



The Blue Bill

Quarterly Journal of the Kingston Field Naturalists

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editor@thebluebill.ca

Submissions may be in any format. Equations should be in L^AT_EX. Please provide captions and credit information for photos.

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1 President's Page

by Anthony Kaduck

So here we go, launching into our autumn program in this our 70th year as a nature club. I think the founding members would be rather pleased to see where the KFN is today, with over 500 members, three nature reserves and active programs for adults, teens and juniors. Sadly, most of those founders are no longer with us, but if there is a naturalists' version of Valhalla I am sure they are up there watching over us with pride.

Our VP, Ken Edwards, has lined up a number of great speakers over the next few months, but the one I want to highlight is the November 21st meeting. That will be almost exactly 70 years from the date of our first meeting. We are looking for stories and/or photos of KFN people and activities, especially those from the early days. You can bring these to the September meeting or send them directly to Ken. Check your September newsletter for details.

I don't have any other issues to discuss, so I will leave you with a puzzler. This Green Frog was spotted last week by the Marsh Boardwalk at Presqu'île Provincial Park. It has swallowed something leaving a reddish fringe sticking out of its mouth. Any guesses what it might be?



Figure 1: Green Frog with mystery lunch. (Anthony Kaduck)



Figure 2: Semipalmated Plover, Presqu'île Provincial Park, 24 August 2019. (Anthony Kaduck)



Figure 4: Baird's Sandpiper, Presqu'île Provincial Park, 24 August 2019. (Anthony Kaduck)



Figure 3: Green Heron, Perch River Wildlife Management Area, 14 August 2019. (Anthony Kaduck)

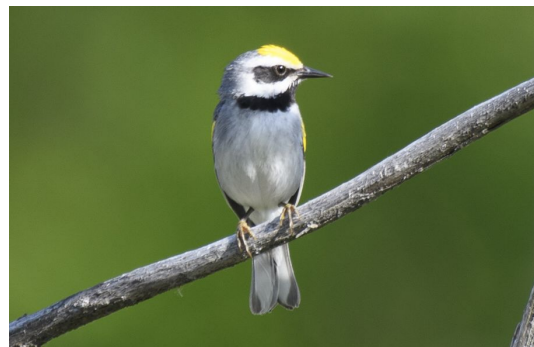


Figure 5: Golden-winged Warbler, Algonquin Provincial Park, 19 June 2019. (Anthony Kaduck)

2 KFN Income Statement

**KINGSTON FIELD NATURALISTS
INCOME STATEMENT
FOR THE YEAR ENDING MARCH 31, 2019**


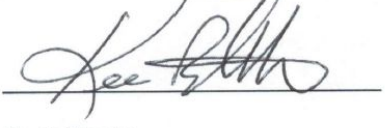
INCOME	
Book Auction	570.00
CFKA Webb Income	951.78
Donations - Habitat Preservation	148,642.05
Donations - General	5,153.76
Grazing Income - Amherst Island	2,500.00
GST Rebate	982.83
Interest Income	1,826.27
May Dinner Meeting	3,555.00
Memberships Junior	940.00
Memberships Other	11,656.97
Other Income	150.00
Sales - Other Merchandise	198.00
Sales - 2008 Books (Net)	44.00
TOTAL INCOME	<u>177,170.66</u>
EXPENSES	
Administration	1,285.02
Awards	351.78
Bank Charges	183.39
Bioblitz Net Expenses	1,028.73
Blue Bill	1,418.83
Conservation Committee	137.46
Donations Out	14,300.00
Insurance	2,075.76
Inventory purchase	499.46
Junior Naturalist Admin	1,156.19
May Dinner Meeting Expenses	3,336.00
Membership Expenses	1,470.53
Property Expenses	4,616.06
Property Purchase	139,900.00
Property Tax	4,038.87
Publicity	868.12
Rent Rooms Junior Naturalists	881.40
Rent Paid (Monthly Meetings)	721.90
Speakers Expenses	832.67
Subscriptions and Memberships	248.00
Taxidermy Expenses	801.47
Web Site	242.18
TOTAL EXPENSES	<u>180,393.82</u>
DEFICIT ON 2018/2019 OPERATIONS	<u>-3,223.16</u>
 Jane Revell	 Kevin Bleeks

Figure 6: KFN Income Statement for the year ending March 31, 2019 (Larry McCurdy)

3 KFN Balance Sheet

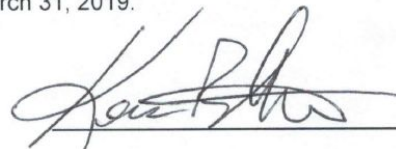
**KINGSTON FIELD NATURALISTS
BALANCE SHEET
FOR THE YEAR ENDING MARCH 31, 2019**

ASSETS		
Bank Account	18,295.02	
BNS Corp. Tiered	4,332.46	
GIC - Can. West (2021)	20,000.00	
GIC - Home Trust (2020)	20,629.00	
GIC - Home Trust (2022)	17,214.00	
GIC - Home Trust (2023)	17,214.00	
TD Bank Coupon	1,485.36	
ScotiaMcLeod Account	0.47	
Equipment	13,677.82	
2008 Book Inventory	3,344.00	
Property (at cost)	<u>260,800.00</u>	
TOTAL ASSETS		376,992.13
LIABILITIES & EQUITY		
Habitat Preservation Fund	7,811.26	
Faith Avis Fund	550.83	
Life Membership Reserve	7,600.00	
Nan Yeomans Young Naturalists Fund	1,487.94	
Property Management Reserve	20,000.00	
ASUS Fund	634.71	
General Equity	<u>338,907.39</u>	
TOTAL LIABILITIES & EQUITY		376,992.13 **
** NOTE		
Total Liabilities & Equity - March 31, 2018	244,195.48	
Deficit on 2018/2019 Operations	-3,223.16	
Transfer to CFKA Endowment Fund	-5,000.00	
Capital Assets added	<u>141,019.81</u>	
Total Liabilities & Equity - March 31, 2019	<u>376,992.13</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, 2019.



Jane Revell



Kevin Bleeks

Figure 7: KFN Balance Sheet for the year ending March 31, 2019 (Larry McCurdy)

4 The Great Canadian BioBlitz of 2019

by Anne Robertson



Figure 8: Activity at BioBlitz Base site. (Gaye Beckwith)

We held our 21st BioBlitz June 14-15th in cooperation with Ontario Power Generation Lennox Generating Station on the OPG property on Bath Road. This property has wetlands, woodlands and old field habitats offering a diversity of plant and animal life. The BioBlitz aims to list as many species of living things as possible in 24 hours. 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 through natural succession. It rained before the Blitz began and after it was over. We were lucky to have some sunshine and comfortable temperatures but the wind was strong, affecting the moth collection station and the spring had been cool delaying development of some species.

This event brought together members, amateurs, experts and professionals in all kinds of species, to spot and identify all they could tally in the 24 hours between 3:00 pm Friday and 3:00 pm Saturday. Information was collected on everything from night time moths to early morning birds and from beautiful dragonflies to minute mosses. About half of the 76 participants were KFN members. There were a number of OPG staff and some neighbours as well as a few children. Recorders came from as far as Ottawa and Toronto and represented organisations including Queen's University, Ecological Services, Canadian Museum of Nature and Nature Conservancy Canada.

Visitors could learn about the biodiversity of the site by participating in Guided Walks to learn about a particular group of plants or animals. One could join a walk to learn about Early Morning Birds or Snakes or Lichens and Mosses. Walks also included the popular Geology of the site. Telescopes were set up to view the night sky as well as the Peregrine nest and nestlings on the building, Osprey nest by the road and Great Blue Heron nests in the wetlands.

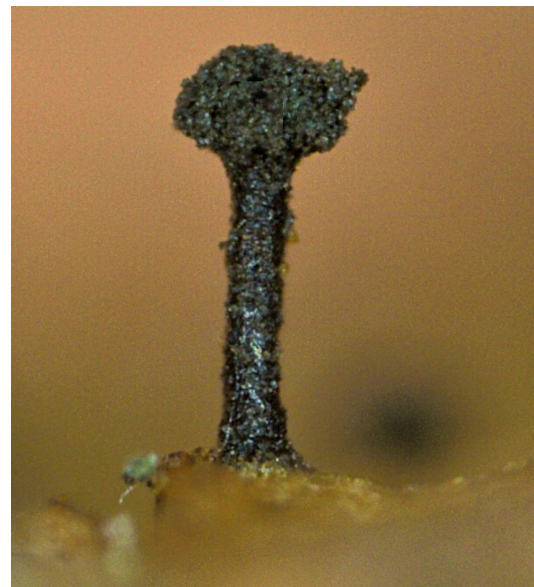


Figure 9: Fruiting Body (apothecia) of new fungus lichen ally *Chaenothecopsis perforata*. Just 0.5 mm tall. (Troy McMullin)

A special sighting took place before the Friday 3:00 pm kickoff and so does not count on the species list: three people spotted a fisher at the Base. Perhaps this was the fellow who raided our various invertebrate traps! Another coincidence was the return of Black Terns to this location just this week, after about 15 years of their absence. Perhaps the most exciting find was *Chaenothecopsis perforata* – a fungus that is a lichen ally. This is only the second publication about this species in Canada – the first was in April 2019! A picture of an apothecia (fruiting body) is shown. The apothecia is just 0.5 mm tall! This species is found on the exudate of sumac species. The smallest animal species must have been the *Testaceans* (amoeba that make tests) starting at 0.05 mm which were found in a water sample.

Literally hundreds of plants were observed, identified and listed. Well over 230 species of flowering plants – trees, shrubs and herbs (including over 25 species of grasses and sedges), found in different habitats were recorded. Spore bearing plants – lichens (37) and mosses and liverworts (47) were added to the tally with the knowledge of professionals and other experts. Perhaps this was the year of the “lower” plants. 33 species of Fungi were also recorded.

In total 322 plants and 33 fungi were listed.



Figure 10: Eyelash Fungus. (Janet Elliott)

Vertebrate animal observations that were special included a Great Egret flying and a Least Bittern heard (a threatened species). Over 80 species

of bird were recorded. Two species of bat were recorded – Big Brown and Eastern Red-haired Bat which is encouraging as bat numbers are diminishing in general. Four species of amphibian and four species of snake and two turtle species (both species of concern) were seen. Few fish were found – Fathead Minnows were prominent. Trail cams in various locations recorded species as diverse as Wild Turkey and Coyote.

In total 114 vertebrate species were recorded.



Figure 11: Brooks Gee checking bait traps. (Janet Elliott)

Invertebrate species (affected by the cool season and windy weather) included fewer than usual Butterflies (14) and Moths (50), and Dragon and Damselflies (20). Water invertebrates were dip netted or caught in minnow traps and released. Various flies, beetles and wasps were also observed. A water sample revealed many minute species.

In total 160 invertebrates were recorded.



Figure 12: Furrow Orbweaver. (Damon Gee)

Many thanks to all our volunteers including hike leaders, list coordinators and many more and especially to all OPG volunteers for hosting us and supplying shuttle, BBQ, printing, site preparation and much more.

Our annual Bioblitz was very successful and much enjoyed by the participants on this OPG property. The biodiversity is interesting with some invasive

species. In total 629 species were recorded. We hope future generations will also have the thrill of finding as much variety of life in this area in one day.

The following results are listed in the order: Vertebrates, Invertebrates, Flowering Plants, Spore bearing plants and Fungi.



Figure 13: Checking contents of bait traps with Mary Alice Snetsinger (back to you). (Janet Elliott)



Figure 14: Debliek family examine pond creatures with Shirley French (R). (Steve Debliek)



Figure 15: Guided dragonfly hike with Carol Seymour (second from right). (Gaye Beckwith)



Figure 16: Milk Snakes with Kenny Ruelland (red hood) guiding hike. (Janet Elliott)



Figure 17: American Bittern. (Kathy Webb)

4.1 Vertebrates

LIST OF MAMMALS

VESPERTILIONIDAE	BATS
<i>Eptesicus fuscus fuscus</i>	Big Brown Bat
<i>Lasiurus borealis borealis</i>	Eastern Red Bat

LEPORIDAE	RABBITS AND HARES
<i>Sylvilagus floridanus mearnsii</i>	Eastern Cottontail

SCIURIDAE	SQUIRRELS
<i>Tamiasciurus hudsonicus</i>	Red Squirrel
<i>Tamias striatus lysteri</i>	Chipmunk

CASTORIDAE	BEAVERS
<i>Castor canadensis</i>	Beaver

MURIDAE	MICE, RATS AND VOLES
<i>Microtus pennsylvanicus pennsylvanicus</i>	Meadow Vole
<i>Ondatra zibethicus zibethicus</i>	Muskrat

CANIDAE	DOGS
<i>Canis latrans thamnus</i>	Coyote
<i>Vulpes vulpes</i>	Red Fox

MUSTELIDAE	WEASELS
<i>Martes pennanti</i>	Fisher
<i>Mephitis mephitis nigra</i>	Striped Skunk
<i>Mustela vison vison</i>	Mink

PROCYONIDAE	RACCOONS
<i>Procyon lotor lotor</i>	Raccoon

CERVIDAE	DEER
<i>Odocoileus virginianus borealis</i>	White-tailed Deer

LIST OF BIRDS

ANATIDAE	SWANS, GEESE, AND DUCKS
<i>Branta canadensis</i>	Canada Goose
<i>Cygnus olor</i>	Mute Swan
<i>Aix sponsa</i>	Wood Duck
<i>Spatula discors</i>	Blue-winged Teal
<i>Mareca strepera</i>	Gadwall

continued ...

