDR).

Tufted Titmouse: Only one record of this species was received of a bird at Wellesley Island SP, NY on 30th June (AIB).

Winter Wren: Just a single record of a bird seen on Murray Isle, NY on 4th June (HaM).

Sedge Wren: Several records were received of up to 2 birds at a location near Verona (TAN *et al.*).

Northern Mockingbird: Two separate records: 1, Perch River WMA, NY, 3rd July (GrR); and 1, Napanee Plains IBA, 6th July (TMW) and 8th July (RoS).

Worm-eating Warbler: Found on 4th July (TMW) in the Owl Woods, Amherst Island, this shy bird was seen again on 5th (BLB) and 7th (MWPR).

Louisiana Waterthrush: Just 1 record of a single bird at Chaumont Barrens Preserve, NY on 19th June (KiK).

Tennessee Warbler: One bird was seen during the summer period, on 19th July, on Amherst Island (JPR, MWPR).

Cerulean Warbler: Birds were noted in several locations including Canoe Lake Road, Queen's University Biological Station, Lansdowne, and Charleston Lake Provincial Park (KFN).

Northern Parula: Two birds were noted during the period, the first on Amherst Island on 8th July (NAK, TMW) and the second at Perch River WMA, NY on 31st July (StK).

Prairie Warbler: Lots of records from several locations across the border in Jefferson County, NY but only one this side of a single in Frontenac Provincial Park on 2nd July (EDB, BGB, VPM).

Canada Warbler: Just one record on Leeds Waterfront Trail on 11th July (PJB).

Wilson's Warbler: A female was photographed at Prince Edward Point on 4th June (JRB).

Henslow's Sparrow: Just 2 records this summer, both individuals in the vicinity of the known breeding location of Perch River WMA, NY (AIB, PaA).

Clay-coloured Sparrow: Noted at 5 different locations, including Odessa (BER); Napanee Limestone Plain IBA (KJH, MiM, PRM); Reed's Bay, Wolfe Island (MDR); 7th Line, Wolfe Island (MDR); and Amherst Island (KJH, NAK, TMW).

Dark-eyed Junco: A late bird was seen at Thousand Island Park, NY on 29th June (JuP).

Vesper Sparrow: Fewer records than last year (6 reports compared with 13) from 5 locations (KFN).

Orchard Oriole: There were several reports this summer, mainly from Lemoine Point CA, Kingston, and Amherst Island (many observers).

Red Crossbill: Three birds were seen at a private location near Verona on 30th July (TAN).

Pine Siskin: Just one record, from downtown Kingston, on 9th June where 1 was feeding on Spruce cones (CJG).

Other species observed during the reporting period: Canada Goose, Mute Swan, Wood Duck, Gadwall, American Wigeon, American Black Duck, Mallard, Northern Shoveler, Green-winged Teal, Ring-necked Duck, Hooded Merganser, Common Merganser, Red-breasted Merganser, Ruffed Grouse, Wild Turkey, Common Loon, Pied-billed Grebe, Double-crested Cormorant, American Bittern, Great Blue Heron, Green Heron, Turkey Vulture, Osprey, Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk, Bald Eagle, Red-shouldered Hawk, Broad-winged Hawk, Red-tailed Hawk,

Virginia Rail, Sora, Common Gallinule, Semipalmated Plover, Killdeer, Upland Sandpiper, Least Sandpiper, Semipalmated Sandpiper, Wilson's Snipe, American Woodcock, Spotted Sandpiper, Solitary Sandpiper, Greater Yellowlegs, Lesser Yellowlegs, Ring-billed Gull, Herring Gull, Great Black-backed Gull, Caspian Tern, Common Tern, Rock Pigeon, Mourning Dove, Eastern Screech-Owl, Great Horned Owl, Barred Owl, Common Nighthawk, Eastern Whip-poor-will, Chimney Swift, Ruby-throated Hummingbird, Belted Kingfisher, Red-bellied Woodpecker, Yellow-bellied Sapsucker, Downy Woodpecker, Hairy Woodpecker, Northern Flicker, Pileated Woodpecker, American Kestrel, Merlin, Eastern Wood-Pewee, Alder Flycatcher, Willow Flycatcher, Least Flycatcher, Eastern Phoebe, Great Crested Flycatcher, Eastern Kingbird, Yellow-throated Vireo, Warbling Vireo, Red-eyed Vireo, Blue Jay, American Crow, Common Raven, Northern Rough-winged Swallow, Purple Martin, Tree Swallow, Bank Swallow, Barn Swallow, Cliff Swallow, Black-capped Chickadee, Red-breasted Nuthatch, White-breasted Nuthatch, Brown Creeper, House Wren, Marsh Wren, Blue-grey Gnatcatcher, Golden-crowned Kinglet, Eastern Bluebird, Veery, Hermit Thrush, Wood Thrush, American Robin, Grey Catbird, Brown Thrasher, European Starling, Cedar Waxwing, Ovenbird, Northern Waterthrush, Blue-winged Warbler, Golden-winged Warbler, Black-and-white Warbler, Nashville Warbler, Common Yellowthroat, American Redstart, Magnolia Warbler, Blackburnian Warbler, Yellow Warbler, Chestnut-sided Warbler, Black-throated Blue Warbler, Pine Warbler, Yellow-

rumped Warbler, Black-throated Green Warbler, Grasshopper Sparrow, Chipping Sparrow, Field Sparrow, White-throated Sparrow, Savannah Sparrow, Song Sparrow, Swamp Sparrow, Eastern Towhee, Scarlet Tanager, Northern Cardinal, Rose-breasted Grosbeak, Indigo Bunting, Bobolink, Red-winged Blackbird, Eastern Meadowlark, Common Grackle, Brown-headed Cowbird, Baltimore Oriole, House Finch, Purple Finch, American Goldfinch, House Sparrow.

Observers:

Patricia Aitken (PaA), Bonnie L. Bailey (BLB), James R. Barber (JRB), Jim Barry (JiB), Erwin D. Batalla (EDB), B. Gaye Beckwith (BGB), Alan Belford (AIB), Doug Blancher (DoB), Peter J. Blancher (PJB), Adam Bleau (AdB), Richard Brouse (RiB), Martha Burchat (MaB), William T. Depew (WTD), Dan Derbyshire (DaD), Lee Ellsworth (LeE), Mark Fleming (MaF), Chris J. Grooms (CJG), Willis Haller (WiH), Kurt J. Hennige (KJH), Janet Venn Jackson (JVJ), N. Anthony Kaduck (NAK), Kimber Kaushik (KiK), Steve Kelling (StK), Peter Kyne (PeK), Tristan & Mark Lowery (TML), V. Paul Mackenzie (VPM), Michelle Martin (MiM), Paul R. Martin (PRM), Haynes Miller (HaM), Kingston Field Naturalists (KFN), Cody Nichols (CoN), Todd A. Norris (TAN), Justine Papiernik (JuP), Mark J. Patry (MJP), Dale Plumley (DaP), Mary Rae (MaR), Mark D. Read (MDR), Griffin Richards (GrR), Bruce E. Ripley (BER), Jon Ruddy (JPR), Michael W. P. Runtz (MWPR), Robert Scranton (RoS), Brian Sullivan (BrS), Frances Tackaberry (FrT), James E. Thompson (JET), Bob Washburn (BoW), Tom M. Wheatley (TMW), Chris Wood (ChW).

The Great Canadian BioBlitz of 2016

Anne Robertson

Our 18th BioBlitz was held June 17-18, 2016 at Menzel Centennial Provincial Park in cooperation with Parks Canada and the Nature Conservancy of Canada (NCC). The park was acquired by NCC with help from OHT (Ontario Heritage Trust) and Environment Canada with contributions in memory of Oivi Menzel.



The Site: Gaye Beckwith

This 800 hectare nature reserve class provincial park has a wide variety of habitats and protects one of the largest peat lands in southern Ontario. The diversity of plant and animal life along Oivi's trail makes an interesting study and was the focus for many at the BioBlitz. Habitats include forest, wetland (including wooded wetland and a special shrub fen) central upland, flowering fields, a sand and gravel area and Mud lake.

Our aim was to list as many plants and animals as possible in 24 hours- 3:00pm Friday to 3:00pm Saturday. This snapshot of the biodiversity provides a baseline for observing future changes caused by global warming, invasive species and loss

of endangered species as well as changes through natural succession. We had hot sunny weather for a congenial crowd of amateur and professional naturalists. Our activities included educational guided walks to learn about a variety of species and listings by participants of everything from mammals, birds, reptiles, amphibians and fish to invertebrate groups including damsel and dragonflies, butterflies, moths and many other insect groups as can be seen in the tally following.



Bioblitzers: Gaye Beckwith

Plants of all kinds including trees, shrubs and flowering plants in habitats varying from dry to very wet provided a very large portion of the species tally. We also recorded algae, mosses, lichens and a few fungi.

The evening activities moved in to a night hike when several bats were recorded and we enjoyed some star and planet viewing in this good dark sky location. Some participants camped overnight nearby. After a late night and an early morning we enjoyed a noontime BBQ on Saturday at the base site where the

base tent and three shelters were situated.

The event brought together many participants both amateur, expert and professional in all kinds of species, to spot and identify all they could in during the Blitz. 62 participants, about half of whom were KFN members, also included those from Ottawa, Toronto and Hamilton. Some neighbours of the site joined us too. Some specialists explored off trail to add to the species diversity and some participants used canoes to explore the lake. Mud Lake pH was measured at 6.0 and the acidity was also indicated by the presence of an acid-loving alga, Brittlewort. The fen pH was 6.4. For the first time this year a couple of web cams were set up to record wildlife. Nothing was seen but the technique for doing this is worth knowing about.

Highlights of this event included sightings of some special species. These included the Pitcher plants at their peak of flowering beside the boardwalk together with several plant species specific to this type of wetland including Dwarf Birch and Buckbean.



Pitcher Plant: Janet Elliot

The rare Canada Warbler was one of the many bird species noted. The Nighthawks display and Whip-poor-wills singing all night were a joy to hear as these species are of concern with diminishing numbers.



Brown Thrasher nest: Janet Elliot

Two dragonflies- Cyrano Dancer and Harlequin Darner- were especially noted. A special sighting was a robber fly eating a parasitic wasp. A large number of moths were recorded- my favourite, a

Carmine Snout Moth. The invertebrate tally was enhanced by the use of a new light trap made possible by a BEAN (Biodiversity, Education and Awareness Network) grant received by KFN and built by Mike Burrell.



Leaf Beetle: Kurt Hennige

The final tally is 841 species! The most ever for a KFN BioBlitz! Well done everyone! Paul Mackenzie alone recorded 223 species!

There were 109 vertebrates including 15 mammals, 76 birds, 5 reptiles, 7 amphibians and 6 fish.

For invertebrates 31 odes (odonata-dragon and damselflies) and 108 leps (lepidoptera- 28 butterflies and 80 moth species) were recorded. The moth list is astounding! In addition we had 21 beetle species and 28 fly species as well as other insects and

other invertebrates for a total of 249 invertebrates.

The plant list of 462 species makes up well over half of the species seen and includes trees shrubs and flowering plants of varying habitats. There were 47 sedges, 21 grasses and 15 ferns. As well, non-flowering plants (algae, mosses and liverworts) were recorded and we had some fungi and two bacteria.

Thanks to all those who contributed to the smooth running of this event, from direction signs to registration to BBQ, and the committee which worked hard to ensure everything went smoothly. We appreciate the input from NCC (Nature Conservancy Canada) and MNRF (Ministry Natural Resources and Forestry) for this event. The tally following was compiled by Erwin Batalla (vertebrates), Barry Robertson (plants) and Anne Robertson (invertebrates and other species). This is no mean task and we are most grateful for the many hours spent on this job.

We hope our one day tally of the species found at the Menzel Centennial Provincial Park will provide a useful comparison in future years and that future generations who visit this site will find at least as much diversity.

Vertebrates

LIST OF MAMMALS	
<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
VESPERTILIONIDAE	
BATS	
<i>Lasiurus noctivagus</i>	Silver-haired Bat
<i>Eptesicus fuscus fuscus</i>	Big Brown Bat
<i>Lasiurus cinereus</i>	Hoary Bat
<i>Myotis lucifugus lucifugus</i>	Little Brown Bat
SCIURIDAE	
SQUIRRELS	
<i>Tamias striatus lysteri</i>	Chipmunk
<i>Sciurus carolinensis pennsylvanicus</i>	Gray Squirrel
<i>Tamiasciurus hudsonicus loquax</i>	Red Squirrel
<i>Marmota monax rufescens</i>	Groundhog
CASTORIDAE	
BEAVERS	
<i>Castor canadensis</i>	Beaver
MURIDAE	
MICE, RATS AND VOLES	
<i>Peromyscus maniculatus gracilis</i>	Common Deer Mouse
<i>Zapus hudsonius canadensis</i>	Meadow Jumping Mouse
<i>Peromyscus leucopus novoboracensis</i>	White-footed Mouse
CANIDAE	
DOGS	
<i>Canis latrans thomomys</i>	Coyote
MUSTELIDAE	
WEASELS	
<i>Mephitis mephitis nigra</i>	Striped Skunk
CERVIDAE	
DEER	
<i>Odocoileus virginianus borealis</i>	White-tailed Deer
LIST OF BIRDS	
<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
ANATIDAE	
SWANS, GEESE AND DUCKS	
<i>Branta canadensis</i>	Canada Goose
<i>Aix sponsa</i>	Wood Duck
<i>Anas platyrhynchos</i>	Mallard
<i>Lophodytes cucullatus</i>	Hooded Merganser
PHASIANIDAE	
UPLAND GAME BIRDS	
<i>Bonasa umbellus</i>	Ruffed Grouse
<i>Meleagris gallopavo</i>	Wild Turkey
GAVIIDAE	
LOONS	
<i>Gavia immer</i>	Common Loon

ARDEIDAE	HERONS AND BITTERNS
<i>Ardea herodias</i>	Great Blue Heron
ACCIPITRADAЕ, CATHARTIDAE	HAWKS AND VULTURES
<i>Cathartes aura</i>	Turkey Vulture
<i>Pandion haliaetus</i>	Osprey
<i>Circus cyaneus</i>	Northern Harrier
<i>Buteo platypterus</i>	Broad-winged Hawk
SCOLOPACIDAE	SHOREBIRDS
<i>Charadrius vociferous</i>	Killdeer
<i>Scolopax minor</i>	American Woodcock
LARIDAE	GULLS
<i>Larus delawarensis</i>	Ring-billed Gull
<i>Larus argentatus</i>	Herring Gull
COLUMBIDAE	DOVES
<i>Zenaida macroura</i>	Mourning Dove
CUCULIDAE	CUCKOOS
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo
CAPRIMULGIDAE	GOATSUCKERS
<i>Chordeiles minor</i>	Common Nighthawk
<i>Caprimulgus vociferus</i>	Eastern Whip-poor-will
ALCEDINIDAE	KINGFISHERS
<i>Megasceryle alcyon</i>	Belted Kingfisher
PICIDAE	WOODPECKERS
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker
<i>Picoides pubescens</i>	Downy Woodpecker
<i>Picoides villosus</i>	Hairy Woodpecker
<i>Colaptes auratus</i>	Northern Flicker
<i>Dryocopus pileatus</i>	Pileated Woodpecker
FALCONIDAE	FALCONS
<i>Falco sparverius</i>	American Kestrel
TYRANNIDAE	FLYCATCHERS
<i>Contopus virens</i>	Eastern Wood Pewee
<i>Empidonax aliorum</i>	Alder Flycatcher
<i>Empidonax traillii</i>	Willow Flycatcher
<i>Sayornis phoebe</i>	Eastern Phoebe
<i>Myiarchus crinitus</i>	Great-crested Flycatcher
<i>Tyrannus tyrannus</i>	Eastern Kingbird
VIREONIDAE	VIREOS
<i>Vireo gilvus</i>	Warbling Vireo

Vireo olivaceus	Red-eyed Vireo
CORVIDAE	JAYS AND CROWS
Cyanocitta cristata	Blue Jay
Corvus brachyrhynchos	American Crow
Corvus corax	Common Raven
HIRUNDINIDAE	SWALLOWS
Tachycineta bicolor	Tree Swallow
PARIDAE	CHICKADEES AND ALLIES
Poecile atricapillus	Black-capped Chickadee
SITTIDAE	NUTHATCHES
Sitta canadensis	Red-breasted Nuthatch
Sitta carolinensis	White-breasted Nuthatch
TURDIDAE	THRUSHES AND BLUEBIRDS
Catharus fuscescens	Veery
Hylocichla mustelina	Wood Thrush
Turdus migratorius	American Robin
MIMIDAE, STURNIDAE	THRASHERS AND STARLINGS
Dumetella carolinensis	Gray Catbird
Toxostoma rufum	Brown Thrasher
Sturnus vulgaris	European Starling
BOMBYCILLIDAE	WAXWINGS
Bombycilla cedrorum	Cedar Waxwing
PARULIDAE	WOOD WARBLERS
Seiurus aurocapillus	Ovenbird
Parkesia noveboracensis	Northern Waterthrush
Mniotilta varia	Black-and-white Warbler
Oreothlypis ruficapella	Nashville Warbler
Geothlypis trichas	Common Yellowthroat
Setophaga ruticilla	American Redstart
Setophaga magnolia	Magnolia Warbler
Setophaga petechia	Yellow Warbler
Setophaga pensylvanica	Chestnut-sided Warbler
Setophaga coronata	Yellow-rumped Warbler
Setophaga virens	Black-throated Green Warbler
Cardellina canadensis	Canada Warbler
EMBERIZIDAE	SPARROWS AND BUNTINGS
Spizella passerina	Chipping Sparrow
Spizella pusilla	Field Sparrow
Zonotrichia albicollis	White-throated Sparrow
Melospiza melodia	Song Sparrow
Melospiza georgiana	Swamp Sparrow
Pipilo erythrophthalmus	Eastern Towhee

CARDINALIDAE	CARDINALS AND ALLIES
<i>Piranga olivacea</i>	Scarlet tanager
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak
ICTERIDAE	MEADOWLARKS AND BLACKBIRDS
<i>Dolichonyx oryzivorus</i>	Bobolink
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Quiscalus quicula</i>	Common Grackle
<i>Molothrus ater</i>	Brown-headed Cowbird
<i>Icterus galbula</i>	Baltimore Oriole
FRINGILLIDAE	FINCHES
<i>Haemorhous purpureus</i>	Purple Finch
<i>Spinus tristis</i>	American Goldfinch
LIST OF REPTILES AND AMPHIBIANS	
SCIENTIFIC NAME	COMMON NAME
-	-
CHELYDRIDAE	SNAPPING TURTLES
<i>Chelydra serpentina</i>	Snapping Turtle
EMYDIDAE	POND AND MARSH TURTLES
<i>Chrysemys picta</i>	Midland Painted Turtle
COLUBRIDAE	TYPICAL SNAKES
<i>Nerodia sipedon</i>	Northern Water Snake
<i>Thamnophis sirtalis</i>	Eastern Garter Snake
<i>Storeria occipitomaculata</i>	Redbelly Snake
BUFONIDAE	TOADS
<i>Bufo americanus</i>	American Toad
HYLIDAE	TREEFROGS
<i>Hyla versicolor</i>	Gray Treefrog
<i>Pseudacris crucifer</i>	Spring Peeper
RANIDAE	TRUE FROGS
<i>Rana sylvatica</i>	Wood Frog
<i>Rana pipiens</i>	Northern Leopard Frog
<i>Rana clamitans</i>	Green Frog
<i>Rana catesbiana</i>	Bull Frog
LIST OF FISH	
SCIENTIFIC NAME	COMMON NAME
-	-
UMBRIDAE	MUDMINNOWS
<i>Umbra limi</i>	Central Mudminnow

CYPRINIDAE	MINNOWS
<i>Notemigonus crysoleucas</i>	Golden Shiner
<i>Pimephales promelas</i>	Fathead Minnow
ICTALURIDAE	BULLHEAD CATFISH
<i>Ameiurus nebulosus</i>	Brown Bullhead
CENTRARCHIDAE	SUNFISH
<i>Lepomis gibbosus</i>	Pumpkinseed
PERCIDAE	PERCH
<i>Perca flavescens</i>	Yellow Perch