Vertebrates continued ...

Anas platyrhynchos Mallard

PHASIANIDAE TURKEYS AND GROUSES

Bonasa umbellus Ruffed Grouse

Meleagris gallopavo Wild Turkey

PODICIPEDIDAE GREBES

Podilymbus podiceps Pied-billed Grebe

COLUMBIDAE DOVES

Zenaida macroura Mourning Dove

APODIDAE SWIFTS

Chaetura pelagica Chimney Swift

TROCHILIDAE HUMMINGBIRDS

Archilochus colubris Ruby-throated Hummingbird

RALLIDAE RAILS, GALLINULES AND COOTS

Rallus limicola Virginia Rail

Gallinula galeata Common Gallinule

CHARADRIIDAE PLOVERS AND TURNSTONES

Charadrius vociferous Killdeer

SCOLOPACIDAE WOODCOCK, SNIPE, SANDPIPERS

Gallinago delicata Wilson's Snipe

Actitis macularius Spotted Sandpiper

LARIDAE GULLS AND TERNs

Larus delawarensis Ring-billed Gull

Hydroprogne caspia Caspian Tern

Chlidonias niger Black Tern

GAVIIDAE LOONS

Gavia immer Common Loon

PHALACROCORACIDAE CORMORANTS

Phalacrocorax auritus Double-crested Cormorant

ARDEIDAE HERONS AND BITTERNs

Botaurus lentiginosus American Bittern

Ardea herodias Great Blue Heron

Ardea alba Great Egret

continued ...

Vertebrates continued ...

Butorides virescens Green Heron

CATHARTIDAE VULTURES

Cathartes aura Turkey Vulture

ACCIPITRIDAE HAWKS AND EAGLES

Pandion haliaetus Osprey
Haliaeetus leucocephalus Bald Eagle
Buteo jamaicensis Red-tailed Hawk

ALCEDINIDAE KINGFISHERS

Megaceryle alcyon Belted Kingfisher

PICIDAE WOODPECKERS

Melanerpes carolinus Red-bellied Woodpecker
Picoides pubescens Downy Woodpecker
Picoides villosus Hairy Woodpecker
Dryocopus pileatus Pileated Woodpecker
Colaptes auratus Northern Flicker

FALCONIDAE FALCONS

Falco sparverius American Kestrel
Falco peregrinus Peregrine Falcon

TYRANNIDAE FLYCATCHERS

Contopus virens Eastern Wood-pewee
Empidonax traillii Willow Flycatcher
Empidonax minimus Least Flycatcher
Myiarchus crinitus Great Crested Flycatcher
Tyrannus tyrannus Eastern Kingbird

VIREONIDAE VIREOS

Vireo gilvus 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

Stelgidopteryx serripennis Northern Rough-winged Swallow
Progne subis Purple Martin
Tachycineta bicolor Tree Swallow

continued ...

Vertebrates continued ...

<i>Riparia riparia</i>	Bank Swallow
<i>Hirundo rustica</i>	Barn Swallow
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow

PARIDAE CHICKADEES AND ALLIES

<i>Poecile atricapillus</i>	Black-capped Chickadee
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SITTIDAE NUTHATCHES

<i>Sitta carolinensis</i>	White-breasted Nuthatch
---------------------------	-------------------------

TROGLODYTIDAE WRENS

<i>Troglodytes aedon</i>	House Wren
<i>Cistothorus palustris</i>	Marsh Wren

TURDIDAE THRUSHES AND BLUEBIRDS

<i>Hylocichla mustelina</i>	Wood Thrush
<i>Turdus migratorius</i>	American Robin

MIMIDAE MIMICS

<i>Dumetella carolinensis</i>	Gray Catbird
<i>Toxostoma rufum</i>	Brown Thrasher

STURNIDAE STARLINGS

<i>Sturnus vulgaris</i>	European Starling
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BOMBYCILLIDAE WAXWINGS

<i>Bombycilla cedrorum</i>	Cedar Waxwing
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FRINGILLIDAE FINCHES

<i>Spinus tristis</i>	American Goldfinch
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EMBERIZIDAE SPARROWS AND BUNTINGS

<i>Ammodramus savannarum</i>	Grasshopper Sparrow
<i>Spizella passerina</i>	Chipping Sparrow
<i>Spizella pusilla</i>	Field Sparrow
<i>Junco hyemalis</i>	Dark-eyed Junco
<i>Passerculus sandwichensis</i>	Savannah Sparrow
<i>Melospiza melodia</i>	Song Sparrow
<i>Melospiza georgiana</i>	Swamp Sparrow
<i>Pipilo erythrophthalmus</i>	Eastern Towhee

ICTERIDAE MEADOWLARKS AND BLACKBIRDS

<i>Dolichonyx oryzivorus</i>	Bobolink
<i>Sturnella magna</i>	Eastern Meadowlark

continued ...

Vertebrates continued ...

<i>Icterus spurius</i>	Orchard Oriole
<i>Icterus galbula</i>	Baltimore Oriole
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Molothrus ater</i>	Brown-headed Cowbird
<i>Quiscalus quiscula</i>	Common Grackle

PARULIDAE WOOD WARBLERS

<i>Geothlypis trichas</i>	Common Yellowthroat
<i>Setophaga ruticilla</i>	American Redstart
<i>Setophaga petechia</i>	Yellow Warbler
<i>Setophaga pensylvanica</i>	Chestnut-sided Warbler

CARDINALIDAE CARDINALS AND ALLIES

<i>Piranga olivacea</i>	Scarlet Tanager
<i>Cardinalis cardinalis</i>	Northern Cardinal
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak

PASSERIDAE OLD WORLD SPARROWS

<i>Passer domesticus</i>	House Sparrow
--------------------------	---------------

LIST OF REPTILES AND AMPHIBIANS**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>Lampropeltis triangulum</i>	Eastern Milk Snake
<i>Nerodia sipedon</i>	Northern Water Snake
<i>Storeria dekayi</i>	Brown Snake
<i>Thamnophis sirtalis</i>	Eastern Garter Snake

BUFONIDAE TOADS

<i>Bufo americanus</i>	American Toad
------------------------	---------------

HYLIDAE TREEFROGS

<i>Hyla versicolor</i>	Gray Treefrog
------------------------	---------------

RANIDAE TRUE FROGS

<i>Rana catesbiana</i>	Bull Frog
<i>Rana pipiens</i>	Northern Leopard Frog

continued ...

Vertebrates continued ...

LIST OF FISH**CYPRINIDAE***Pimephales promelas* Fathead Minnow**4.2 Invertebrates****INSECTA**

Ephemeroptera **Mayflies**
Mayfly sp. Mayfly (nymph)

Zygoptera **Damselflies**
Argia fumipennis Violet Dancer
Coenagrion resolutum Taiga Bluet
Enallagma boreale Boreal Bluet
Enallagma civile Familiar Bluet
Ischnura posita Fragile Forktail
Ischnura verticalis Eastern Forktail
Lestes inequalis Elegant Spreadwing
Nehalennia irene Sedge Sprite
 Damselfly Nymph

Anisoptera **Dragonflies**
 Dragonfly Nymph

Aeshnidae **Darners**
Anax junius Common Green Darner

Libellulidae **Skimmers**
Erythemis simplicicollis Eastern Pondhawk
Ladona julia Chalk-fronted Corporal
Leucorrhina hudsonica Hudsonian Whiteface
Leucorrhinia intacta Dot-tailed Whiteface
Libellula pulchella Twelve-spotted Skimmer
Libellula quadrimaculata Four-spotted Skimmer
Pachydiplax longipennis Blue Dasher
Plathemis lydia Common Whitetail
Tramea lacerata Black Saddlebags

Crickets
Gryllus veletis Spring Field Cricket

continued ...

Invertebrates continued ...

Hemiptera	True Bugs
<i>Cicadellidae</i> family	Leaf Hoppers
<i>Corixidae</i>	Water Boatman
<i>Gerris</i> sp.	Water Strider
<i>Notonecta</i> sp.	Backswimmer
Sub group Megaloptera	Fishflies
<i>Chauliodes rasticornis</i>	Spring Fishfly
Coleoptera	Beetles and Weevils
<i>Dytiscidae</i> family	Predacious Diving Beetle sp 1
<i>Nicrophorus orbicollis</i>	Roundneck Carrion Beetle
Trichoptera	Caddisflies
<i>Banksiola crotchi</i>	Caddisfly
<i>Phryganeidae</i> family	Giant Casemaker Caddisfly
<i>Triacnoides</i> (genus)	Caddisfly
Species unknown	Caddisfly
<i>Trichoptera</i> sp 1	Caddisfly
<i>Trichoptera</i> sp 2	Caddisfly
<i>Trichoptera</i> sp 3	Caddisfly
<i>Trichoptera</i> sp 4	Caddisfly
<i>Trichoptera</i> sp 5	Caddisfly
Lepidoptera	Butterflies, Moths and Skippers
<i>Carterocephalus palaemon</i>	Arctic Skipper
<i>Celastrina lucia</i>	Spring Azure
<i>Coenonympha tullia</i>	Common Ringlet
<i>Colias philodice</i>	Clouded Sulphur
<i>Cupido comyntas</i>	Eastern Tailed Blue
<i>Danaus plexippus</i>	Monarch
<i>Erynnis baptisidae</i>	Wild Indigo Duskywing
<i>Erynnis</i>	Duskywing Sp.
<i>Glaucopsyche lygdamus coup</i>	Silvery Blue
<i>Papilio canadensis</i>	Canadian Tiger Swallowtail
<i>Papilio polyxenes asterous</i>	Black Swallowtail
<i>Phyciodes cocyta</i>	Northern Crescent
<i>Phyciodes tharos</i>	Pearl Crescent
<i>Vanessa atalanta</i>	Red Admiral

Moths Arranged By Hodges Number

<i>Olethreutes bipartina</i> prob 2848	
<i>Scoparia biplagiata</i> 4716	Double-striped Scoparia Moth
	continued ...

Invertebrates continued ...

<i>Elophila oblitalis</i> 4755	Waterlily Leafcutter Moth
<i>Synclita oblitalis</i> 4755	Waterlily Leafcutter
<i>Parapoynx allionealis</i> 4764	Watermilfoil Leafcutter Moth
<i>Evergestis pallidata</i> 4897	Purple-backed Cabageworm
<i>Perispasta caeculalis</i> 4951	Titian Peale's Moth
<i>Udea rubigalis</i> 5079	Celery Leaftier Moth
<i>Palpita magniferalis</i> 5226	Splendid Palpita Snout Moth
<i>Immyria nigrovittella</i> 5766	Black-banded Immyrila
<i>Sciota</i> sp	Knot-horn Moth
<i>Scotia</i> sp 5794	Leafroller sp
<i>Anavitrinella pampinaria</i> 6590	Common Grey
<i>Cabera erythemaria</i> 6677	Yellow-dusted Cream Motjh
<i>Cabera variolaria</i> 6678	Vestal Moth
<i>Xanthotype</i> sp. <i>sospeta</i> 6743	Crocus Geometer
<i>Cabera variola</i> 6678	Vestal Moth
<i>Xanthotype</i> sp 6740	Crocus Geometer Moths
<i>Pero honestaria</i> 6753	Honest Pero Moth
<i>Pero morrisonaria</i> 6755	Morrison's Pero Moth
<i>Tetracis cachexiata</i> 6964	White Slant-line
<i>Nemoria mimosaria</i> 7048	White-fringed Emerald
<i>Pasiphila rectangulata</i> 7625	Green Pug
<i>Dyspteris abortivaria</i> 7648	Badwing
<i>Phyllodesma ameicana</i> 7687	Lappet Moth
<i>Malacasoma disstria</i> 7698	Forest Tent Caterpillar Moth (larva)
<i>Notodontidae</i> 7895	Prominent Moths
<i>Natada gibbosa</i> 7915	White-dotted Prominent
<i>Heterocampinae</i> 7994	
<i>Schizura unicornis</i> 8007	Unicorn Prominent
<i>Virbia aurantiaca</i> 8121	Orange Virbia
<i>Apantesis phalerata</i> 8169	Harnessed Tiger Moth
<i>Lophocampa caryae</i> 8211	Hickory Tussock Moth
<i>Phalaenophana pyramusalis</i> 8338	Dark-banded Owlet
<i>Palthis angulalis</i> 8397	Dark-spotted Palthis
<i>Zale lunata</i> prob 8689	
<i>Zale</i> (family <i>Erebidae</i>)8689	
<i>Noctuinae</i> 8880	Cutworms and Dart Moths
<i>Pseudeustrotia carneola</i> 9053	Pink-barred Pseudeustrotia(Lithecodia)
<i>Acronita insularis</i> 9280	Henry's Marsh Moth
<i>Apamea</i> sp 09300	
<i>Alypia octomaculata</i> Hodges#9314	Eight-spotted Forester
<i>Apamea unanimitis</i> 9362.2	Small Clouded Brindle
<i>Bellura oblique</i> 9525	Cattail Borer
<i>Proxenus miranda</i> 9647	Miranda Moth
<i>Balsa tristrigella</i> 9663	Three-lined Balsa Moth
	continued ...