Invertebrates

INVERTEBRATES	
INSECTA	INSECTS
Odonata	Dragonflies and Damselflies
Zygoptera	Damselflies
<i>Argia fumipennis</i>	Violet Dancer
<i>Chromagrion conditum</i>	Aurora Damsel
<i>Coenagrion resolutum</i>	Taiga Bluet
<i>Enallagma ebrium</i>	Marsh Bluet
<i>Ischnura posita</i>	Fragile Forktail
<i>Ischnura verticalis</i>	Eastern Forktail
<i>Nehalennia irene</i>	Sedge Sprite
<i>Calopteryx maculata</i>	Ebony Jewelwing
	Damselfly Nymph
Anisoptera	Dragonflies
	Dragonfly Nymph
Aeshnidae	Darners
<i>Anax junius</i>	Common Green Darner
<i>Aeshna canadensis</i>	Canada Darner
<i>Basiaeschna janata</i>	Sprintime Darner
<i>Nasiaeschna pentacantha</i>	Cyrano Darner
<i>Gomphaeschna fureillata</i>	Harlequin Darner
Corduliidae	Emeralds
<i>Cordulia shurtleffii</i>	American Emerald
<i>Dorocordulia libera</i> *	Racket-tailed Emerald
<i>Epiheca cynosura</i>	Common Baskettail
<i>Epiheca princeps</i>	Prince Baskettail
<i>Epiheca spinigera</i>	Spiny Baskettail
<i>Somatochlora</i> sp.	Striped Emerald

Gomphidae	Clubtails
Gomphus exilis	Lancet Clubtail
Gomphus spicatus	Dusky Clubtail
Libellulidae	Skimmers
Ladona julia	Chalk-fronted Corporal
Leucorrhina frigida	Frosted Whiteface
Leucorrhina hudsonica	Hudsonian Whiteface
Leucorrhinia intacta	Dot-tailed Whiteface
Leucorrhina proxima	Belted Whiteface
Libellula incesta	Slaty Skimmer
Libellula luctuosa	Widow Skimmer
Libellula pulchella	Twelve-spotted Skimmer
Libellula quadrimaculata	Four-spotted Skimmer
Plathemis lydia	Common Whitetail
Macromiidae	Cruisers
Orthoptera	Grasshoppers, Katydid and Crickets
Chloealtis conspersa	Sprinkled Locust
Chortophaga viridfasciata	N. Green-striped Grasshopper
Gryllus veletus	Spring Field Cricket
Melanoplus sp.	Spurthroated Grasshopper
Metrioptera roeselii	Roesel's Katydid
Blattodea	Roaches
Periplaneta americana	American Cockroach
Thysanoptera	Thrips
Thrips sp	Thrips sp.
Ephemeroptera	Mayflies
Mayfly nymph	Mayfly nymph
Hemiptera	True Bugs
Nymph sp	nymph
Bansa dimidiata	Stink Bug
Cedusa sp.	Derbid Planthopper
Cicadellidae family	Leaf Hoppers
Corixidae	Water Boatman
Gerris sp.	Water Strider
Lygaeus kalmi	Small Milkweed Bug
Lygus lineolaris	Tarnished Plant Bug
Nepidae family	Water Scorpion
Oncopeltus fasciatus	Large Milkweed Bug
Prociphilus tessallatus	Woolly Alder Aphid
Ranatra sp.	Water Scorpion
Arhysus	Scentless Plant Bug
	Water bug sp nymph

Neuroptera	Dobsonflies, Lacewings, Antlions and Relatives
Chrysoptidae	Green Lacewing sp.
Sub group Megaloptera	Fishflies
Chauliodes rasticornis	Spring Fishfly
Coleoptera	Beetles and Weevils
Anatis labiculata	Fifteen-spotted Lady Beetle
Anthonomus sp.	Weevil sp
Odontocorynus	Weevil sp
Genus Anomoea	Case-bearing Leaf Beetles
Chrysochus auratus	Dogbane Leaf Beetle
Cicindela sexguttata	Six-spotted Tiger Beetle
Coccinella trifasciata	Three-banded Lady Beetle
Dineutus sp.	Whirligig Beetle
Dytiscidae family	Predacious Diving Beetle sp 1
Dytiscidae family	Predaceous Diving Beetle sp 2
Gyrinidae sp.	Whirligig Beetle
Hydroptulidae sp	Water Scavenger Beetle
Labidomera clivicollis	Milkweed Leaf Beetle
Lucidota atra	Black Firefly
Monochamus scutellatus	White-spotted Pine Sawyer
Photinus consimilis	Firefly
Podabrus sp.	Soldier Beetle
Photuris sp.	Firefly sp
Pyractomena sp.	Firefly sp
Asclera ruficollis	Red-necked False Blister Beetle
Cantharinae (sub family)	Soldier Beetle
Trichoptera	Caddisflies
Hydropsychidae family	Caddisfly (larva)
Species unknown	Caddisfly sp
Lepidoptera	Butterflies, Moths and Skippers
Amblyscirtes vialis	Common Roadside Skipper
Celastrina ladon neglecta	Summer Azure
Chlosyne harrisii	Harris's Checkerspot
Callophrys gryneus	Juniper Hairstreak
Coenonympha tullia	Common Ringlet
Danaus plexippus	Monarch
Erynnis icelus	Dreamy Duskywing
Glaucopsyche lygdamus coup	Silvery Blue
Limenitis archippus	Viceroy
Liminites artemis	White Admiral/Red-spotted Purple
Liminites astyanax artemis	Red-spotted Purple
Megisto cymela	Little Wood-satyr
Nymphalis antiopa	Mourning Cloak
Papilio canadensis	Canadian Tiger Swallowtail
Papilio cresphontes	Giant Swallowtail
Papilio glaucus	Eastern Tiger Swallowtail

<i>Papilio polyxenes asterous</i>	Black Swallowtail
<i>Phyciodes cocyta</i>	Northern Crescent
<i>Pieris napi</i>	Mustard White
<i>Poanes hobomok</i>	Hobomok Skipper
<i>Polygona comma</i>	Eastern Comma
<i>Polygona interrogatonis</i>	Question Mark
<i>Polites mystic</i>	Long Dash Skipper
<i>Polites themistocles</i>	Tawny-edged Skipper
<i>Satyrodes eurydice</i>	Eyed Brown
<i>Thorybes pylades</i>	Northern Cloudywing
<i>Vanessa atalanta</i>	Red Admiral
<i>Vanessa virginiensis</i>	American Painted Lady
Moths arranged by Hodges number	
<i>Monopsis pilotella</i> 0421	Orange-headed Monopsis
<i>Bibarrambra allenella</i> 0911	Bog Bibarrambra Moth
<i>Coleophora mayrella</i> 1387	Metallic Coleophora Moth
<i>Athrips mouffetella</i> 1852	Ten-spotted Honeysuckle Moth
<i>Yponomeuta padella</i> 2421	Orchard Ermine
<i>Argyresthia thuiella</i> 2481	Arborvitae Leafminer
<i>Pseudocsiaphila duplex</i> maybe 2769	Poplar Leafroller
<i>Olethreutes</i> sp.2800	
<i>Olethreutes glaciana</i> 2847	Frosty Olethreutes
<i>Olethreutes bipartina</i> prob 2848	Divided Olethreutes
<i>Phaneta umbrastriana</i> prob 2913	Shaded phaneta
<i>Eucosma cataclystiana</i> maybe 3142	
<i>Epiblema scudderiana</i> prob 3186	Scudder's Epiblema
<i>Gypsonoma fasciolana</i> 3223	
<i>Choristoneura rosaceana</i> 3635	Oblique-banded Leafroller
<i>Archips strianus</i> 3664	Striated Tortrix
<i>Clepsis persicana</i> 3682	White Triangle Clepsid
<i>Packardia germinate</i> 4659	Jeweled Tailed Slug Moth
<i>Scoparia biplagiata</i> 4716	Double-striped Scoparia
<i>Elophila icciusalis</i> 4748	Pondside Crambid
<i>Elophila gyralis</i> 4751	Waterlily Borer
<i>Synclita oblitalis</i> 4755	Waterlily Leafcutter
<i>Desmia funeralis</i> 5159	Grape Leafroller
<i>Crambus saltuellus</i> 5363	Pasture Grass Veneer
<i>Tlascala reductella</i> 5808	Tlascala Moth
Phycitinae sp.6000	
<i>Peoria approximella</i> 6053	Carmine Snoutmoth
<i>Iridopsis vellivolata</i> 6582	Large Purplish Grey
<i>Melanolophia canadaria</i> poss <i>M. signataria</i> 6620	Canadian Melanolophia
<i>Hypagyrtis unipunctata</i> 6654	One-spotted Variant
<i>Cabera erythemaria</i> 6677	Yellow-dusred Cream
<i>Euchlaena muzaria</i> 6725	Muzaria Euchlaena
<i>Xanthotype urticaria</i> 6740	False Crocus Geometer
<i>Xanthotype</i> sp. <i>sospeta</i> 6743	Crocus Geometer
<i>Campaea perlata</i> 6796	Pale Beauty
<i>Homochloides fritillaria</i> 6812	Pale Homochloides

Metanema inatomia 6819	Pale Metanema
Plagodis pulveraria 6836	American Barred Umber Moth
Pleuroprucha insularia 7132	Common Tan Wave Moth
Haematopis grataria 7146	Chickweed Geometer
Mesoleuca ruficillata 7307	White-ribboned Carpet
Epirrhoe alternata 7394	White-banded Toothed Carpet
Malacasoma disstria 7698	Forest Tent Caterpillar Moth (larva)
Smerinthus jamaicensis 7821	Twin-spotted Sphinx
Hemaris thysbe 7853	Hummingbird Clearwing
Ellida caniplaga 7930	Linden Prominent
Furcula occidentalis 7939	Western Furcula
Schizura unicorni 8007	Unicorn Prominent
Pyrrharctica Isabella 8129	Isabella Tiger Moth
Hyphantria cunea 8140	Fall Webworm
Hypercompe scribonia 8146	Giant Leopard Moth
Ctenucha virginica 8262	Virginia Ctenucha
Ciseps fulvicollis 8267	Yellow-collared Scape Moth
Dasychura sp.8296	Tussock moth sp.
Zanclognatha liturali 8340	Lettered Fan-foot
Zanclognatha cruralis 8351	Early Fan-foot
Chytolita morbidalis 8355	Morbid Owlet
Chytolita petrealis 8356	Stone-winged Owlet
Bleptina caradrinalis 8370	Bent-winged Owlet Moth
Zale minerea 8697	Colorful Zale
Zale horrida 8717	Horrid Zale
Protodeltote muscosa 9047	Large Mossy Glyph
Protodeltote albidula 9048	Pale Glyph
Maliattha synochitis 9049	Black-spotted Glyph
Pseudeustrotia carneola 9053	Pink-barred Pseudeustrotia (Lithecodia)
Leuconycta lepidula 9066	Marble-green Leuconycta
Acronicta superans 9226	Splendid Dagger
Acronicta lobeliae 9238	Great Oak Dagger
Bellura oblique 9525	Cattail Borer
Phlogophora iris 9546	Olive Angle Shades
Balsa malana 9662	Appleworm
Balsa labecula 9664	White-blotched Balsa
Mamestra curialis 10272	Scripted Arches
Agrotis volubilis 10659	Voluble Dart
Striacosta albicosta 10878	Western Bean Cutworm
Ochropleura implecta 10891	Flame-shouldered Dart
Xestia dolosa 10942.1	Greater Black-letter Dart
Noctua pronuba 11003.1	Large Yellow Underwing Moth
Protolampra brunneicollis 11006	Brown-collared Dart
Nuctua pronuba 11012.1	Large Yellow Underwing Moth
Diptera	True Flies
Anthomyiidae family	Root Maggot Fly
Bombylius varius	Beefly sp
Ceratopogonidae family	Biting Midge larva
Chironomidae family	Midge
Chrysops sp.	Deer Fly

Chrysops sackeni	
Chrysops striatus	
Clinohalea currei	Biting Midge
Contarinia verrucicola	Linden Wart Gall Midge
Dasineura pellex	Ash Bullet Gall Midge
Dryomyza sp.	Orange Fly
Eristalis transversa	Transverse Flower Fly
Machimus sp.	Robber Fly
Machimus salyates	Robber Fly
Nephrotoma sp.	Crane Fly
Scarophagidae sp.	Flesh Fly
Scathophagidae family	Dung Fly
Sericomyia lata	Syrphid Fly
Syrphidae heloophilus	Syrphid Fly
Tabanus sp.	Horse Fly
Tabanus sp 2	Deer Fly
Tachinidae family	Parasitic Fly
Temnostoma sp.	Syrphid Fly
Tipulidae sp 1	Cranefly sp
Toxomerus geminatus	Flower Fly
Toxomerus marginatus	Flower Fly
Xylotina subtribe	Syrphid Fly
Bombyliinae	Bee Flies
Hymenoptera	Ants, Bees, Sawflies and Wasps
Ammophila sp.	Tread-waisted Wasp
Ancistrocerus antilope	Mason Wasp
Nomadinae--Genus Nomada	Nomad Bees
Bombus ternarius	Tricolored Bumble Bee
Componotus sp.	Black Ant
Halictus ligatus	Sweat Bee
Genus Megachile	Leaf-cutter and Resin Bees
Subgenus Xanthosarus	Leaf-cutter and Resin Bees
Lasioglossura sp.	Sweat Bee
	Red Ant sp
OTHER INVERTEBRATES	
Phylum Arthropoda	
Arachnida	Arachnids
Araneus sp.	Orb Weaver sp.
Dolomedes tenebrosus	Fishing Spider
Lycosidae family	Wolf Spider sp.
Frontinella communis	Doily and Bowl Spider
Misumena vatia	Goldenrod Crab Spider
Neoscona arabesca	Arabesque Orb Weaver
Salticus scenicus	Zebra Jumper
Phidippus sp.	Jumping Spider

Acari	Mites and Ticks
Ixodes scapularis	Black-legged Tick
Crustacea	Crustaceans
Isopod sp	Isopod sp
Bosmina sp 1	Bosminid Water Flea sp 1
Bosmina sp 2	Bosminid Water Flea sp 2
Ceriodaphnia sp	
Simocephalus sp.	
Chydoridae family	Water Flea
Eubosmina sp.	Bosminid Water Flea
Sididae sp.	Sidi Water Flea
Copepoda	
Ostracoda sp 1	Seed Shrimp sp
Ostracod sp 2	Seed Shrimp sp
Phylum Rotifera	Wheel animals
Stentor sp.	Trumpet Animalcule
Protista	
Euglena sp.	Flagellates
Phylum Mollusca	Molluscs
Gastropoda	Snails
Pulmonate Snail	Orb shell (operculum absent)
Succinidae sp.	Snail sp
Bivalvia	Clams, Mussels
Pyganodon grandis	Giant Floater Mussel
Phylum Annelida	Segmented Worms
Macrobdella decora	North American Leech
Oligochaete sp	sp unknown

Vascular Plants

VASCULAR PLANTS	
SCIENTIFIC NAME	COMMON NAME
-	-
EQUISETACEAE	HORSETAIL FAMILY
<i>Equisetum arvense</i>	Field (Common) Horsetail
<i>Equisetum fluviatile</i>	Water Horsetail
<i>Equisetum palustre</i>	Marsh Horsetail
<i>Equisetum sylvaticum</i>	Woodland Horsetail
OPHIOGLOSSACEAE	ADDERS-TONGUE FAMILY
<i>Botrychium virginianum</i>	Rattlesnake Fern
OSMUNDACEAE	FLOWERING FERN FAMILY
<i>Osmunda cinnamomea</i>	Cinnamon Fern
<i>Osmunda claytoniana</i>	Interrupted Fern
<i>Osmunda regalis</i>	Royal Fern
POLYPODIACEAE	FERN FAMILY
<i>Adiantum pedatum</i>	Maidenhair Fern
<i>Athyrium filix-femina</i>	Lady Fern
<i>Dryopteris cristata</i>	Crested Woodfern
<i>Dryopteris marginalis</i>	Marginal Wood Fern
<i>Dryopteris spinulosa</i>	Spinulose Wood Fern
<i>Matteuccia struthiopteris</i>	Ostrich Fern
<i>Gymnocarpium dryopteris</i>	Oak Fern
<i>Onoclea sensibilis</i>	Sensitive Fern
<i>Pteridium aquilinum</i>	Bracken Fern
<i>Thelypteris noveboracensis</i>	New York Fern
<i>Thelypteris palustris</i>	Marsh Fern
TAXACEAE	YEW FAMILY
<i>Taxus canadensis</i>	Canada Yew
PINACEAE	PINE FAMILY
<i>Abies balsamea</i>	Balsam Fir
<i>Larix laricina</i>	Tamarack (Larch)
<i>Picea glauca</i>	White Spruce
<i>Picea mariana</i>	Black Spruce
<i>Pinus strobus</i>	White Pine
<i>Tsuga canadensis</i>	Eastern Hemlock
CUPRESSACEAE	CYPRESS FAMILY
<i>Juniperus communis</i>	Common Juniper
<i>Juniperus virginiana</i>	Eastern Red Cedar
<i>Thuja occidentalis</i>	Eastern White Cedar
TYPHACEAE	CATTAIL FAMILY
<i>Typha angustifolia</i>	Narrow-leaved Cattail

<i>Typha latifolia</i>	Broad-leaved Cattail
SPARGANIACEAE	BUR-REED FAMILY
<i>Sparganium fluctans</i>	Floating Bur-reed
POTAMOGETONACEAE	PONDWEED FAMILY
<i>Potamogeton amplifolius</i>	Large-leaved Pondweed
<i>Potamogeton natans</i>	Floating (Broad-lvd) Pondweed
<i>Potamogeton pusillus</i>	Slender Pondweed
<i>Stuckenia filiformis</i>	Threadleaf Pondweed
<i>Stuckenia pectinata</i>	Sago Pondweed
ALISMATACEAE	WATER-PLANTAIN FAMILY
<i>Alisma plantago-aquatica</i>	Water Plantain
<i>Sagittaria graminea</i>	Grassleaf Arrowhead
<i>Sagittaria latifolia</i>	Broad-leaved Arrowhead
HYDROCHARITACEAE	FROG'S-BIT FAMILY
<i>Elodea canadensis</i>	Canada Water-weed (Pondweed)
<i>Hydrocharis morsus-ranae*</i>	European Frog-bit
<i>Vallisneria americana</i>	Eel-Grass
GRAMINEAE	GRASS FAMILY
<i>Agrostis perennans</i>	Upland Bentgrass
<i>Agrostis scabra</i>	Rough Bentgrass
<i>Bromus inermis*</i>	Awnless Brome
<i>Calamagrostis canadensis</i>	Bluejoint Reedgrass
<i>Cinna latifolia</i>	Slender Wood Reedgrass
<i>Dactylis glomerata*</i>	Orchard Grass
<i>Danthonia spicata</i>	Poverty Oat-Grass
<i>Festuca rubra</i>	Red Fescue
<i>Glyceria borealis</i>	Small Floating (Northern) Manna Grass
<i>Glyceria canadensis</i>	Canada (Rattlesnake) Manna Grass
<i>Glyceria striata</i>	Fowl Manna Grass
<i>Oryzopsis asperifolia</i>	White-grained Mountain-Rice
<i>Panicum philadelphicum</i>	Philadelphia Panic (Witch) Grass
<i>Phalaris arundinacea</i>	Reed Canary Grass
<i>Phleum pratense*</i>	Meadow Timothy
<i>Phragmites americanus</i>	American Reed Grass
<i>Phragmites australis</i>	Common Reed Grass
<i>Piptatherum racemosum</i>	Black-fruit Mountain-ricegrass
<i>Poa compressa*</i>	Canada Blue Grass
<i>Poa palustris</i>	Fowl Bluegrass (Meadow Grass)
<i>Poa pratensis</i>	Kentucky Blue-Grass
CYPERACEAE	SEDGE FAMILY
<i>Carex annectens</i>	Yellow-fruited Sedge
<i>Carex arctata</i>	Black Sedge
<i>Carex aquatilis</i>	Water Sedge
<i>Carex aurea</i>	Golden Sedge
<i>Carex bebbii</i>	Bebb's Sedge