Invertebrates continued ...

<i>Melanchra adjuncta</i> 10292	Hitched Arches
<i>Orthodes cynica</i> 10587	Cynical Quaker
<i>Xestia dolosa</i> 10942.1	Greater Black-letter Dart
<i>Xestia</i> sp. 10944	
Diptera True Flies	
<i>Anthomyiidae</i> family	Root Maggot Fly
<i>Culicidae</i> family	Mosquito sp.
<i>Ceratopogonidae</i> family	Biting Midge larva
<i>Chaoboridae</i> family <i>Chaoborus</i> sp.	Phantom Midge larva
<i>Chironomidae</i> - Tribe <i>Chironomini</i>	Midge
<i>Dolichopus</i> sp.	Long-legged Fly
<i>Calliphoridae</i> sp.	Blow Fly
<i>Muscidae</i> sp.	Muscid Fly
<i>Odontomyia cincta</i>	Stratiomyidae - Soldier Flies
	Aquatic Soldier Fly larva
<i>Scarophagidae</i> sp.	Flesh Fly
<i>Sciomyzidae</i> sp.	Marsh Fly
<i>Toxomerus geminatus</i>	Syrphid Fly
<i>Toxomerus marginatus</i>	Syrphid Fly
<i>Eristalis</i> sp.	Syrphid Fly
<i>Parhelophilus</i>	Syrphid Fly
<i>Platyceirus</i> sp.	Syrphid Fly
<i>Tabanus</i> sp 2	Deer Fly
<i>Chrysops</i> sp.	Deer Fly
<i>Tachinidae</i> family	Parasitic Fly
<i>Tipulidae</i> family	Large Crane Fly (+ larva)
<i>Tipulidae</i> sp 1	Crane Fly
<i>Limoniidae</i> family	Crane Fly
Hymenoptera Ants, Bees, Sawflies and Wasps	
<i>Camponotus</i> sp.	Carpenter Ants
Genus <i>Andrena</i>	Mining Bees
<i>Nomadinae</i> –Genus <i>Nomada</i>	Nomad Bees
<i>Bombus imaptiens</i>	Common Eastern Bumblebee
Subgenus <i>Pyrobombus</i>	Bumble Bee
<i>Halictus ligatus</i>	Sweat Bee
Subgenus <i>Lasioglossum</i>	Sweat Bee
<i>Hylaeus modestus modestus</i>	Modest Masked Bee
<i>Tenthredinidae</i>	Common Sawflies
Subfamily <i>Crabroninae</i>	Square-headed Wasps

OTHER INVERTEBRATES

continued ...

Invertebrates continued ...

Testaceans Arcellinida Arcell testate group

<i>Arcella sp.</i>	Arcella
<i>Diffflugia pyriformis</i>	Diffflugia
<i>Unknown sp. 4 small spines</i>	Testate Amoeba

Diplapoda Millipedes

<i>Narceus americanus</i>	Millipede
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Araneae Spiders

<i>Larinioides cornutus</i>	Furrow Orbweaver
<i>Araneus sp.</i>	Orb Weaver sp.
<i>Photinus consimilis</i>	Firefly
<i>Tetragnatha sp.</i>	Green Long-jawed Orb Weaver
<i>Phalangiidae family</i>	Harvestman sp.
<i>Salticus scenicus</i>	Zebra Jumper

Amphipoda Scud sp

<i>Gammaridae family</i>	Scud sp
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Cladocera Water Fleas

<i>Ceriodaphnia dubia</i>
<i>Chydorus sphaericus</i>
<i>Daphnia mendotae</i>
<i>Simocephalus mucronata</i>
<i>Simocephalus serrulatus</i>

Amphipoda Malacostracan Crustaceans

<i>Gammaridae family</i>	Scud
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Copepoda

<i>Diaptomidae family</i>	Calanoid species
<i>Cyclopoid copepods</i>	Cyclopoid sp.
<i>Ostracod sp.1</i>	Seed Shrimp, Rothwell Lake
<i>Ostracod sp 2</i>	Seed shrimp, vernal pool

Phylum Rotifera Wheel animals

<i>Keratella cochlearis</i>
<i>Trichocerca pusilla</i>

Gastropoda Snails

<i>Cepea sp.</i>	Grove snail
<i>Hydrobiidae family</i>	Mud Snail (cone shell & operculum)
<i>Planorbidae family</i>	Planorbid Snail

continued ...

Invertebrates continued ...

Hirudnea	Leeches
<i>Haemopsis sp</i>	Horse Leech
<i>Oligochaete sp</i>	Aquatic Segmented Worm

Phylum Nematoda	Nematodes
<i>Nematode</i>	Roundworm

4.3 Vascular Plants

EQUISETACEAE	HORSETAIL FAMILY
<i>Equisetum arvense</i>	Field (Common) Horsetail
<i>Equisetum palustre</i>	Marsh Horsetail
<i>Equisetum pratense</i>	Meadow Horsetail
POLYPODIACEAE	FERN FAMILY
<i>Athyrium filix-femina</i>	Lady Fern
<i>Dryopteris carthusiana</i>	Spinulose Wood Fern
<i>Dryopteris cristata</i>	Crested Woodfern
<i>Dryopteris intermedia</i>	Evergreen Wood Fern
<i>Onoclea sensibilis</i>	Sensitive Fern
<i>Polystichum acrostichoides</i>	Christmas Fern
<i>Pteridium aquilinum</i>	Bracken Fern
<i>Thelypteris palustris</i>	Marsh Fern
PINACEAE	PINE FAMILY
<i>Picea glauca</i>	White Spruce
<i>Pinus strobus</i>	White Pine
CUPRESSACEAE	CYPRESS FAMILY
<i>Juniperus communis</i>	Ground 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
ALISMATACEAE	WATER-PLANTAIN FAMILY
<i>Alisma triviale</i>	Northern Water-plantain
HYDROCHARITACEAE	FROG-BIT FAMILY
<i>Hydrocharis morsus-ranae*</i>	European Frog-bit

continued ...

Vascular Plants continued ...

GRAMINEAE	GRASS FAMILY
<i>Agrostis gigantea*</i>	Redtop (Black Bentgrass)
<i>Alopecurus aequalis</i>	Short-awn Foxtail
<i>Alopecurus pratensis</i>	Meadow Foxtail
<i>Bromus inermis*</i>	Awnless Brome
<i>Calamagrostis canadensis</i>	Canada Blue-joint
<i>Cinna latifolia</i>	Slender Wood Reedgrass
<i>Dactylis glomerata*</i>	Orchard Grass
<i>Echinochloa crus-galli*</i>	Barnyard Grass
<i>Festuca rubra</i>	Red Fescue
<i>Glyceria borealis</i>	Small Floating (Northern) Manna Grass
<i>Glyceria striata</i>	Fowl Manna Grass
<i>Phalaris arundinacea</i>	Reed Canary Grass
<i>Phleum pratense*</i>	Meadow Timothy
<i>Phragmites australis</i>	Common Reed Grass
<i>Poa palustris</i>	Fowl Bluegrass (Meadow Grass)
<i>Poa pratensis</i>	Kentucky Blue-grass
<i>Setaria viridis</i>	Green Bristle-grass
CYPERACEAE	SEDGE FAMILY
<i>Carex bebbii</i>	Bebb's Sedge
<i>Carex bromoides</i>	Brome-like Sedge
<i>Carex brunescens</i>	Brownish Sedge
<i>Carex diandra</i>	Lesser Panicked Sedge
<i>Carex gracillima</i>	Graceful Sedge
<i>Carex lacustris</i>	Lake-bank Sedge
<i>Carex leptalea</i>	Bristly-stalk Sedge
<i>Carex normalis</i>	Sedge
<i>Carex pennsylvanica</i>	Pennsylvania Sedge
<i>Carex rosea</i>	Rosy Sedge
<i>Carex sp</i>	Carex sp
<i>Carex stipata</i>	Stalk-grain (Stipate) Sedge
<i>Carex tribuloides</i>	Blunt Broom Sedge
<i>Eleocharis sp.</i>	Rush sp
<i>Schoenoplectus pungens</i>	Three-square Bulrush
<i>Scirpus atrovirens</i>	Dark-green Bulrush
ARACEAE	ARUM FAMILY
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit
LEMNACEAE	DUCKWEED FAMILY
<i>Lemna minor</i>	Lesser (Common) Duckweed

continued ...

Vascular Plants continued ...

Lemna trisulca Star Duckweed

IRIDACEAE IRIS FAMILY

Iris versicolor Blue Flag

ORCHIDACEAE ORCHID FAMILY

*Epipactis helleborine** Helleborine

SALICACEAE WILLOW FAMILY

Populus deltoides Eastern Cottonwood

Populus tremuloides Aspen Poplar (Trembling Aspen)

Populus sp. Poplar

Populus x smithii Hybrid Aspen

Salix amygdaloides Peach-leaved Willow

Salix bebbiana Bebb's (Beaked) Willow

Salix discolor Pussy Willow

Salix petiolaris Meadow (Slender) Willow

Salix sp. Purple (Basket) Willow

JUGLANDACEAE WALNUT FAMILY

Carya cordiformis Bitternut Hickory

Carya ovata Shagbark Hickory

BETULACEAE BIRCH FAMILY

Alnus incana Speckled Alder

Betula alleghaniensis Yellow Birch

Betula papyrifera White Birch

Carpinus caroliniana Blue Beech (American Hornbeam)

Ostrya virginiana Hop-Hornbeam

FAGACEAE BEECH FAMILY

Fagus grandifolia American Beech

Quercus alba White Oak

Quercus rubra Red Oak

Quercus macrocarpa Bur Oak

ULMACEAE ELM FAMILY

Ulmus rubra Red (Slippery) Elm

Ulmus americana White Elm

URTICACEAE NETTLE FAMILY

*Urtica dioica** Stinging Nettle

Urtica gracilis Slender Nettle

continued ...

Vascular Plants continued ...

POLYGONACEAE	BUCKWHEAT FAMILY
<i>Polygonum persicaria</i>	Lady's Thumb
<i>Rumex crispus*</i>	Curled Dock
<i>Rumex verticillatus</i>	Water (Swamp) Dock
CARYOPHYLLACEAE	PINK FAMILY
<i>Arenaria laterifolia</i>	Blunt-leaved (Grove) Sandwort
<i>Arenaria serpyllifolia</i>	Thyme-leaved Sandwort
<i>Cerastium fontanum</i>	Mouse-eared Chickweed
<i>Silene vulgaris</i>	Bladder Champion (Maiden's Tears)
<i>Stellaria media</i>	Common Chickweed (Starwort)
RANUNCULACEAE	CROWFOOT FAMILY
<i>Anemone canadensis</i>	Canada Anemone
<i>Hepatica acutiloba</i>	Sharp-lobed Hepatica
<i>Ranunculus abortivus</i>	Kidney-leaved (Small-flowered) Buttercup
<i>Ranunculus acris*</i>	Tall Buttercup
<i>ranunculus longiistrostris</i>	Eastern White Water-crowfoot
<i>Ranunculus recurvatus</i>	Hooked Buttercup (Crowfoot)
<i>ranunculus repens</i>	Creeping Buttercup
BERBERIDACEAE	BARBERRY FAMILY
<i>Podophyllum peltatum</i>	Mayapple
CRUCIFERAE	MUSTARD FAMILY
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Barbarea vulgaris*</i>	Winter Cress (Yellow Rocket)
<i>Capsella bursa-pastoris*</i>	Shepherd's Purse
<i>Erysimum cheiranthodes*</i>	Wormseed Mustard
<i>Thlaspi arvense*</i>	Field Penny-cress
GROSSULARIACEAE	GOOSEBERRY FAMILY
<i>Ribes americanum</i>	Black Currant
<i>Ribes cynosbati</i>	Prickly Gooseberry
<i>Ribes hirtellum</i>	Wild Gooseberry (Smooth Gooseberry)
<i>Ribes triste</i>	Swamp Red Currant
ROSACEAE	ROSE FAMILY
<i>Agrimonia gryposepala</i>	Agrimony
<i>Fragaria vesca</i>	Wood Strawberry
<i>Fragaria virginiana</i>	Common (Wild) Strawberry
<i>Geum canadense</i>	White Avens

continued ...

Vascular Plants continued ...

<i>Geum</i>	Avens sp
<i>Malus pumila</i> *	Domestic Apple
<i>Potentilla arguta</i>	Tall Cinquefoil
<i>Potentilla recta</i> *	Sulphur Cinquefoil
<i>Potentilla intermedia</i>	Downy Cinquefoil
<i>Prunus serotina</i>	Black Cherry
<i>Prunus virginiana</i>	Choke Cherry
<i>Rosa acicularis</i>	Prickly Rose
<i>Rosa eglanteria</i>	Sweet-briar
<i>Rosa palustris</i>	Swamp Rose
<i>Rubus allegheniensis</i>	Common Blackberry
<i>Rubus idaeus</i>	Red Raspberry
<i>Rubus hispidus</i>	Swamp Dewberry
<i>Rubus occidentalis</i>	Black Raspberry
<i>Rubus odoratus</i>	Purple Flowering Raspberry
<i>Rubus pubescens</i>	Dwarf Raspberry
<i>Spiraea alba</i>	Narrow-leaved Meadowsweet

FABACEAE BEAN FAMILY

<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 (Tufted) Vetch
<i>Vicia sativa</i>	Common Vetch
<i>Vicia sp.</i>	Vetch sp

GERANIACEAE GERANIUM FAMILY

<i>Geranium robertianum</i>	Herb Robert
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OXALIDACEAE WOOD-SORREL FAMILY

<i>Oxalis montana</i>	Common Yellow Wood-sorrel
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RUTACEAE RUE FAMILY

<i>Zanthoxylum americanum</i>	Northern Prickly Ash
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ANACARDIACEAE CASHEW FAMILY

<i>Rhus typhina</i>	Staghorn Sumac
<i>Rhus glabra</i>	Smooth Sumac

continued ...

Vascular Plants continued ...

Toxicodendron radicans Eastern Poison Ivy

CELASTRACEAE STAFF-TREE FAMILY

Celastrus scandens Climbing Bittersweet

ACERACEAE MAPLE FAMILY

Acer negundo Manitoba Maple

Acer nigrum Black Maple

Acer rubrum Red Maple

Acer saccharinum Silver Maple

Acer saccharum Sugar Maple

BALSAMINACEAE TOUCH-ME-NOT FAMILY

Impatiens capensis Spotted Jewel-weed

RHAMNACEAE BUCKTHORN FAMILY

*Rhamnus cathartica** European Buckthorn

VITACEAE GRAPE FAMILY

Parthenocissus vitacea Virginia Creeper

Vitis riparia Riverbank Grape

TILIACEAE LINDEN FAMILY

Tilia americana Basswood

HYPERICACEAE ST. JOHN'S-WORT FAMILY

*Hypericum perforatum** Common St. John's-wort

VIOLACEAE VIOLET FAMILY

Viola sp. A Violet

LYTHRACEAE LOOSESTRIFE FAMILY

*Lythrum salicaria** Purple Loosestrife

ONAGRACEAE EVENING-PRIMROSE FAMILY

Circaea alpina Alpine Enchanter's Nightshade

Epilobium coloratum Purpleleaf Willowherb

Epilobium palustre Swamp Willow-herb

Oenothera biennis Common Evening-primrose

HALORAGACEAE WATER-MILFOIL FAMILY

Myriophyllum exalbescens Northern Water-milfoil

continued ...

Vascular Plants continued ...

UMBELLIFERAE	PARSLEY FAMILY
<i>Cicuta bulbifera</i>	Bulb-bearing Water Hemlock
<i>Daucus carota</i> *	Wild Carrot (Queen Anne's Lace)
<i>Pastinaca sativa</i>	Wild Parsnip
<i>Sanicula odorata</i>	Cluster Sanicle
<i>Sium suave</i>	Water Parsnip
CORNACEAE	DOGWOOD FAMILY
<i>Cornus obliqua</i>	Silky Dogwood
<i>Cornus racemosa</i>	Grey Dogwood
<i>Cornus sericea</i>	Red-osier Dogwood
ERICACEAE	HEATH FAMILY
<i>Vaccinium corymbosum</i>	High-Bush Blueberry
OLEACEAE	OLIVE FAMILY
<i>Fraxinus americana</i>	White Ash
<i>Fraxinus nigra</i>	Black Ash
<i>Fraxinus pennsylvanica</i>	Red (Green) Ash
APOCYNACEAE	DOGBANE FAMILY
<i>Apocynum cannabinum</i>	Indian Hemp
ASCLEPIDACEAE	MILKWEED FAMILY
<i>Asclepias incarnata</i>	Swamp Milkweed
<i>Asclepias syriaca</i>	Common Milkweed
<i>Vincetoxicum rossicum</i>	European (Pale) Swallow-wort
POLEMONIACEAE	PHLOX FAMILY
<i>Phlox divaricata</i>	Blue Phlox
HYDROPHYLLACEAE	WATERLEAF FAMILY
<i>Hydrophyllum virginianum</i>	Virginia Waterleaf
BORAGINACEAE	BORAGE FAMILY
<i>Echium vulgare</i> *	Viper's Bugloss (Blue-weed)
<i>Lithospermum officinale</i> *	(European) Gromwell
<i>Myosotis laxa</i>	Smaller Forget-me-not
VERBENACEAE	VERVAIN FAMILY
<i>Verbena hastata</i>	Blue Vervain
LABIATAE	MINT FAMILY

continued ...

Vascular Plants continued ...

<i>Leonurus cardiaca</i> *	Motherwort
<i>Lycopus americanus</i>	American (Cut-leaved) Water-horehound
<i>Mentha arvensis</i>	Field (Corn) Mint
SOLANAEAE	NIGHTSHADE FAMILY
<i>Solanum dulcamara</i> *	Bittersweet (Climbing) Nightshade
SCROPHULARIACEAE	FIGWORT FAMILY
<i>Chaenorhinum minus</i> *	Dwarf Snapdragon
<i>Linaria vulgaris</i> *	Yellow Toadflax (Butter and Eggs)
<i>Verbascum thapsus</i> *	Common Mullein
<i>Veronica officinalis</i> *	Common Speedwell
PLANTAGINACEAE	PLANTAIN FAMILY
<i>Plantago major</i> *	Broad-leaved (Common) Plantain
RUBIACEAE	MADDER FAMILY
<i>Galium aparine</i>	Cleavers
<i>Galium circaezans</i>	Wild Licorice
<i>Galium mollugo</i> *	Wild Madder
<i>Galium palustre</i>	Marsh Bedstraw
<i>Galium tricornutum</i>	Rough-friut Corn Bedstraw
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY
<i>Lonicera tatarica</i> *	Tatarian Honeysuckle
<i>Lonicera morrowii</i>	Morrow's Honeysuckle
<i>Viburnum lentago</i>	Nannyberry
<i>Viburnum opulus</i>	Cranberry Viburnum (Guelder Rose)
<i>Viburnum trilobum</i>	Highbush Cranberry
COMPOSITAE	COMPOSITE FAMILY
<i>Achillea millefolium</i>	Yarrow
<i>Ageratina altissima</i>	White-snakeroot
<i>Anaphalis margaritacea</i>	Pearly Everlasting
<i>Arctium minus</i> *	Common Burdock
<i>Arctium lappa</i>	Greater Burdock
<i>Carduus acanthoides</i> *	Spiny Plumeless Thistle
<i>Carduus sp.</i>	Thistle sp.
<i>Cichorium intybus</i> *	Chicory
<i>Cirsium arvense</i> *	Canada Thistle
<i>Cirsium vulgare</i> *	Bull Thistle
<i>Crepis capillaris</i>	Smooth Hawk's Beard
<i>Erigeron annuus</i>	Annual Fleabane (Daisy Fleabane)

continued ...

Vascular Plants continued ...

<i>Erigeron canadensis</i>	Horseweed
<i>Erigeron philadelphicus</i>	Philadelphia (Common) Fleabane
<i>Eupatorium perfoliatum</i>	Common Boneset
<i>Eurybia macrophyllus</i>	Large-leaved Aster
<i>Hieracium caespitosum</i>	Field Hawkweed
<i>Hieracium lachenalii</i>	Common Hawkweed
<i>Inula helenium*</i>	Elecampane
<i>Lactuca canadensis</i>	Canada Lettuce (Wild Lettuce)
<i>Leucanthemum vulgare*</i>	Ox-eye Daisy
<i>Pilosella piloselloides</i>	King Devil Hawkweed
<i>Solidago canadensis</i>	Canada Goldenrod
<i>Solidago flexicaulis</i>	Zigzag (Broad-leaved) Goldenrod
<i>Solidago juncea</i>	Early Goldenrod
<i>Soldago sp.</i>	A Goldenrod
<i>Sonchus arvensis*</i>	Perennial (Field) Sow-Thistle
<i>Sonchus oleraceus*</i>	Annual (Common) Sow-Thistle
<i>Symphotrichum cordifolium</i>	Heart-leaved Aster
<i>Symphotrichum novae-angliae</i>	New-England Aster
<i>Taraxacum officinale*</i>	Common Dandelion
<i>Tragopogon pratensis*</i>	Meadow Goat's-beard
<i>Tussilago farfara*</i>	Coltsfoot

4.4 Spore-Bearing Plants

MOSESSES

<i>Amblyregium serpens</i>	
<i>Anomodon attenuatus</i>	Poodle Moss
<i>Anomodon rostratus</i>	Yellow Yarn Moss
<i>Anomodon rugelii</i>	Ruffled Tongue Moss
<i>Atricum altecristatum</i>	Wavy Starburst Moss
<i>Barbula convoluta</i>	Bear-claw Moss
<i>Barbula unguiculata</i>	
<i>Brachythecium erythrorrhizon</i>	
<i>Brachythecium populeum</i>	
<i>Brachythecium rotaeantum</i>	
<i>Brachythecium rutabulum</i>	Rough Foxtail Moss
<i>Brachythecium sp.</i>	
<i>Bryum sp.</i>	
<i>Callicladium haldanianum</i>	Sword Moss
<i>Campyladelphus chrysophyllum</i>	Bristle Star Moss
<i>Campylium chrysophyllum</i>	
<i>Ceratodon purpureus</i>	Purple Moss

continued ...

Spore-Bearing Plants continued ...

<i>Climacium dendroides</i>	Palm Tree Moss
<i>Dicranium</i> sp.	
<i>Drepanocladus aduncus</i>	Crochet Hook Moss
<i>Eurhynchiastrum pulchellum</i>	Rug Moss
<i>Fissidens taxifolius</i>	
<i>Funaria hygrometrica</i>	Bonfire Moss
<i>Hygroamblystegium varium</i>	Tangled Thread Moss
<i>Hypnum lindbergii</i>	Pale Plait Moss
<i>Hypnum pallescens pallescens</i>	Lesser Plait Moss
<i>Leskea gracilescens</i>	Necklace Chain Moss
<i>Orthotrichum anomalum</i>	Ribbed Bristle Moss
<i>Orthotrichum obtusifolium</i>	
<i>Orthotrichum pumilum</i>	
<i>Orthotrichum stellatum</i>	Bald Bristle Moss
<i>Oxyrrhynchium hians</i>	Spare Rug Moss
<i>Physcomitrium pyriforme</i>	Goblet Moss
<i>Plagiomnium cuspidatum</i>	Baby Tooth Moss
<i>Plagiomnium</i>	Thyme Moss
<i>Plagimnium medium</i>	Greater Tooth Moss
<i>Platygyrium repens</i>	Oil Spill Moss
<i>Pleurozium schreberei</i>	Red -stemmed Feather Moss
<i>Polytrichum juniperinum</i>	Juniper Haircap Moss
<i>Ptilium cristacastrensis</i>	Ostrich Plume Moss
<i>Pylaisia polyantha</i>	Stiff Paintbrush Moss
<i>Pylaisia selwynii</i>	Paintbrush Moss
<i>Thuidium recognitum</i>	Kilt Fern Moss

LIVERWORTS

<i>Chiloscyphus profundus</i>
<i>Frullania eboracensis</i>
<i>Jamesoniella autumnalis</i>
<i>Nowellia curvifolia</i>

LICHENS

<i>Alyxoria varia</i>	
<i>Amandinea punctata</i>	
<i>Arthonia radiata</i>	
<i>Caloplaca subsoluta</i>	
<i>Candelaria concolor</i>	Candleflame lichen
<i>Chaenothecopsis perforata</i>	SECOND REPORT in ON
<i>Chrysothrix caesia</i>	
<i>Collema tenax</i>	Soil jelly lichen
<i>Flavoparmelia caperata</i>	40 mile an hour lichen

continued ...

Spore-Bearing Plants continued ...