<i>Carex chordorrhiza</i>	Creeping Sedge
<i>Carex comosa</i>	Bristly Sedge
<i>Carex crinita</i>	Fringed Sedge
<i>Carex diandra</i>	Lesser Panicked Sedge
<i>Carex disperma</i>	Two-seeded Sedge
<i>Carex eburnea</i>	Ebony Sedge
<i>Carex flava</i>	Yellow Sedge
<i>Carex gracillima</i>	Graceful Sedge
<i>Carex granularis</i>	Meadow Sedge
<i>Carex hitchcockiana</i>	Hitchcock's Sedge
<i>Carex hystericina</i>	Porcupine Sedge
<i>Carex interior</i>	Inland Sedge
<i>Carex intumescens</i>	Bladder (Villose) Sedge
<i>Carex lacustris</i>	Lake-bank Sedge
<i>Carex lasiocarpa</i>	Wire Sedge
<i>Carex leptalea</i>	Bristly-stalk Sedge
<i>Carex limosa</i>	Mud Sedge
<i>Carex lupulina</i>	Hop Sedge
<i>Carex magellanica</i>	Boreal Bog Sedge
<i>Carex ormostachya</i>	Necklass Spike Sedge
<i>Carex pennsylvanica</i>	Pennsylvania Sedge
<i>Carex plantaginea</i>	Plantain-leaved (Seersucker) Sedge
<i>Carex pseudocyperus</i>	Cyperus-like Sedge
<i>Carex retrorsa</i>	Retrorsse Sedge
<i>Carex rosea</i>	Rosy Sedge
<i>Carex spicata</i>	Prickly Sedge
<i>Carex stipata</i>	Stalk-grain (Stipate) Sedge
<i>Carex stricta</i>	Tussock Sedge
<i>Carex trisperma</i>	Three-seed Sedge
<i>Carex utriculata</i>	Northern Beaked Sedge
<i>Carex vulpinoidea</i>	Fox Sedge
<i>Dulichium arundinaceum</i>	Three-way Sedge
<i>Eleocharis acicularis</i>	Least Spike-rush
<i>Eleocharis intermedia</i>	Matted Spike-rush
<i>Eleocharis palustris</i>	Marsh (Creeping) Spike-rush
<i>Eriophorum viridi-carinatum</i>	Green Keeled Cotton-grass
<i>Eriophorum vaginatum</i>	Tussock Cotton-Grass
<i>Schoenoplectus subterminalis</i>	Swaying Club-rush
<i>Schoenoplectus tabernaemontani</i>	Soft-stem Club-rush
<i>Scirpus atrovirens</i>	Dark-green Bulrush
<i>Scirpus cyperinus</i>	Cottongrass Bulrush
<i>Trichoporum alpinum</i>	Alpine Bulrush
ARACEAE	ARUM FAMILY
<i>Arisaema triphyllum</i>	Jack-in-the -pulpit
<i>Calla palustris</i>	Water Arum
<i>Peltandra virginica</i>	Arrow-arum
LEMNACEAE	DUCKWEED FAMILY
<i>Lemna minor</i>	Common Duckweed
<i>Lemna trisulca</i>	Star Duckweed

JUNCAEAE	RUSH FAMILY
<i>Juncus dudleyi</i>	Dudley's Rush
<i>Juncus tenuis</i>	Path (Slender) Rush
LILIACEAE	LILY FAMILY
<i>Allium tricoccum</i>	Wild Leek
<i>Asparagus officinalis</i> *	Asparagus
<i>Clintonia borealis</i>	Bluebead-lily
<i>Erythronium americanum</i>	Trout-lily, Yellow
<i>Maianthemum canadense</i>	Wild Lily-of-the-Valley
<i>Polygonatum pubescens</i>	Hairy Solomon's Seal
<i>Maianthemum racemosum</i>	False Soloman's Seal
<i>Maianthemum stellatum</i>	Star-flowered False Soloman's Seal
<i>Maianthemum trifolium</i>	Three-leaved False Soloman's Seal
<i>Trillium erectum</i>	Red Trillium
<i>Trillium grandiflorum</i>	White Trillium
<i>Uvularia grandiflora</i>	Large-flowered Bellwort
IRIDACEAE	IRIS FAMILY
<i>Iris versicolor</i>	Blue Flag
<i>Sisyrinchium angustifolium</i>	Blue-eyed Grass
<i>Sisyrinchium montanum</i>	Strict Blue-eyed Grass
ORCHIDACEAE	ORCHID FAMILY
<i>Calopogon tuberosus</i>	Grass Pink
<i>Cypripedium acaule</i>	Moccasin Flower
<i>Cypripedium calceolus</i>	Yellow Lady-Slipper
<i>Cypripedium reginae</i>	Showy Lady-Slipper
<i>Epipactis helleborine</i> *	Helleborine
<i>Liparis loeselii</i>	Loesel's Tway-blade
<i>Plantathera clavellata</i>	Little Club--spur Orchid
<i>Plantathera dilatata</i>	Tall White Bog-orchid
<i>Pogonia ophioglossoides</i>	Rose Pogonia
SALICACEAE	WILLOW FAMILY
<i>Populus balsamifera</i>	Balsam Poplar
<i>Populus deltoides</i>	Eastern Cottonwood
<i>Populus grandidentata</i>	Large-toothed Aspen
<i>Populus tremuloides</i>	Aspen Poplar (Trembling Aspen)
<i>Salix amygdaloides</i>	Peach-leaf Willow
<i>Salix bebbiana</i>	Beaked Willow
<i>Salix discolor</i>	Pussy Willow
<i>Salix candida</i>	Hoary Willow
<i>Salix fragilis</i>	Crack Willow
<i>Salix humilis</i>	Upland Willow
<i>Salix lucida</i>	Shining Willow
<i>Salix pedicellaris</i>	Bog Willow
<i>Salix petiolaris</i>	Slender Willow
<i>Salix serissima</i>	Autumn Willow

MYRICACEAE	BAYBERRY FAMILY
<i>Myrica gale</i>	Sweet Gale
JUGLANDACEAE	WALNUT FAMILY
<i>Carya cordiformis</i>	Bitternut Hickory
<i>Carya ovata</i>	Shagbark Hickory
<i>Juglans cinerea</i>	Butternut
BETULACEAE	BIRCH FAMILY
<i>Alnus incana</i>	Speckled Alder
<i>Betula alleghaniensis</i>	Yellow Birch
<i>Betula glandulosa</i>	Tundra Dwarf Birch
<i>Betula papyrifera</i>	White Birch
<i>Betula pumila</i>	Swamp Birch
<i>Carpinus caroliniana</i>	Blue Beech
<i>Corylus cornuta</i>	Beaked Hazelnut
<i>Ostrya virginiana</i>	Hop-Hornbean
FAGACEAE	BEECH FAMILY
<i>Fagus grandifolia</i>	American Beech
<i>Quercus rubra</i>	Red Oak
<i>Quercus macrocarpa</i>	Bur Oak
<i>Quercus alba</i>	White Oak
ULMACEAE	ELM FAMILY
<i>Ulmus americana</i>	White Elm
<i>Ulmus rubra</i>	Red (Slippery) Elm
<i>Ulmus thomasii</i>	Rock Elm
URTICACEAE	NETTLE FAMILY
<i>Boehmeria cylindrica</i>	False Nettle
<i>Urtica dioica</i> *	Stinging Nettle
SANTALACEAE	SANDALWOOD FAMILY
<i>Comandra umbellata</i>	Bastard Toadflax
POLYGONACEAE	BUCKWHEAT FAMILY
<i>Polygonum amphibium</i>	Water Smartweed
<i>Polygonum aviculare</i>	Prostrate Knotweed
<i>Polygonum cilinode</i>	Fringed Wild Buckwheat
<i>Rumex acetocella</i> *	Sheep Sorrel
<i>Rumex crispus</i> *	Curled Dock
<i>Rumex orbiculatus</i>	Great Water Dock
CHENOPODIACEAE	GOOSEFOOT FAMILY
<i>Chenopodium album</i> *	Lamb's-Quarters
<i>Chenopodium hybridum</i>	Maple-leaved Goosefoot
PORTULACACEAE	PURSLANE FAMILY
<i>Claytonia virginica</i>	Narrow-leaved Spring-beauty
<i>Portulaca oleracea</i> *	Maple-leaved Goosefoot

CARYOPHYLLACEAE	PINK FAMILY
<i>Cerastium arvense</i>	Meadow Chickweed
<i>Silene vulgaris</i>	Bladder Campion
NYMPHAEACEAE	WATER-LILY FAMILY
<i>Brasenia schreberi</i>	Water-shield
<i>Nuphar variegata</i>	Bullhead-Lily
<i>Nymphaea odorata</i>	Fragrant White Water-lily
RANUNCULACEAE	CROWFOOT FAMILY
<i>Actaea pachypoda</i>	White Baneberry
<i>Actaea rubra</i>	Red Baneberry
<i>Anemone canadensis</i>	Canada Anemone
<i>Anemone cylindrica</i>	Long-fruited Anemone (Thimbleweed)
<i>Anemone virginiana</i>	Riverbank Anemone (Thimbleweed)
<i>Aquilegia canadensis</i>	Wild Columbiine
<i>Caltha palustris</i>	Marsh-Marigold
<i>Clematis virginiana</i>	Virgin's-bower
<i>Coptis trifolia</i>	Goldthread
<i>Hepatica acutiloba</i>	Sharp-lobed Hepatica
<i>Hepatica americana</i>	Round-lobed Hepatica
<i>Ranunculus abortivus</i>	Small-flowered Crowfoot
<i>Ranunculus acris*</i>	Tall Buttercup
<i>Ranunculus flabellaris</i>	Yellow Water Buttercup
<i>Ranunculus longirostris</i>	White Water-crowfoot
<i>Ranunculus scleratus</i>	Cursed Crowfoot
<i>Thalictrum pubescens</i>	Tall Meadow-rue
<i>Thalictrum dioicum</i>	Early Meadow-rue
BERBERIDACEAE	BARBERRY FAMILY
<i>Caulophyllum thalictroides</i>	Blue Cohosh
PAPAVERACEAE	POPPY FAMILY
<i>Sanguinaria canadensis</i>	Bloodroot
CRUCIFERAE	MUSTARD FAMILY
<i>Arabis divaricarpa</i>	Rock Cress
<i>Berteroa incana*</i>	Hoary Alyssum
<i>Brassica nigra</i>	Black Mustard
<i>Capsella bursa-pastoris*</i>	Shepherd's-purse
<i>Cardamine parviflora</i>	Small-flowered Bittercress
<i>Cardamine pensylvanica</i>	Pennsylvania Bittercress
<i>Cardamine pratensis</i>	Cuckoo Flower
<i>Cardamine diphylla</i>	Toothwort
<i>Erysimum cheiranthoides*</i>	Wormseed Mustard
<i>Lepidium campestre*</i>	Field Peppergrass
<i>Thlaspi arvense*</i>	Field Pennycress
SARRACENIACEAE	PITCHER-PLANT FAMILY
<i>Sarracenia purpurea</i>	Pitcher-plant

DROSERACEAE	SUNDEW FAMILY
<i>Drosera rotundifolia</i>	Round-leaved Sundew
CRASSULACEAE	ORPINE FAMILY
<i>Sedum acre</i> *	Mossy Stonecrop
SAXIFRAGACEAE	SAXIFRAGE FAMILY
<i>Mitella diphylla</i>	Mitrewort
<i>Saxifraga virginensis</i>	Early Saxifrage
<i>Tiarella cordifolia</i>	Foam flower
GROSSULARIACEAE	GOOSEBERRY FAMILY
<i>Ribes americanum</i>	Black Currant
<i>Ribes cynosbati</i>	Prickly Gooseberry
<i>Ribes hirtellum</i>	Wild Gooseberry
<i>Ribes oxycanthoides</i>	Bristly Gooseberry
<i>Ribes rubrum</i>	Northern Red Currant
<i>Ribes triste</i>	Swamp Red Currant
ROSACEAE	ROSE FAMILY
<i>Agrimonia gryposepala</i>	Agrimony
<i>Amerlanchier sanguinea</i>	Round-leaved Serviceberry
<i>Argentina anserina</i>	Silverweed
<i>Aronia melanocarpa</i>	Black Chokeberry
<i>Fragaria vesca</i>	Wood Strawberry
<i>Fragaria virginiana</i>	Common (Wild) Strawberry
<i>Geum allepicum</i>	Yellow Avens
<i>Geum canadense</i>	White Avens
<i>Potentilla argentea</i> *	Silvery Cinquefoil
<i>Potentilla arguta</i>	Tall Cinquefoil
<i>Dasiphora fruticosa</i>	Shrubby Cinquefoil
<i>Potentilla norvegica</i>	Rough Cinquefoil
<i>Potentilla palustris</i>	Marsh Cinquefoil
<i>Potentilla recta</i> *	Sulphur Cinquefoil
<i>Potentilla inclinata</i>	Intermediate Cinquefoil
<i>Prunus pennsylvanica</i>	Pin Cherry
<i>Prunus serotina</i>	Black Cherry
<i>Prunus virginiana</i>	Choke Cherry
<i>Pyrus malus</i> *	Apple
<i>Rosa blanda</i>	Smooth Wild Rose
<i>Rosa palustris</i>	Swamp Rose
<i>Rubus allegheniensis</i>	Common Blackberry
<i>Rubus idaeus</i>	Wild Red Raspberry
<i>Rubus hispidus</i>	Swamp Dewberry
<i>Rubus occidentalis</i>	Black Raspberry
<i>Rubus pubescens</i>	Dwarf Raspberry
<i>Spiraea alba</i>	Narrow-leaved Meadowsweet
<i>Spiraea tomentosa</i>	Steeple-bush
<i>Waldsteinia fragarioides</i>	Barren-Strawberry

FABACEAE	BEAN FAMILY
<i>Amphicarpa bracteata</i>	Hog Peanut
<i>Lathyrus palustris</i>	Marsh Pea (Vetchling)
<i>Lotus corniculatus*</i>	Bird's-foot Trefoil
<i>Medicago lupulina*</i>	Black Medic
<i>Medicago sativa*</i>	Alfalfa
<i>Melilotus alba*</i>	White Sweet-clover
<i>Melilotus officinalis*</i>	Yellow Sweet-clover
<i>Trifolium hybridum*</i>	Alsike Clover
<i>Trifolium pratense*</i>	Red Clover
<i>Trifolium repens*</i>	White Clover
<i>Vicia cracca*</i>	Cow Vetch
GERANIACEAE	GERANIUM FAMILY
<i>Geranium bicknellii</i>	Bicknell's Cranebill
<i>Geranium robertianum</i>	Herb-robert
RUTACEAE	RUE FAMILY
<i>Zanthoxylum americanum</i>	Prickly-Ash
ANACARDIACEAE	CASHEW FAMILY
<i>Rhus aromatica</i>	Fragrant Sumac
<i>Rhus glabra</i>	Smooth Sumac
<i>Rhus vernix</i>	Poison Sumac
<i>Toxicodendron radicans</i>	Eastern Poison Ivy
AQUIFOLIACEAE	HOLLY FAMILY
<i>Ilex verticillata</i>	Winterberry
CELASTRACEAE	STAFF-TREE FAMILY
<i>Celastrus scandens</i>	Climbing Bittersweet
ACERACEAE	MAPLE FAMILY
<i>Acer negundo</i>	Manitoba Maple
<i>Acer rubrum</i>	Red Maple
<i>Acer saccharinum</i>	Silver Maple
<i>Acer saccharum</i>	Sugar Maple
BALSAMINACEAE	TOUCH-ME-NOT FAMILY
<i>Impatiens capensis</i>	Spotted Jewel-weed
RHAMNACEAE	BUCKTHORN FAMILY
<i>Rhamnus cathartica*</i>	European Buckthorn
<i>Frangula alnus</i>	Glossy Buckthorn
VITACEAE	GRAPE FAMILY
<i>Parthenocissus vitacea</i>	Virginia Creeper
<i>Vitis riparia</i>	Riverbank Grape
TILIACEAE	LINDEN FAMILY

<i>Tilia americana</i>	Basswood
HYPERICACEAE	ST. JOHN'S-WORT FAMILY
<i>Hypericum punctatum</i>	Common St. John's-wort
<i>Hypericum fraseri</i>	Marsh St. John's-wort
VIOLACEAE	VIOLET FAMILY
<i>Viola conspersa</i>	Dog Violet
<i>Viola macloskeyi</i>	Northern White Violet
<i>Viola pubescens</i>	Downy Yellow Violet
<i>Viola renifolia</i>	Kidney-leaf White Violet
ELAEAGNACEAE	OLEASTER FAMILY
<i>Shepherdia canadensis</i>	Russet Buffaloberry
LYTHRACEAE	LOOSESTRIFE FAMILY
<i>Decodon verticillatus</i>	Water-Willow
<i>Lythrum salicaria</i> *	Purple Loosestrife
ONAGRACEAE	EVENING-PRIMROSE FAMILY
<i>Epilobium ciliatum</i>	Northern Willowherb
<i>Ludwigia palustris</i>	Water Purslane
<i>Oenothera biennis</i>	Yellow Evening Primrose
ARALIACEAE	GINSENG FAMILY
<i>Aralia nudicaulis</i>	Wild Sarsaparilla
<i>Arakua racemosa</i>	Spikenard
UMBELLIFERAE	PARSLEY FAMILY
<i>Cicuta bulbifera</i>	Bulb-bearing Water Hemlock
<i>Daucus carota</i> *	Wild Carrot (Queen Anne's Lace)
<i>Osmorrhiza claytoni</i>	Hairy Sweet Cicely
<i>Berula erecta</i>	Wild Parsnip
<i>Sanicula marilandica</i>	Black Snakeroot (Sanicle)
<i>Sium suave</i>	Water Parsnip
CORNACEAE	DOGWOOD FAMILY
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood
<i>Cornus obliqua</i>	Silky Dogwood
<i>Cornus canadensis</i>	Bunchberry
<i>Cornus racemosa</i>	Grey Dogwood
<i>Cornus rugosa</i>	Round-leaved Dogwood
<i>Cornus stolonifera</i>	Red-osier Dogwood
MONOTROPACEAE	INDIAN PIPE FAMILY
<i>Monotropa uniflora</i>	Indian Pipe
PYROLACEAE	SHINLEAF FAMILY
<i>Chimaphila umbellata</i>	Pipsissewa
<i>Moneses uniflora</i>	One-flowered Wintergreen
<i>Pyrola asarifolia</i>	Pink Pyrola

<i>Pyrola elliptica</i>	Shinleaf
<i>Pyrola rotundifolia</i>	Round-leaved Pyrola
<i>Pyrola virens</i>	Greenish-flowered Pyrola
ERICACEAE	HEATH FAMILY
<i>Andromeda polifolia</i> s. <i>glaucophylla</i>	Bog Rosemary
<i>Andromeda polifolia</i> v. <i>latifolia</i>	Glaucous-leaved Bog Rosemary
<i>Chamaedaphne calyculata</i>	Leatherleaf
<i>Gaultheria hispidula</i>	Creeping Snowberry
<i>Gaylussica baccata</i>	Huckleberry
<i>Rhodoendron groenlandica</i>	Labrador Tea
<i>Vaccinium corymbosum</i>	High-bush Blueberry
<i>Vaccinium macrocarpon</i>	Large Cranberry
<i>Vaccinium oxycoccos</i>	Small Cranberry
PRIMULACEAE	PRIMROSE FAMILY
<i>Lysimachia terrestris</i>	Swamp Candles
<i>Lysimachia thyriflora</i>	Yellow (Tufted) Loosestrife
<i>Trientalis borealis</i>	Starflower
OLEACEAE	OLIVE FAMILY
<i>Fraxinus americana</i>	White Ash
<i>Fraxinus nigra</i>	Black Ash
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Syringa vulgaris</i> *	Common Lilac
APOCYNACEAE	DOGBANE FAMILY
<i>Apocynum androsaemifolium</i>	Spreading Dogbane
<i>Apocynum cannabinum</i>	Indian Hemp
ASCLEPIDACEAE	MILKWEED FAMILY
<i>Asclepias incarnata</i>	Swamp Milkweed
<i>Asclepias syriaca</i>	Common Milkweed
POLEMONIACEAE	BUCKBEAN FAMILY
<i>Menyanthes trifoliata</i>	Buckbean
CONVOLVULACEAE	MORNING-GLORY FAMILY
<i>Convolvulus arvensis</i> *	Field Bindweed
BORAGINACEAE	BORAGE FAMILY
<i>Cynoglossum officinale</i> *	Hound's Tongue
<i>Echium vulgare</i> *	Viper's Bugloss (Blue-weed)
<i>Myosotis verna</i>	Early Forget-me-not
VERBENACEAE	VERVAIN FAMILY
<i>verbena hastata</i>	Blue Vervain
<i>Verbena simplex</i>	Narrow-leaved Vervain
LABIATAE	MINT FAMILY
<i>Clinopodium vulgare</i>	Wild Basil