<i>Flavopunctelia soledica</i>	VULNERABLE
<i>Graphis scripta</i>	
<i>Hyperphyscia adglutenata</i>	
<i>Illosporiosis christiansenii</i>	
<i>Lecania croatica</i>	
<i>Lecania naegelii</i>	
<i>Lecanora glabrata</i>	
<i>Lecanora juniperina</i>	
<i>Lecanora strobilina</i>	
<i>Lecanora symmicta</i>	Fused-rim lichen
<i>Lecanora thysanophora</i>	Mapledust lichen
<i>Melanelixia subaurifera</i>	Abraded camoflage lichen
<i>Myriolecis sambuci</i>	
<i>Parmelia sulcata</i>	Shield Lichen+ Hammered Shield Lichen
<i>Phaeocalicium polyporaecum</i>	
<i>Phaeophyscia orbicularis</i>	
<i>Phaeophyscia pusilloides</i>	Pompon shadow lichen
<i>Phaeophyscia rubropulchra</i>	Orange-cored shadow lichen
<i>Physcia adscendens</i>	Hooded rosette lichen
<i>Physcia stellaris</i>	Star rosette lichen
<i>Physcia milligrana</i>	Mealy rosette lichen
<i>Physciella melanchra</i>	
<i>Physconia sp.</i>	Frost lichen
<i>Physconia enteroxantha</i>	
<i>Punctelia bolliana</i>	
<i>Punctelia rudecta</i>	Rough speckled shield
<i>Xanthomendoza fallax</i>	
<i>Xanthoria fallax</i>	Hooded sunburst lichen

4.5 Fungi

<i>Cerioporus varius</i>	
<i>Cotylidia diaphana</i>	
<i>Crepidotus applanatus</i>	
<i>Crepidotus mollis</i>	
<i>Crepidotus variabilis</i>	
<i>Ganoderma applanatum</i>	Artist's Conk
<i>Gymnosporangium juniperi-virginiana</i>	Cedar Apple Rust
<i>Humidicutis marginata</i>	Orange-gilled Waxy Cap
<i>Hygrocybe marginata</i>	Yellow Waxy Cap
<i>Hygrocybe sp.</i>	
<i>Hymenopellis furfuracea</i>	
<i>Kretzschmaria deusta</i>	Carbon Cushion
<i>Lentinus brumalis</i>	Winter Polypore
	continued ...

Fungi continued ...

<i>Mycena leaiana</i>	Orange Mycena
<i>Neofavolus alveolaris</i>	Hexagonal-Pored Polypore
<i>Oxyporus populinus</i>	Mossy Maple Polypore
<i>Peziza</i> sp.	
<i>Phellinus igniarius</i>	
<i>Picipes badius</i>	
<i>Polyporus mori</i>	
<i>Polyporus squamosus</i>	Dryad's Saddle
<i>Puccinia coronata</i>	
<i>Schizophyllum commune</i>	Common Split Gill
<i>Scutellinia scutellata</i>	Eyelash Cup
<i>Stereum ostrea</i>	False Turkey-Tail
<i>Stereum striatum</i>	Silky Parchment
<i>Trametes versicolor</i>	False Turkey Tail
<i>Trichaptum biforme</i>	Violet Toothed Polypore
<i>Xerula furfuracea</i>	
<i>Xylaria longipes</i>	
<i>Ceratiomyxa fruticulosa</i>	



Figure 18: Gray Ratsnake at Marble Rock Conservation Area. (Katherine Webb)



Figure 20: Great Spangled Fritillary seen during the Butterfly and Dragonfly Field Trip to Echo Lake Road. (Katherine Webb)



Figure 22: Green Heron at Little Catawaqui Conservation Area. (Katherine Webb)



Figure 19: Luna Moth. (Katherine Webb)



Figure 21: Calico Pennant. (Katherine Webb)



Figure 23: Short-tailed Weasel. (Katherine Webb)

5 Kingston Region Birds – Spring 2019 (Mar 1st – May 31st)

by Mark D. Read

The KFN reporting area is centred on MacDonald Park, Kingston and extends for a radial distance of 50 km. An interactive map showing the KFN circle is available on the website. If errors are noted or significant observations omitted, please 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 or phone me directly with your sightings (mark-dread@gmail.com / 613-217-1246). Please note the total below includes the following species that remain unconfirmed until accepted by the Rare Birds Committee: Eared Grebe, 13th April, Kingston; Chuck-will's-widow, 16th May, Long Point Road (PEC); American Avocet, 26th April, Deseronto; Long-billed Dowitcher, 15th May, Kaiser Cross Road (PEC); Willet, 15th – 18th May, Kaiser Cross Road (PEC); Fish Crow, 11th May, Kingston; Dickcissel, 24th May, Kingston.

In total, **251 species of bird** were recorded in our region during the reporting period, three up on last year's total of 248. All observations were obtained from eBird (www.ebird.ca) – 25.6% of which were shared with the KFN account. In total, 614 observers logged 5053 checklists, equating to 79,946 sightings, a significant increase over last spring. As usual, an impressive number of individual birds (623,703) were recorded, though many of these were, of course, the same birds seen 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 spring of 2019 was very average for most arrivals though numbers were generally down until a big migratory push in May. However, water levels were very high this spring, and shoreline habitat was generally hard to find. As always, migration hotspots like Prince Edward Point still produced some great records. Here are the highlights

of spring 2019:

Snow Goose: It was a poor spring for this species with only 14 records received. The first individual was seen on Amherst Island on 14th March (JTL), with a high count of 2000 seen at Horne's Ferry, Wolfe Island, on 23rd March (MDR).

Ross's Goose: A single bird was photographed at Point Peninsula, NY on 23rd March (StK, BrS, ChW).

Greater White-fronted Goose: Two birds were seen this spring; the first near Joyceville on 23rd March (JaH), and the second near Westcott Beach SP, NY, on 24th March (StK, BrS, ChW).

Brant: Dates for this species ranged from 9th May at Landings Golf Course, Kingston (EDB) to 27th May on Wolfe Island (LiD). A high count of 1100 birds came from Florida Road, near Murvale, on 19th May (CJG).

Cackling Goose: There were fewer reports this spring than last (just 8) with a moderate high count of just 3 at New Canal Dock, Wolfe Island, on 23rd March (MDR).

Mute Swan: This non-native species continues to expand its population across the area. A high count of 175 came from the Rideau Canal near Joyceville on 19th May (JaH).

Trumpeter Swan: Birds were regular along the Rideau Canal throughout the period but decreased in numbers as the birds moved away to breed in April/May (KFN).

Tundra Swan: Another poor spring for this species with just 11 records. A high count of 20 came from the Rideau Canal near Joyceville on 23rd March (JaH).

Blue-winged Teal: The first record for the year was of 2 birds on Black River, near Watertown, NY, on 26th March (ZaF).

Canvasback: There were 32 records this spring

compared to the 2 of last year. A high count of 14 came from Kingston's Inner Harbour on 22nd March (MDR).

Redhead: The last bird of the season was seen on Button Bay, Wolfe Island, on 19th May (VPM).

Black Scoter: There was just the one record this year of a single bird at Prince Edward Point on 5th May (PeP).

Barrow's Goldeneye: An adult male was present at Fisher's Landing, NY from 1st to 14th March (JSB et al.), with another male at Point Peninsula on 24th March (NiL). A pair was seen on Amherst Island on 22nd March (PaB et al.).

Ruddy Duck: There were just 7 reports this spring with a 'high' count of 2 from Kingston's Inner Harbour on 11th April (SJC).

Red-necked Grebe: There were 6 records of this species this year with a high of 2 birds seen in Hay Bay on 28th April (BER).

Sandhill Crane: It was another good spring for this species with 36 records received. The first birds of the year were seen on Amherst Island on 17th March (LHB).

Whimbrel: Thirteen birds were seen at Martin Edwards Reserve, Amherst Island, on 26th May (OFO), with 1 at Waupoos marina, Prince Edward County the same day (KSB). Two birds were also seen at Millhaven (again on 26th, SLD, CTH).

Ruddy Turnstone: Observations occurred over a tight timeframe from 21st to 27th May, with a high count of 12 at Martin Edwards Reserve, Amherst Island, on 26th (VPM).

Red Knot: As many as 15 birds (VPM) were noted at Martin Edwards Reserve, Amherst Island on 26th May (KFN).

Sanderling: Nine birds were seen at Martin Edwards Reserve, Amherst Island, on 26th (KJH).

White-rumped Sandpiper: There were 4 spring records of this species: 1, Martin Edwards Reserve, Amherst Island, 18th May (GrM, NaM); 1, Amherstview Sewage Lagoons, 24th May (EDB); 2, Mar-

tin Edwards Reserve, Amherst Island, 26th May (KJH); 1, South Shore Road, Amherst Island, 26th May (KJH).

Pectoral Sandpiper: The first of the year was seen near Seeley's Bay on 30th April (GaU), with the second seen on Amherst Island on 21st (NAK).

Wilson's Phalarope: All records came from Amherst Island, where this species is known to breed, with the first birds (2) noted on 12th May (MaR). A high count of 16 was noted on 21st May (WTD, KAW).

Little Gull: There were fewer records this year, and far lower numbers. Singles were seen in Kingston's Inner harbour on 8th April (TMW), with the remaining singles all from the Kaiser Cross Road area on 14th April (OFO), 18th April (CaB), and 24th April (PeH).

Lesser Black-backed Gull: There was just a single record this spring of a near-adult on the Wolfe Island crossing on 22nd May (MDR).

Black Tern: The first birds of the spring (15) were seen at Camden Lake on 6th May (MDR). A high of 57 birds came from a site near Watertown, NY, on 16th May (BrM).

Common Loon: The first bird of the season was seen at Millhaven on 24th March (JCG).

Double-crested Cormorant: The first bird of the season was seen in Kingston on 14th March (DCRB).

American Bittern: The first bird of the year was seen at Perch River WMA, NY, on 12th April (JSB).

Least Bittern: There were 10 records this spring with the first at Moscow Marsh on 8th May (NLB).

Glossy Ibis: A single bird was present near Perch River WMA, NY, from 21st-22nd April (StK).

Osprey: The first arrival of the year was seen at RMC, Kingston, on 28th March (DCRB).

Golden Eagle: There were 7 records this spring from a number of locations.

Northern Goshawk: It was an average season for this species with 3 records: 1, Little Cataraqui Creek CA, 4th March (WTD, KAW); 1, Deseronto, 13th March (TLH); 1, Opinicon Road, 19th May (PRM).

Snowy Owl: It was another good year for this species, though more so on Amherst Island than Wolfe. A high of 31 was seen on Amherst Island on 9th March (EOB), with the last bird seen there on 7th April (ToL).

Red-headed Woodpecker: There were 12 records this spring from a range of locations, though a distinct majority came from Prince Edward Point.

Peregrine Falcon: There were lots of records of this recovering species across the region this spring with breeding noted at Kingston and the OPG station, near Bath.

Olive-sided Flycatcher: It was a good spring with 19 records, the first from Opinicon Road on 19th May (PRM).

Yellow-bellied Flycatcher: There were 20 records this spring with a high of 4 at Prince Edward Point on 21st May (anon).

Loggerhead Shrike: The first bird of the year was seen at Napanee Limestone Plain IBA on 8th April (TMW).

Northern Shrike: The last bird of the season was seen near Glenburnie on 16th April (LeG).

Tufted Titmouse: There were a good number of records this spring (10). However, all but one observation came from the states. Two birds were seen at Ivy Lea on 27th March (NLB).

Carolina Wren: It was an even better season than last with 29 records, from a number of locations in the general Kingston area, as well as Bedford Mills, Verona, and the US. Two birds were noted at a private residence near Ravensview on 20th April (VPM) with another 2 at Cartwright Point on 21st April (MDR).

Grey-cheeked Thrush: There were 14 spring records this year; the first at Marshlands CA,

Kingston on 11th May (NAK); the last at the same location on 27th May (DCRB); and with a high of 4 at Prince Edward Point on 22nd May (anon).

Northern Mockingbird: It was another good season with 10 records, the majority from Prince Edward Point, with others from Kingston and Abbey Dawn Rd.

Bohemian Waxwing: Although it wasn't a great winter for this species, some lingered into the spring. A high count of 180 came from Grieves Corners on 3rd March (BER). The last bird (1) was seen at Prince Edward Point on 18th April (TMW).

Evening Grosbeak: Coming off a great winter for this species, a further 32 records were received; the last from Bedford Mills on 24th May (MEC).

Pine Grosbeak: There were 3 records this spring: 2, Amherst Island, 2nd March (NiM); 8, Little Cataraqui Creek CA, Kingston, 9th March (MJR); and 4 near Inverary on 14th March (JTS).

Common Redpoll: It was a great winter for this species and they continued well into the spring. The last bird was seen near Crosby on 4th May (SLD, CTH).

Hoary Redpoll: There were 2 spring records, with 1 at Button Bay Road, Wolfe Island on 16th March (MDR), and another at Three Mile Bay, NY, on 23rd March (StK, BrS, ChW).

Pine Siskin: It was a reasonable year for this species, with the last seen on 26th May near Verona (TAN).

Lapland Longspur: There was just a single record this spring – a single on Wolfe Island on 8th March (RoV).

Orchard Oriole: It was another great season with 52 records, the first of which was a male at Prince Edward Point on 5th May (PeP).

Rusty Blackbird: The first bird of the year was seen near Verona on 6th April (TAN), with a high of just 32 birds at Perch River WMA, NY, on 12th April (JSB).

Louisiana Waterthrush: All of the 10 records came

from the known location of Canoe Lake Road, with the first seen there on 24th April (MVAB, DoS).

Golden-winged and Blue-winged Warbler: Another bumper year for this species pair with Golden-winged Warbler more common (82) and widespread than the Blue-winged Warbler (29 reports). The latter were mainly seen in Prince Edward County and at locations south of, or just on, the shield.

Orange-crowned Warbler: The first of 22 records birds was seen at Glen Lawrence woods on 8th May (MiH).

Mourning Warbler: It was a good year with 19 reports, the first of which came from Prince Edward Point on 17th May (MiC).

Hooded Warbler: At least 3 birds were present at Prince Edward Point from 8th – 19th May this year (PEPtBO).

Cerulean Warbler: It was a great season for this species with 52 records mainly from the usual locations of Frontenac Provincial Park and Opinicon Road. The first was noted on 8th May at Frontenac PP (DaD) with a high of 7 at the same location on 21st May (DaD).

Prairie Warbler: It was a good year for this species in our area with a high of 4 birds noted in Frontenac Provincial Park on 19th May (CHB, MAJ). Other records came from Prince Edward Point and the traditional breeding areas of Chaumont Barrens and nearby locations in NY.

Canada Warbler: The first bird of the season was seen at Millen Bay, NY, on 15th May (DaM).

Other species observed during the reporting period: Canada Goose, Wood Duck, Northern Shoveler, Gadwall, American Wigeon, Mallard, American Black Duck, Northern Pintail, Green-winged Teal, Ring-necked Duck, Greater Scaup, Lesser Scaup, Surf Scoter, White-winged Scoter, Long-tailed Duck, Bufflehead, Common Goldeneye, Hooded Merganser, Common Merganser, Red-breasted Merganser, Ring-necked Pheasant, Ruffed Grouse, Wild Turkey, Pied-billed Grebe, Horned Grebe, Rock Pigeon, Mourn-

ing Dove, Yellow-billed Cuckoo, Black-billed Cuckoo, Common Nighthawk, Eastern Whip-poor-will, Chimney Swift, Ruby-throated Hummingbird, Virginia Rail, Sora, Common Gallinule, American Coot, Black-bellied Plover, Semipalmated Plover, Killdeer, Upland Sandpiper, Dunlin, Least Sandpiper, Semipalmated Sandpiper, Short-billed Dowitcher, American Woodcock, Wilson's Snipe, Spotted Sandpiper, Solitary Sandpiper, Greater Yellowlegs, Lesser Yellowlegs, Bonaparte's Gull, Ring-billed Gull, Herring Gull, Iceland Gull, Glaucous Gull, Great Black-backed Gull, Caspian Tern, Common Tern, Great Blue Heron, Great Egret, Green Heron, Black-crowned Night-Heron, Turkey Vulture, Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk, Bald Eagle, Red-shouldered Hawk, Broad-winged Hawk, Red-tailed Hawk, Rough-legged Hawk, Eastern Screech-Owl, Great Horned Owl, Barred Owl, Long-eared Owl, Short-eared Owl, Northern Saw-whet Owl, Belted Kingfisher, Yellow-bellied Sapsucker, Red-bellied Woodpecker, Downy Woodpecker, Hairy Woodpecker, Pileated Woodpecker, Northern Flicker, American Kestrel, Merlin, Eastern Wood-Pewee, Alder Flycatcher, Willow Flycatcher, Least Flycatcher, Eastern Phoebe, Great Crested Flycatcher, Eastern Kingbird, Yellow-throated Vireo, Blue-headed Vireo, Philadelphia Vireo, Warbling Vireo, Red-eyed Vireo, Blue Jay, American Crow, Common Raven, Horned Lark, 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, Winter Wren, Marsh Wren, Blue-grey Gnatcatcher, Golden-crowned Kinglet, Ruby-crowned Kinglet, Eastern Bluebird, Veery, Swainson's Thrush, Hermit Thrush, Wood Thrush, American Robin, Grey Catbird, Brown Thrasher, European Starling, American Pipit, Cedar Waxwing, House Finch, Purple Finch, American Goldfinch, Snow Bunting, Grasshopper Sparrow, Chipping Sparrow, Clay-coloured Sparrow, Field Sparrow, American Tree Sparrow, Fox Sparrow, Dark-eyed Junco, White-crowned Sparrow, White-throated Sparrow, Vesper Sparrow, Savannah Sparrow, Song Sparrow, Lincoln's Sparrow, Swamp Sparrow, Eastern Towhee, Bobolink, Eastern Meadowlark, Bal-

timore Oriole, Red-winged Blackbird, Brown-headed Cowbird, Common Grackle, Ovenbird, Northern Waterthrush, Black-and-white Warbler, Tennessee Warbler, Nashville Warbler, Common Yellowthroat, American Redstart, Cape May Warbler, Northern Parula, Magnolia Warbler, Bay-breasted Warbler, Blackburnian Warbler, Yellow Warbler, Chestnut-sided Warbler, Blackpoll Warbler, Black-throated Blue Warbler, Palm Warbler, Pine Warbler, Yellow-rumped Warbler, Black-throated Green Warbler, Wilson's Warbler, Scarlet Tanager, Northern Cardinal, Rose-breasted Grosbeak, Indigo Bunting, House Sparrow.

Observers: Erwin D. Batalla (EDB), Luke H. Berg (LHB), Pascale Berthe (PaB), North Leeds Birders (NLB), Eastern Ontario Birding (EOB), Kevin S. Bleeks (KSB), Jeffrey Camille Bock (CaB), S. Bolsinger (JSB), Carolyn H. Bonta (CHB), Dianne Croteau/Richard Brault (DCRB), Mike V. A. Burrell (MVAB), Michael Cadman (MiC), Mark E. Chojnacki (MEC), Steve J. Coates (SJC), Stephanie

L. Davison (SLD), Linda DeLap (LiD), William T. Depew (WTD), Dan Derbyshire (DaD), Zac Fait (ZaF), Leanne Grieves (LeG), Chris J. Grooms (CJG), Michael hart (MiH), Chris T. Heffernan (CTH), Kurt J. Hennige (KJH), Tyler L. Hoar (TLH), Peter Hogenbirk (PeH), Jack Hughs (JaH), Michael A Johnson (MAJ), N. Anthony Kaduck (NAK), Steve Kelling (StK), Nick Leone (NiL), Jeremy and Tim Logan (JTL), Tom Long (ToL), V. Paul Mackenzie (VPM), Paul R. Martin (PRM), Brian Miller (BrM), Daniel Miller (DaM), Gregg Miller (GrM), Nathan Miller (NaM), Nicole Munch (NiM); Kingston Field Naturalists (KFN), Todd A. Norris (TAN), Prince Edward Point Bird Observatory (PEPtBO), Ontario Field Ornithologists (OFO), Peter Pilgrim (PeP), Mark D. Read (MDR), Bruce E. Ripley (BER), Mark Romer (MaR), Martin J. Roncetti (MJR), Donald Sutherland (DoS), Jacek T. Staszak (JTS), Brian Sullivan (BrS), Gary Ure (GaU), Ronald Vandebeek (RoV), Kathy A. Webb (KAW), Tom M. Wheatley (TMW), Chris Wood (ChW).



Figure 24: Red-necked Grebe at Toronto/Etobicoke Co. Sir Samuel Smith Park on June 14, 2019. (John Licharson)



Figure 26: Snow Bunting, March 6, 2019, Howe Island. (Peter Waycik)



Figure 28: Scarlet Tanager, May 18, 2019, Howe Island. (Peter Waycik)



Figure 25: Wilson's Warbler, May 27, 2019, Howe Island. (Peter Waycik)

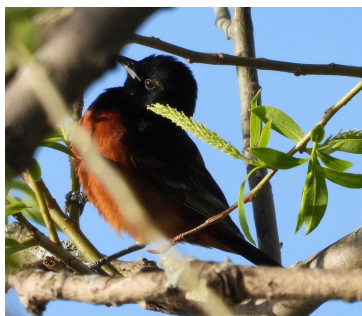


Figure 27: Orchard Oriole, May 18, 2019, Howe Island. (Peter Waycik)

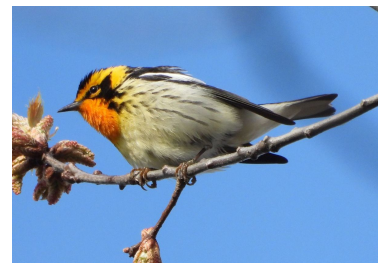


Figure 29: Blackburnian Warbler, May 15, 2019, Howe Island. (Peter Waycik)

6 Articles

6.1 What is OWA?

by Jacqueline Bartnik

Several years ago, I discovered an organization that I thought the Kingston Field Naturalist members might be interested in hearing about. Several KFN members including myself have attended several of their workshops such as the safe use of chainsaws, climate change, and its effect on Canadian trees, guided woodlot tours and learned about ticks and tick removals. These and many more were presented by OWA.

Ontario Woodlot Association (OWA) is a not-for-profit grassroots organization which is governed by an elected volunteer board of directors. Members are made up of people who either own and manage their own woodlots which are as small as 2 acres to several hundred acres throughout the province, or individuals and organizations that support this organization and its goals. The OWA vision is to create a healthy woodlots production. The Mission of OWA is to promote sustainable management of Ontario's forests by providing guidance, advice and best practices to woodlot owners that allow them to evolve as stewards of these valuable lands. Ontario Woodlot Association acts as a united provincial voice, upholding landowner's rights under the law and emphasizes land owner responsibilities. The belief is that each woodlot owner acts as a steward of Ontario's most important natural resource and each member is part of a larger social, environmental and economic landscape. Members maintain a green environment, address our concerns about effects of climate change on our forest and speak as one voice to the government, public and forest industry. OWA has created several workshops, demonstrations and activities. It has also published the e-letters "News from Around the Woodlots" and "The Ontario Woodlander." It is a member of Canadian Federation Woodlot Association. Members/Owners have participated as partners with "Eastern Ontario Model Forest" in a forest certification program providing an opportunity for private woodlots to have their forest certified.



Figure 30: Visiting the Northumberland County Forest. (Jacqueline Bartnik)

On April 4, 2019, I drove to Cobourg Ontario to attend "2019 OWA Conference (AGM)." The conference started with a wonderful bus tour in spite of all the rain that fell the day before. We had to arrive by 12:00 pm (noon) to register and get a hotel room, then go to the bus. At 12:30 pm, we were off to Northumberland County Forest. The tour was led by Todd Farell (Forest Manager, Northumberland County). We walked and talked about this stunning property discovering the importance of thinning out and planned burns for this plantation. The thinning out is done in an organized method and burning is necessary to recycle nutrients back into the soil and prepare the area for native species returning to the area. Northumberland County Forest Services is responsible for managing approximately 2225 hectares (5500 acres). This property is a mosaic of red, white, jack and scotch

pine, larch and white spruce plantations. They are hopeful that with the thinning and burning, the natural mixture of vegetation will return such as Red, Black and White Oak, Sugar and Silver Maple, Largetooth and Trembling Aspen, White Ash, Basswood, American Elm, Eastern Hemlock, White Cedar, White Pine, White and Yellow Birch, Black Cherry, American Beech and other conifers plus other vegetation. Past agricultural practices have destroyed much of the natural occurring wetlands, sand dunes and Black Oak savannah /woodland. Nearly all of Northumberland County is located on the Oak Ridges Moraine regulated provincially by the Oak Ridges Moraine Conservation Plan. We walked to several locations, but due to the weather our trip had to be reorganized. We took a break for treats and drinks and returned to our buses and headed off to Rice Lake a NCC property to witness the restoration in this area. They have started removing Red Pine and other non-native species and scheduled a prescribed burn this year. You can start to see the return of the Oak Savannah. We returned to our hotel and prepared for the OWA social hour at 6 pm where we had cocktails, treats and supper at the hotel. After the long walk through the woods and the social hour, we all decided to go to bed early since the conference was starting early the next day.



Figure 31: Oak Savannah at Rice Lake. (Jacqueline Bartnik)

The Conference Hall opened at 7:00 am for us to wander through it to see all the exhibits and purchase items. I purchased a few items for family

and friends. With continental breakfast in tow, we all settled into our seats. We were welcomed by the President of the OWA, Paul Robertson who acknowledged the indigenous people of the area and asked Richard LaLander (Chief Dream Hunter) to say a few words and give a blessing to start the conference.