<i>Hedeoma hispida</i>	Rough False Pennyroyal
<i>Leonuris cardiaca</i> *	Motherwort
<i>Lycopus americanus</i>	Water Horehound
<i>Lycopus uniflorus</i>	Bugleweed (Cutleaved Water Horehound)
<i>Mentha arvensis</i>	Wild Mint
<i>Nepeta cataria</i> *	Catnip
<i>Prunella vulgaris</i> *	Heal-all
<i>Scutellaria galericulata</i>	Marsh Skullcap
<i>Scutellaria lateriflora</i>	Mad-dog Skullcap
SOLANAEAE	NIGHTSHADE FAMILY
<i>Physalis heterophylloa</i>	Clammy Groundd-cherry
<i>Solanum dulcamara</i> *	Bittersweet Nightshade
SCROPHULARIACEAE	FIGWORT FAMILY
<i>Agalinis paupercula</i>	Small-flowereed Gerardia
<i>Linaria vulgaris</i> *	Yellow Toadflax (Butter and Eggs)
<i>Penstemon digitalis</i>	Foxglove Beardtongue
<i>Verbascum thapsus</i> *	Common Mullein
<i>Veronica arvensis</i>	Corn Speedwell
<i>Vewronica serpyllifolia</i>	Thyme-leaved Speedwell
LENTIBULARIACEAE	BLADDERWORT FAMILY
<i>Utricularia vulgaris</i>	Common (Greater) Bladderwort
<i>Utricularia intermedia</i>	Flat-leaved Bladderwort
PLANTAGINACEAE	PLANTAIN FAMILY
<i>Plantago lanceolata</i>	English Plantain
<i>Plantago major</i> *	Broad-leaved (Common) Plantain
<i>Plantago rugelii</i> *	Red-stemmed Plantain
RUBIACEAE	MADDER FAMILY
<i>Gallium aparine</i>	Gleavers
<i>Gallium circaezans</i>	Wild Licorice
<i>Gallium labradoricum</i>	Bog Bedstraw
<i>Gallium mollugo</i> *	Wild Madder
<i>Galaium obtusum</i>	Blunt-leaf Bedstraw
<i>Gallium palustre</i>	Marsh Bedstraw
<i>Gallium triflorum</i>	Fragrant Bedstraw
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY
<i>Diervilla lonicera</i>	Bush Honeysuckle
<i>Linnaea borealis</i>	Twinflower
<i>Lonicera canadensis</i>	Canada Fly-honeysuckle
<i>Lonicera tatarica</i> *	Tartarian Honeysuckle
<i>Lnicera oblongifolia</i>	Swamp Fly-honeysuckle
<i>Sambucus racemosa</i>	Red-berried Elder
<i>Symphoricarpos albus</i>	Thin-leaved Snowberry
<i>Triosteum aurantiacum</i>	Horse-gentain
<i>Viburnum acerifolium</i>	Maple-leaved Viburnum
<i>Viburnum lentago</i>	Nannyberry

<i>Viburnum rafinesquianum</i>	Downy Arrowwood
<i>Viburnum recognitum</i>	Smooth Arrowwood
CAMPANULACEAE	HAREBELL FAMILY
<i>Campanula rapunculoides</i> *	Creeping Harebell
LOBELIACEAE	LOBELIA FAMILY
<i>Lobelia inflata</i>	Indian Tobacco
<i>Lobelia kalmii</i>	Kalm's Lobelia
COMPOSITAE	COMPOSITE FAMILY
<i>Achillea millefolium</i>	Yarrow
<i>Ageratina altissima</i>	White-snakeroot
<i>Ambrosia artemisiifolia</i>	Common Ragweed
<i>Anaphalis margaritacea</i>	Pearly Everlasting
<i>Antennaria neglecta</i>	Field Pussy-toes
<i>Arctium minus</i> *	Common Burdock
<i>Oclemena acuminatus</i>	Whorled Wood Aster
<i>Doelleringia umbellatus</i>	Flat-topped White Aster
<i>Bidens cernua</i>	Nodding Beggarticks
<i>Bidens frondosa</i>	Devil's Beggarticks
<i>Carduus acanthoides</i> *	Plumeless Thistle
<i>Chrysanthemum leucanthemum</i> *	Ox-eye Daisy
<i>Cichorium intybus</i> *	Chicory
<i>Cirsium discolor</i>	Field Thistle
<i>Cirsium arvense</i> *	Canada Thistle
<i>Cirsium vlgare</i> *	Bull Thistle
<i>Conyza canadensis</i>	Horseweed
<i>Erigeron annuus</i>	Annual (Daisy) Fleabane
<i>Erigeron philadelphicus</i>	Philadelphia (Common) Fleabane
<i>Erigeron strigosus</i>	Lesser Daisy Fleabane
<i>Eupatorium perfoliatum</i>	Boneset
<i>Eurybia macrophyllus</i>	Large-leaved Aster
<i>Eutrochium maculatum</i>	Spotted Joe-pye-weed
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod
<i>Eutrochium maculatum</i>	Spotted Joe-pye-weed
<i>Helianthus divaricatus</i>	Woodland Sunflower
<i>Eutrochium dubium</i>	Eastern Joe-Pye-weed
<i>Heliopsis helianthoides</i>	Ox-eye
<i>Hieracium aurantiacum</i> *	Orange Hawkweed
<i>Hieracium caespitosum</i>	Field Hawkweed
<i>Hieracium pilosella</i> *	Mouse-ear Hawkweed
<i>Symphyotrichum boreale</i>	Rush Aster
<i>Symphyotrichum cordifolius</i>	Heart-leaved Aster
<i>Symphyotrichum ericoides</i>	Heath Aster
<i>Symphyotrichum lanceolatum</i>	Panicled Aster
<i>Symphyotrichum novae-angliae</i>	New England Aster
<i>Symphyotrichum lateriflorum</i>	Calico Aster
<i>Symphyotrichum puniceum</i>	Purple-stemmed Aster
<i>Symphyotrichum urophyllum</i>	Arrow-leaved Aster
<i>Pilosella piloselloides</i> *	Smooth (Tall) Hawkweed

<i>Inula helenium</i> *	Elecampane
<i>Lactuca canadensis</i>	Canada Lettuce (Wild Lettuce)
<i>Nabalus albus</i>	White-lettuce
<i>Rudbeckia hirta</i>	Black-eyed Susan
<i>Senecio pauperculus</i>	Balsam Ragwort
<i>Solidago altissima</i>	Tall Goldenrod
<i>Solidago bicolor</i>	Silverrod
<i>Solidago caesia</i>	Blue-stemmed Goldenrod
<i>Solidago canadensis</i>	Canada Goldenrod
<i>Soldiago flexicaulis</i>	Zigzag Goldenrod
<i>Solidago gigantea</i>	Late (Tall) Goldenrod
<i>Solidago juncea</i>	Early Goldenrod
<i>Soildago nemoralis</i>	Gray Goldenrod
<i>Solidago rugosa</i>	Rough Goldenrod
<i>Solidago ptarmicoides</i>	Upland White Goldenrod (Aster)
<i>Solidago uliginosa</i>	Bog Goldenrod
<i>Sonchus asper</i> *	Spiny Annual Sow-Thistle
<i>Tanacetum vulgare</i> *	Tansy
<i>Taraxacum officinale</i> *	Common Dandelion
<i>Taraxicum palustre</i>	Marsh Dandelion
<i>Tragopogon dubius</i>	(Fistulous) Goat's-beard
<i>Tragopogon pratensis</i> *	Meadow Goat's-beard

Non-Vascular Plants and Fungi

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
-	-
Algae	
Division Charophyta	Green Algae
<i>Nitella</i> spp.	Brittlewort
Division Chrysophyta	Diatoms
<i>Diatom</i> sp.	Pennate diatom
Mosses	
<i>Aulacomnium palustre</i>	Ribbed Bog Moss
<i>Brachythecium</i> sp.	Foxtail Moss sp.
<i>Bryum argenteum</i>	Silver Moss
<i>Calliergon giganteum</i>	Bubble-lobed Spear Moss
<i>Ceratodon purpureus</i>	Purple Moss
<i>Helodium blandowii</i>	Wide-leaved Beard Moss
<i>Helodium blandowii</i>	Wide-leaved Beard Moss
<i>Hypnum lindbergii</i>	Pale Plait Moss
<i>Sphagnum wolfianum</i>	Wolf Peat Moss
Lichen	
<i>Cladina</i> sp.	Reindeer Moss
Bacteria	

Cyanobacteria	
<i>Gleotrichia</i> sp.	colonial
<i>Microcystis</i> sp (<i>aeruginosa</i> ?)	colonial
Fungi	
<i>Cerioporus squamosus</i>	Dryad Saddle
<i>Cerioporus leptocephalus</i>	Blackfooted Polypore
<i>Cortinaria</i> sp	
<i>Fomes fomentarius</i>	Hoof Polypore
<i>Ganoderma applanatum</i>	Artist Conk
<i>Gymnosporangium juniper-virginianae</i>	Cedar AppleRust
<i>Piptoporus betulinus</i>	Birch Polypore
<i>Trametes versicolor</i>	Turkey Tail Polypody

Winter Finch Forecast 2016-2017

Ron Pittaway, Ontario Field Ornithologists reprinted with permission



GENERAL FORECAST: Cone crops average poor in Southern Ontario, Quebec, Atlantic Canada, New York, Vermont and New Hampshire, but crops are generally good to bumper in Northern Ontario, Western Canada and Alaska. The dividing

line is roughly James Bay south along the Ontario-Quebec border. White-winged Crossbills and often Pine Siskins prefer to move east or west rather than go south in search of cone crops. Many crossbills and some siskins may have already relocated to northern Ontario and across the boreal forest to Yukon where spruce cone crops are abundant. Purple Finches in the East are currently moving south in numbers. See individual forecasts for other finches and further details.

NOTE: Many birds will have a difficult time finding natural food sources this winter in Southern Ontario and the Northeast.

INDIVIDUAL FORECASTS: Forecasts apply mainly to Ontario and adjacent provinces and states.

Three irruptive non-finch passerines whose movements are often linked to finches are also discussed. Follow finch wanderings this fall and winter on eBird.

PINE GROSBEAK: Most should stay in the north because native Mountain-ash berry crops are good to bumper (some poor areas) across the boreal forest. A few may wander to southern Ontario where they like European Mountain-ash berries and small ornamental crabapples. At feeders they prefer black oil sunflower seeds.