Pam Lancaster, Stewardship Technician of Ganaraska Region Conservation Authority, was our first presenter. She talked about "The past, present and future of natural heritage in the Ganaraska Region." The glaciers carved the area and were responsible for the watershed, the wildlife and the vegetation of the area. 1200 years ago before the Europeans arrived, the area looked totally different with white pine, hemlock, oak, maple and beech predominating. By the 1700s most of the woodlands had disappeared. In 1830 there were still reports of eastern timber wolf and wild rice growing in Rice Lake. In the 1920s, scientists and land owners noticed that salmon had stopped spawning in the rivers due to deforestation. In the 1930s forest only covered 18% of the province. Edward Zavitz (1875-1968) was a tree environmentalist who in the 1900s, taught at Guelph University and in 1922 he created the first tree seed nursery in the province in a 2 acre area. In 1945, Arthur Richard (1890-1971) published a study on the watershed in the area. In 1946, the Ganaraska Region Conservation Authority was formed and in 1947 the first trees were planted by returning vets who came home looking for work. By the 1970s more than 7 million trees had been shipped and planted. On March 21, 1980 the area was flooded including Port Hope. In 1990, there were many closures of Conservation Authorities so communities got together and formed land trusts to save the trees. By 2008, dark green forests covered 32% of Ontario and with work on the watershed and tree plantation by 2019 forest now covered approximately 40%. Northumberland County noted the effects of climate change in the area and is working on a reforestation plan.

Adam Shoalts was the second presenter. Adam (PhD) is an Explorer-in-Residence of the Royal Canadian Geographical Society and shared his incredible story of crossing Canada's Arctic, nearly

4000 km by himself with only his canoe and his backpack. Adam thought that if he started in the middle of the summer he would be okay, so off he went not realizing we have a lot of blood sucking insects in the north. The idea was that he would travel from northern B.C. through the Northwest Territory into the Yukon to Hudson Bay. McKenzie River was very difficult as it did not flow in the right direction and he had to use poles to push the canoe along. Once he reached the north end of the Great Bear Lake, he was very exhausted and hungry. He needed to be on the south east side to get to Hudson Bay and the water was a warm 2 °C. On Canada Day, he was very hopeful when he saw a rainbow and by July 8, he had crossed Great Bear Lake. He continued his journey along Coppermine River which divides 5 watersheds and on Sept 7, he arrived at Baker Lake, Nunavut: the end of his journey. Adam has written many books including "Alone Across Canada's Arctic." His presentation was very entertaining and we had many questions for him.

We then had a break for a few minutes and continued with the official AGM business part of the meeting. We listened to the President's report, the Financial report and auditor report, and finally the election of the directors. Finally around noon a wonderful buffet of roast beef or vegetable lasagna was provided with a selection of fruit pies. Lunch was outstanding and we all overate.

After lunch we listened to a presentation by Tom Richardson, a representative for Lavern Heidemen & Sons Sawmill. Tom's topic was "Plantation Management and Economics of Thinnings." Lavern Heidemen & Sons Sawmill has been in operation for 25 years and is a family-owned forestry company. They have developed a special harvesting method concentrating on the harvest of Red Pine, Balsam Fir and other non-native trees which were commercially viable. They remove trees by thinning rows, and removing specific trees in different areas looking for the larger diameter or diseased/dead trees so healthy trees are not affected. The first removal is mainly for diseased/dead trees and thinning certain rows. The trees are usually 28 years old and the first cut usually is 50 tons at \$4-12 per ton. They continue this process every 10-

12 years. By the third stage, they start to note the return of native vegetation. All this is done with machines as they are usually doing hundreds of acres.



Figure 32: Sign at Hazel Bird Nature Reserve. (Jacqueline Bartnik)

Adam Bloskie, Policy Advisor, Ministry of Natural Resources and Forestry, was to update members on Ontario's Forest Strategy, but he was not available so we continued the presentation with Val Deziel. Val is the Coordinator Conservation Biology at the The Nature Conservancy of Canada (NCC). Her topic was "Tallgrass Woodland Awakening – Restoration Experiences in the Rice Lake Plains." As of today, Nature Conservancy of Canada has approximately 1.1 million hectares under their protection. In 1962 a plucky band of naturalists based in Toronto had a bold idea of saving the natural spaces. They wanted to leave a legacy for future generations by safeguarding the watersheds and lands throughout Canada. In Ontario, Rice Lake Plains is one of the areas that needed preserving and restoring. Rice Lake Plains (40,470 hectares) is located southeast of Peterborough and is on the Oak Ridge Moraine. This area is a very rare habitat in North America with many endangered ecological communities. The stewardship of Rice Plains is now underway with the help of private landowners, Alderville First Nations, conservations groups and the provincial government. Pockets of natural prairies and savannah are still intact, thanks to the work of people like Hazel Bird and other naturalists. With help from volunteers, NCC has started restoring the Black Oak Savannah

and the grasslands by the removal of non-native species such as Scots Pine, Spotted Knapweed, and Dog-strangling Vine. The Hog Nose Snake and grass land birds have started returning. This year the NCC will do a prescribed burn which will help seeds germinate and they are planning to purchase

30 more hectares. On Friday afternoon, we got to see for ourselves this beautiful area.

The AGM closed around 4:00 pm with door prizes and a silent auction. These two days were very enjoyable and educational. I am already looking forward to next year's AGM.

6.2 The History of Kingston Field Naturalists

by Jacqueline Bartnik

This article was written for the general public and first appeared in The Beacon

Dr. George M. Stirrett arrived in Kingston, in 1948, as Dominion Wildlife Biologist for Ontario. On March 31, 1949, 22 people interested in Natural History met in Agricultural Board Room of Ontario Government Building on Barrie St., at Dr. George M. Stirrett's invitation, to discuss the formation of a local nature club. They decided to meet again in the fall; in the meantime, two field trips were organized one on April 23rd to Collin's Bay and second one on June 1st to Collin's Lake. On November 24th, 1949, a group of nine people established the Kingston Nature Club, which eventually became the Kingston Field Naturalists (KFN). With Stirrett as first president, the Club's objective was acquired record and disseminates knowledge of Natural History, and to stimulate public interest in Nature and in the protection and preservation wildlife. Early in its existence, it joined the Federation of Ontario Naturalists (FON), which is now called Ontario Nature (ON), with the idea of speaking as one voice to preserve nature. The Kingston Field Naturalists first annual meeting (AGM) was April 26, 1950.

Three founding members were vital to the organization in its early year: Stirrett, Helen Quilliam and Robert (Bob) B Steward. Under Stirrett's guidance membership grew to 50 people in 5 years. He educated the public through weekly "Local Notes on Natural History" in the Kingston-Whig Standard for 11 years, which Helen Quilliam continued for a further 10 years. The subject was often birds, and in 1965 Quilliam combined the articles with club members' record to produce her book History of the Birds of Kingston. It included re-

search of the history of ornithology in the Kingston area dating back to the 1850's. There were even references to birds seen in the Kingston area by members of Champlain's entourage in 1615.

The many hours that Robert B. Steward gave to this young club, along with his knowledge, were critical to the growth of the organization. He is one of the groups of people to serve as president for 2 terms (1954-1955 and 1969-1971) as well as volunteered with Federation of Ontario Naturalists (FON/ON).

In the early days of the club, Roland Beschel willingly shared his botany knowledge and today members' interests cover (among other things) birds, butterflies, dragonflies/damselflies, bats, reptiles, amphibians, insects, plants, lichens and fungi.



Figure 33: KFN members enjoying lunch during a ramble. (Jackie Bartnik)

Birding has always been the club's major inter-

est, so the organization started looking at preserving habitat. In 1963, the club became incorporated when it acquired its initial 200 acres (80 hectares) north of Sydenham to preserve the Canadian Shield habitat for birding and plants. The original purchase has grown to approximately 126.6 hectares and was renamed the Helen Quilliam Sanctuary. In 1986, the KFN purchased 100 hectares of land on Amherst Island to preserve another type of habitat along Eastern Lake Ontario Shoreline. With the help of Ducks Unlimited, we protected the wetland for birds such as Wilson's Phalaropes, Purple Martins and have an Osprey Platform. The site is named the Martin Edwards Nature Reserve. Edwards was KFN President in 1956-1958, served as president of the FON, and was instrumental in the formation of the Canadian Nature Federation and served as its president. Edwards proposed that pesticides were affecting gulls on Pigeon Island causing eggs to have thin shells and the loss of the next generation. The club now owns two properties on the northeast end of Amherst Island: in May of 2018, the Kingston Field Naturalists acquired the neighbouring property, Sylvester-Gallagher Nature Reserve.

As the club grew through the years, so did our projects and reputation. Kingston Field Naturalists has participated in many scientific studies and our club has acquired a reputation as a place of knowledge. For example, we have participated in the Breeding Bird Survey, done Forest Breeding Bird Monitoring, and carried out Christmas Bird Counts since its formation. Dr. Ron Weir (KFN president 1973-1975) was regional coordinator for the Ontario Birding Bird Atlas. In 1971-72, Dr. Weir organized a daily survey during spring and fall migration at Prince Edward Point. Over 75,000 birds were banded and Point was shown to be a major migratory stop-over. The KFN data were shared with Canadian Wildlife Service, resulting in the designation of the Point as an Important Bird Area (IBA) the declaration of the Prince Edward Point National Wildlife Area. In 1989, Weir published his book Birds of Kingston Region, on the club's 40th anniversary, and described 343 species. The Kingston Field Naturalists maintains a checklist of birds within a 50 km radius of Kingston. The number of bird species has climbed through the

years and now we are up to 360 birds and climbing.

Members start birding early in the year, opening our birding adventures to the general public on Family Day (Ontario Holiday - Feb) with an outing to Wolfe Island in search of owls and arctic birds. Throughout the winter months, we are off in search of our little visitors from the north and local residents who bravely stay in Canada during the winter months. In May, we do a Spring Round Up and we lead bird walks for the public at Lemoine Point, where we see and hear returning spring and summer birds. Birding continues all summer, and then in the fall we say good-bye to our summer birds and start to look for returning Owls and other Arctic species. We end the year with our Christmas Bird Count which now takes place in 10 different circles in the Kingston region.

Outings are still one of the Kingston Field Naturalists most popular activities. As the club has grown, our knowledge has diversified and we have added other items of interest such as butterflies, dragonflies/damselflies, bats, reptiles, and fungi. Every second and fourth Tuesday, we participate in a ramble. These are slow walks for several hours to observe nature. Once a month we are off on field trips where we learn from local experts. Once a year, we arrange a weekend trip outside of Kingston to study nature. Every June, Kingston Field Naturalists has a BioBlitz, at a different site each year, within the Kingston area, where we try to identify as many species as we can within 24 hours. The Kingston Field Naturalists have done 21 of these very enjoyable BioBlitzes.

For the last 40 years, the Kingston Field Naturalists has offered programs for youth, now consisting of 2 groups: the Kingston Junior and the Kingston Teen Naturalists. Anne Robertson and Diane Lawrence have been provincially recognized for inspiring young people through Nature, helped by students plus KFN volunteers.

This year the Kingston Field Naturalists are celebrating an amazing achievement, its 70th anniversary. All are welcome if you are interested in joining this club. Please check our website for additional information.

6.3 Exploring the Backyard

Right at Home

by Carolyn Bonta

A series of articles about exploring the “backyard” should kick off with stories set in an actual backyard, right? As I write this in late June, I am amidst final preparations for summer fieldwork that will take me 300 km north of Yellowknife, NT and away from my familiar stomping grounds. Short on time, I’m not straying far from home these days. But, with a backyard naturalization project ongoing, there is a lot to captivate my attention right here.

Since purchasing our house 16 years ago, my partner and I have been taking conscious steps to consider the environment in all of our renovation decisions. These include solar-heated hot water, four rain barrels, a green/living roof on the carport, “Feather Friendly” bird deterrent on windows, and plans for permeable pavers when we replace the driveway this fall. The crown jewel, in our minds, is having dug up two truckloads of asphalt and concrete in 2016 and replanted the area, leaving the back third of our backyard native and natural.

Over the years, our tiny 0.15-Acre property in the middle of the City of Kingston has attracted numerous species: 12 mammal, 51 bird, and three herptile, as well as numerous odonates, butterflies, moths, spiders, and other insects whose identification we are still learning. The wild part of our yard could be a demonstration site for Eastern Ontario’s native conifers, and summer reveals the fruits of the previous fall’s harvest of wildflower and herb seeds. We continue to be amazed at the diversity of life that can congregate in such a small area.

Every season brings something new to the yard. This winter a female Purple Finch joined the regular House Finches at the feeder, and in early spring three Field Sparrows, an Eastern Towhee, and a Swamp Sparrow upped our “sparrow” count to eight species. A May Apple that I purchased for \$0.99 last July made an appearance in May (albeit without the “apple”) – an audience for Jack to preach to from his pulpit! With the arrival of

summer, two black-and-white visitors showed up on the outside wall of the sunroom: An Eight-spotted Forester moth that waved at us with brilliant red-tufted forelegs and a Daring Jumping Spider that took one look at us and scooted for cover, suggesting it wasn’t as bold as its name implies. While gardening around the dead wood of an old Bridalwreath Spirea, I was intrigued to find a small clump of *Xylaria* discharging a fine gray powder of asexual spores. Perhaps I’ll be able to narrow this fungus down to species when the outer surface hardens to black in its upcoming sexual stage.