PURPLE FINCH: Eastern Purple Finches were moving in early September at the Observatoire d'oiseaux de Tadoussac in Quebec. The poor seed crops on most coniferous and deciduous trees indicate that Purple Finches will leave northern breeding areas. Purples prefer black oil sunflower seeds at feeders.

RED CROSSBILL: A scattering of Red Crossbills will likely wander widely in the Northeast this winter. Listen and watch for them on large-coned ornamental pines and spruces. Red Crossbills comprise at least 10 "call types" in North America. Most types are impossible to identify without analyzing recordings of their flight calls. Matt Young (may6@cornell.edu) at The Cornell Lab of Ornithology will identify types if you email him recordings.

WHITE-WINGED CROSSBILL: This crossbill irrupts south only in years of widespread cone crop failures. Many eastern crossbills have probably moved to northern Ontario

and to abundant spruce cone crops in western Canada. However, expect some White-winged Crossbills to be scattered across southern Canada and the northeastern USA. Both crossbill species increasingly use feeders with black oil sunflower seeds when conifer seeds are scarce.

COMMON REDPOLL: Last fall and winter's large irruptive southward flight was unexpectedly halted north of latitude 45 degrees by a bumper seed crop on Balsam Fir. If redpolls move south this year, they will likely continue to southern Canada and the northern states because birch seed crops are generally low across the Northeast. In redpoll flocks, check for larger and darker "Greater" Common Redpolls (subspecies *rostrata*) from Baffin Island (Nunavut) and Greenland. Redpolls prefer nyger seeds in silo feeders with or without perches.

HOARY REDPOLL: Watch for Hoaries in flocks of Common Redpolls. The "Southern" Hoary Redpoll (n nominate subspecies *exilipes*) breeds south to northern Ontario and is the subspecies usually seen in southern Canada and northern USA. However, "Hornemann's" Hoary Redpoll (n nominate *hornemanni*) which was formerly considered a great rarity south of the tundra is now reported more often likely because its ID features are better known. See link #2 below for photos and identification marks of Common and Hoary Redpoll subspecies.

PINE SISKIN: Some will irrupt south because cone crops in the Northeast are generally poor. Siskins were

moving south in mid-September at the Observatoire d'oiseaux de Tadoussac in Quebec. However, some eastern siskins have likely relocated to abundant spruce crops in western Canada. Siskins prefer nyger seeds in silo feeders. See link #4 which discusses siskin irruptions related to climate variability.

EVENING GROSBEEK: The Evening Grosbeak is the world's most spectacular winter finch. Its breeding populations continue to increase in Ontario, Quebec and New Brunswick due to increasing outbreaks of spruce budworm. Watch for them in Algonquin Park, Adirondacks and northern New England. A few are likely at feeders in southern Ontario where they prefer black oil sunflower seeds.

THREE IRRUPTIVE PASSERINES: Movements of these three passerines are often linked to the boreal finches.

BLUE JAY: Expect a much larger than usual flight of jays from mid-September to mid-October along the north shorelines of Lake Ontario and Lake Erie. The acorn, beechnut, hazelnut crops were generally poor but variable in central and southern Ontario. Drought has damaged many seed crops.

RED-BREASTED NUTHATCH: An early southward movement began in early summer and continues as this forecast is posted. This widespread movement is evidence of poor cone crops in the Northeast. It indicates that Purple Finches, White-winged Crossbills and Pine Siskins are on the move too.

BOHEMIAN WAXWING: Very few Bohemians breed east of James Bay in Canada. Most Bohemians will likely stay in northern Ontario and western Canada because native Mountain-ash berry crops are good to bumper (some poor areas) across the boreal forest. In recent winters, however, Bohemians have been coming south regularly every winter possibly due to reliable annual crops of abundant Buckthorn (*Rhamnus*) berries. Watch for Pine Grosbeaks eating their favorite European Mountain-ash berries and small ornamental crabapples.

WHERE TO SEE FINCHES: Algonquin Park is an exciting winter experience about a 3.5 hour drive north of Toronto. Most cone crops are poor (good on White Cedar) in the park so crossbills and siskins will be very scarce or absent. However, feeders at the Visitor Centre (km 43) should attract Common Redpolls (watch for Hoaries), Evening and Pine Grosbeaks. The Visitor Centre and restaurant are open weekends in winter. On winter weekdays, the facility is open, but with limited services (no restaurant, but snacks and drinks are available for purchase). Birders can call ahead to make arrangements to view feeders on weekdays by phoning 613-637-2828. The bookstore has one of the best selections of natural history books anywhere. Be sure to get *Birds of Algonquin Park* (2012) by retired park naturalist Ron Tozer. It is one of the finest regional bird books ever published. The nearby Spruce Bog Trail at km 42.5 and Opeongo Road at km 44.5 are the best spots for finches and other species such as Gray Jay, Boreal Chickadee, Spruce Grouse and Black-backed

Woodpecker.

FINCH INFORMATION LINKS:

[#1. Finch Facts, Seed Crops and Irruptions](#)

[#2. Subspecies of Common and Hoary Redpolls – ID Tips and Photos](#)

[#3. Interview with Ron Pittaway in OFO News 34\(1\):1-3, 2016](#)

[#4. Climatic dipoles drive two principal modes of North American boreal bird irruption](#)

ACKNOWLEDGEMENTS: I thank staff of the Ontario Ministry of Natural Resources and Forestry, and the many birders/naturalists whose tree seed reports allow me to make annual forecasts: Alexandre Anctil (Chibougamau, Quebec), Christian Artuso (Manitoba), Dennis Barry (Durham Region and Kawartha Lakes), Angus Baptiste (Grand lac Victoria, Quebec), Eleanor Beagan (Prince Edward Island), Peter Burke, (Georgian Bay, Ontario), Joan Collins (Adirondacks and northern New York State), Pascal Cote (Observatoire d'oiseaux de Tadoussac, Quebec), Bruce Di Labio (Eastern Ontario), Charity Dobbs (Ontario Tree Seed Plant), Carolle Eady (Dryden, Ontario), Cameron Eckert (Southern Yukon), Dave Elder (Atikokan, Ontario), Bruce Falls (Brodie Club, Toronto), Walter Fisher (Rosetta McClain Gardens Raptor Watch, Toronto), Marcel Gahbauer (Eastern Ontario), Terry Gauthier (PEI), Michel Gosselin (Canadian Museum of Nature), David Govatski (New Hampshire

and Vermont), Leo Heyens (Kenora, Ontario), Tyler Hoar (Southern Ontario), Kris Ito (French River, Ontario), Jean Iron (James Bay and Northeastern Ontario), Hilde Johansen (Chibougamau, Quebec), Gordon Kayahara (Timmins, ON), Dan McAskill (PEI), Bruce Mactavish (St. John's, Newfoundland), David McCorquodale (Cape Breton Island, Nova Scotia), Stacy McNulty (Adirondacks NY), Brian Naylor (Nipissing District, Ontario), Stephen O'Donnell (Parry Sound District), Justin Peter (Algonquin Park, Ontario, Gatineau Park, Quebec), Fred Pinto (Nipissing District, Ontario), Brian Ratcliff (Thunder Bay District ON), Rosamund and Jim Pojar (Central British Columbia), Harvey and Brenda Schmidt (Creighton, Saskatchewan), Michael Runtz, (Algonquin Park), Don Sutherland (Southern James Bay and Nova Scotia), Doug Tate (Northwest Territories), Ron Tozer (Algonquin Park), Declan Troy (Alaska), Mike Turner (Haliburton Highlands, Ontario), Richard Welsman (Rosetta McClain Gardens, Toronto), the late Alan Wormington (Point Pelee, Ontario), Matt Young (New York State). Jean Iron made many helpful comments and hosts the forecast on her website.

Ron Pittaway

Ontario Field Ornithologists

Toronto, Ontario

22 September 2016

Teen Naturalists Canoe Trip
Michael Jaansalu

The final outing of the Kingston Teen Naturalists before the summer break took place on Saturday June 25th, 2016. The purpose of the trip was to go canoeing on Mitchell Creek into Frontenac Park and observe nature on the way. Austin, Aidan, Anne, Dianne, Ronan, and Michael met at the Sydenham Rd. Tim Horton's at 9:00am and headed up to Snug Harbour. Immediately after arrival we encountered a female Map Turtle digging a hole for its eggs in a nearby gravel pile and promptly informed the manager of its presence. This completed, we inspected, loaded, and launched three canoes and set off.

During our trip we checked some Hemlock trees for signs of the Hemlock Woolly Adelgid and found no signs of them. We also spent a large amount of time examining and discussing the plant species we encountered. These included: Red Elder berries, both Swamp and Common Milkweed, Blue Iris, various water lilies, Canadian Pond Weed, and Watershield. We also saw numerous insects such as the Donacia and Whirlygig Beetles, Red Mites, a few Slaty Skimmers (a type of dragonfly), and Bluet Damselflies. Some of the Damselflies were in mating "loops" and it was very interesting to see these arrangements of Damselflies fly around.

Birding was not the primary focus of the trip but we still managed to see a Common Loon with its chick, a Great Blue Heron, Common Grackles, a Blue Jay, and some smaller birds mobbing some sort of hawk. Additionally, we heard a Black-and-White Warbler, Ovenbird, Red-eyed Vireo, and a Common Yellowthroat. Two mammal species were also seen: a chipmunk at the campsite where we stopped for lunch and either a beaver or muskrat shortly after leaving Snug Harbour.

The weather during this excursion was very pleasant. For once it was not cold and raining on a KTN canoe trip! By contrast, the day was clear, calm, and while not particularly humid, very hot. We paddled along Mitchell Creek until we reached a canoe-in campsite in Frontenac Park at which point we stopped for lunch. Some members of the group decided to go for a swim, while others elected to only dip their feet in the water. After returning to Snug Harbour, we returned the canoes and packed up the cars to head home. We returned to Kingston at approximately 3:00, although one car was delayed slightly when it stopped to help a Painted Turtle across the road. I personally enjoyed this trip immensely and I am very glad that my final outing with the Kingston Teen Naturalists went the way it did.

Bird Nerd Bonus
James Barber



1. What is this species?
2. How to differentiate from Common Loon?
3. When is a good time of year to see this species in the Kingston area?
4. What does the scientific name *stellata* refer to with this species?

1. Red-throated Loon 2. Smaller, slender bill, defined white face in non-breeding plumage 3. Late fall and early winter 4. 'star-like' white speckles on back in non-breeding plumage