Now, as I putter around the yard trimming overzealous Virginia Creeper and pulling native sunflower seedlings out from areas reserved for other flowers, I wonder what the yard will look like in August, and what life will welcome me home after a busy summer. Between now and then, I know a cohort of Monarchs will be raised – my partner checks the Milkweed daily in search of eggs – and the various sedums on the roof will bloom in a colourful sequence of yellow, pink, and red. Beyond that... has yet to be discovered.



Figure 34: A Greater Bee-fly stopped to rest on the lawn in late April. (Carolyn Bonta)

6.4 Jessie Deslauriers 1932-2019

by Dr. Raleigh J. Robertson

Jessie Deslauriers, local naturalist and writer of the long-running Nature Notes column in Kingston this week, died on July 9, 2019. KFN members will remember Jessie as an enthusiastic student of nature who for many years served as the KFN contact for the Project Feederwatch.

Dr. Raleigh J. Robertson, Baillie Family Chair in Conservation Biology, emeritus delivered this tribute at Jessie's funeral, both in his capacity as director emeritus of Queen's University Biological Station, and as a good friend.

Jessie Deslauriers was a passionate supporter and friend of the Queen's University Biological Station at Lake Opinicon (QUBS). As Director of that field station for over thirty years, I saw lots of students come and go, but I never saw another student quite like Jessie; she truly was 'one of a kind'. Jessie first became involved at the biology station in the mid '80's, I think stimulated by work she had done with the Kingston Field Naturalists at the Prince Edward Point Bird Observatory, and after taking a field course at the Station with Dr. Laurene Ratcliffe on Acoustic Communication in Birds.

Starting in 1986, she came to the Station every year for a week in mid-May to study migratory patterns of birds by mist-netting and banding, then later to study Eastern Phoebes and their response to potential predators, like Gray Ratsnakes. Her studies then moved to Least Flycatchers, until 1993 when she noted a significant population collapse of this little aerial insectivore. Not to be deterred, Jessie began collecting and identifying mosses at the Station, contributing more than 500 specimens of over 130 species to the Fowler Herbarium. Jessie's annual visits continued from 1986 through 1998; she would arrive in her little old Datsun and establish herself in her beloved "Bunkie #1", a tiny 8×10 cabin in which she'd place a few plants, including an orchid, on the windowsill. She truly loved her time in that little Bunkie Jr.

While at the Station, Jessie was fully engaged in her own work, but also in the work of other students, who remember her fondly. For example, Kit

Muma notes:

"We remember her fondly for her enthusiastic study of the Phoebes. You may recall that Bruce (Kit's husband) is not a morning person. He would wake up at 5 am with the sound of a very loud and persistent phoebe calling outside Earl Cottage. When he stumbled to the door to send it packing, he discovered Jessie waving a rubber snake near the nest to test parental care. I am not sure what he said to her but am positive her cheery demeanour disarmed any annoyance he may have felt."

Kit goes on to say, "Jessie always had a question or observation to share with us during mealtime." It was during those mealtime interactions at QUBS that Jessie would delight in discussions with faculty and students. I think Dr. Allen Keast was her favourite foil for discussions of birds and natural history in general, but Manager Frank Phelan, and Assistant Manager Floyd Connor were also reliable sources of insights that Jessie would relish exploring with them. She was certainly an engaging conversationalist. She loved to tell stories, and she would often anthropomorphize her animal subjects. During her field course with Laurene, Jessie recorded vocalizations of a song sparrow that she aptly named Pavarotti. It's a tribute to her engagement with her fellow students that at the end of the course they presented her with a framed sonogram of Pavarotti's song, a remembrance that is now in Director Steve Loughheed's office at the Station.

I should note that Jessie's return to pursuing an undergraduate degree occurred when she was working full-time. As a mature student, she was some thirty years older than her fellow students, but she persisted, and earned her BA in 1987, and her BSc honours in 1991. This required lots of motivation and dedication, of which Jessie had plenty. For a period in the early 2000's, we at

QUBS had only intermittent contact with Jessie, but then in 2013 we got a surprise phone call. Jessie explained that she wanted to make a significant donation to QUBS, and she wondered if we would like a new library! (Jessie was always direct and would get right to the point.) She said she wanted to do something in memory of her father, Jack Hambleton, who was a writer, naturalist, and early conservationist. Indeed, Jessie had very clear ideas of what she wanted as a tribute to her father. To cut a long story short, Jessie donated the funds to Queen's to allow the building of what is now the Jessie Deslauriers Centre for Biology, which houses both the Jack Hambleton Library, and the Fowler Herbarium at the Biological Station on Lake Opinicon.

Because I had virtually nothing to do with the building design or furnishings, I can say that I think Steve Loughheed and others have done an outstanding job of capturing the essence of what Jessie wanted to accomplish with her generous donation. It's a very attractive building, providing space for both the library and herbarium, but also laboratories. The library was central to commemorating Jessie's father, and the display that Jessie helped design with Jack's fishing gear, his books, and a touching photomontage of his Hambleton Lake floatplane fishing expeditions is a touching

memorial to this man who was so important to Jessie. It's also a fitting memorial to Jessie, as a storyteller, a writer, and a student who loved books, natural history, and learning. The inclusion of the Fowler Herbarium is certainly a good fit with Jessie's strong interest in plants, collections, and natural history. In addition, the laboratories are a fitting testament to Jessie's enduring love of learning, investigating, and exploring the secrets of the natural world

It was only in recent years that I came to fully appreciate the foundation of Jessie's interest in the natural world. In addition to the influence of her father, she often talked about when growing up in Toronto she frequently visited the Royal Ontario Museum and eventually was given rather open access to collections. She remembered knowing artist Robert Bateman and many of the ROM curators from her early experiences there. Clearly these early experiences with natural history with her father and at the ROM had a profound impact on Jessie and I think it's very fitting that she was able to bring them full circle, and create a lasting legacy at QUBS that will benefit students of field biology for many years to come. So, thanks, Jessie!

If you haven't seen it, I invite you to stop by the Biology Station and see the results of Jessie's vision, commitment and generosity.

6.5 KFN at 70

by Alexandra Simmons

The idea of a nature club in Kingston was conceived by George Stirrett in March 1949, and the first general meeting of the Kingston Nature Club (now the Kingston Field Naturalists) took place in November of that year. So we are completing our 70th year this fall! Histories of the KFN at 5, 25, 33, 40, 50 and 60 can be found on the new and improved KFN website (kingstonfieldnaturalists.org). This article recounts the KFN's evolution during the past 10 years.

KFN presidents during this time were Chris Grooms, Janis Grant, Gaye Beckwith (twice), Mark Conboy, Kurt Hennige, Alexandra Simmons and Anthony Kaduck. We lost our Honorary Presi-

dent Faith Avis in February 2010. The next Honorary President was Martin Edwards, former President of KFN, Federation of Ontario Naturalists and Canadian Nature Federation, whose life bird list stood at over 8400 species when he died while birding on the Amazon in February 2012. Since then we have been fortunate to have Ron Weir in this role. During the entire period, 2 key organizational leadership roles were carried out impeccably by Larry McCurdy (Treasurer) and John Critchley (Membership Secretary).

Several KFN members were publicly recognised during these years: in 2010, Cameron Smith was awarded the Ontario Nature W. E. Saun-

ders Natural History Award for being the driving force behind the establishment of Ontario Nature's Lost Bay Reserve near Gananoque; in 2012 Anne Robertson was awarded the Queen Elizabeth Diamond Jubilee Medal for the contribution to educating Kingston residents of all ages about nature; in 2016 Bud Rowe received the Ontario W. E. Saunders Natural History Award for his outstanding contributions to protecting natural areas in eastern Ontario.

At the time of its formation, the primary interest of club members was bird observation and preservation. During the past 10 years, the KFN's intense collection of data on local birds continued. Species summaries for each season, a yearly bird summary, Midwinter Waterfowl Inventory for the Kingston Region, up to 10 local Christmas Bird Counts and spring and fall Bird Roundups were initially tallied by Ron Weir and communicated to our members via The Blue Bill. Upon Ron's relocation in the middle of this period, Mark Conboy briefly took over some of this work. Perhaps it was so onerous that he decided to leave Kingston himself (!), and Mark Read stepped up and continues to this day. Data collection and communication have even increased: a Gananoque CBC was added in 2014, a Frontenac CBC in 2015, and a Moscow CBC revived in 2016 and 2017. Mark Read also posts bird summaries each week to the Ontbirds listserv. Spring and Fall roundups have been reconfigured from a day of competitive birding to more resemble a CBC in order to have a larger number of participants and better coverage.

The KFN continued to participate in bird population monitoring projects, some with partner organisations. Some species of interest were: Chimney Swift, Short-eared and Snowy Owl, Loggerhead Shrike, Purple Martin, Bobolink, Eastern Meadowlark, Red-shouldered Hawk, as well as raptors in general on local islands (hawks, owls, eagles). The Kingston region is a hotspot for some declining species, making these data even more important to their conservation. Its status as an exceptional birding area was recognised by its selection as the location of the Ontario Field Ornithologists 35th Annual Convention in September 2016, at which time the Kingston Area Bird Checklist

was updated by the KFN Rare Birds Committee.

Environmental conservation continued to be a priority for the KFN. The KFN Conservation Committee, chaired by Chris Hargreaves, acted as a voice for nature at City Hall by closely following and providing input on issues related to Kingston's Official Plan, especially those affecting its Environmental Protection Areas. Early in the period covered by this article it started to be recognised that the number and location of windfarms were an important factor in their effect on local bird populations. The KFN Conservation Committee took it upon themselves to better understand the significance of Eastern Lake Ontario for migrating and nesting birds and the potential cumulative effects of existing and proposed onshore and offshore wind turbines. It organised a Bird Migration workshop in March of 2011 and wrote a resolution proposing a moratorium on wind farms near to Important Bird Areas and National and Provincial Parks, which was passed at an Ontario Nature Annual General Meeting. One focus was compiling data relating to grassland birds and bats on Amherst Island, culminating in a presentation to the Environmental Review Tribunal for proposed wind turbines on Amherst Island about turbines potential effect on the bobolink population. Through these activities KFN gained an understanding on the critical nature of the siting of turbines, which it shared with conservation organisations in other locations which could be similarly impacted.

Conservation was also advanced by KFN ownership of two nature reserves, overseen during this period by the Nature Reserves Chair Erwin Batalla. The Helen Quilliam Sanctuary preserves Canadian Shield habitat; human impact was minimised through regular inspection and maintenance, a Managed Forest Tax Incentive Plan was completed, and data on flora and fauna, such as those generated from installation and monitoring of wood duck boxes, were collected. The KFN property on Amherst Island was re-named the Martin Edwards Reserve in 2013. Much of it continued to be managed as short grass to preserve the population of nesting Wilson's Phalaropes. Changes in the number and type of Purple Mar-

tin nest boxes were successful in attracting a large number of these desirable and declining (elsewhere!) aerial insectivores. An exciting expansion of this reserve took place in 2018 when 80 acres of adjacent land were donated to the KFN to form the Sylvester-Gallagher Nature Reserve. KFN also protected property by providing financial help to organisations such as the Nature Conservancy of Canada to acquire land in the Napanee Plan, Frontenac Axis and Eastern Lake Ontario Shoreline.

The future of Nature depends on our youth. KFN has had young naturalist programs for more than 4 decades. In the past 10 years Anne Robertson continued to lead the Kingston Junior and Teen Naturalists. The Juniors participated in indoor programs and outdoor field trips that covered topics from arthropods to astronomy. They learned how to help nature by donating to environmental causes, performing cleanups at nature reserves and participating in nature advocacy; some attended nature camps with a KFN scholarship. The Teen Naturalists took field trips at all seasons, both day and night, recording observations in field notebooks. Some attended leadership camps such as the Ontario Nature Youth Summit and organised local events. These programs inspired young people to better understand nature and many of them will have a positive impact in the future.

Most activities described to this point could be seen as continuations to KFN's traditional important work to preserve and understand nature. Around the middle of the past decade, it was recognised that the interests of the membership were evolving and expanding. The results can be seen clearly today.

Field trips have always been an important component for KFN members. For a long time this consisted of birding trips to local hotspots, often in search of specific species. In recent years, other types of outings have been offered such as geology field trips and outings to observe butterflies, dragonflies and damselflies, or moths. Overnight trips have been revived, initiated by Gaye Beckwith in 2011 with the first of many to Algonquin Park in late April. Excursions to Cayuga Lake (New York), the Lake Ontario shoreline west of Kingston, and southwestern Ontario were focussed on birds, but

the multiday trips allowed much more general habitat observation and socialization. Field trips for the public were also expanded, with an annual Family Day public outing to Wolfe Island in search of Snowy Owls and Bald Eagles added to May birding walks for the public at Lemoine Point Conservation Area.

The expanding interest in all aspects of nature by KFN members was reflected in the growing popularity of two programs led by Anne Robertson. Twice a month Anne led Rambles, "slow walks to notice nature," in all seasons and all types of habitat in the Kingston area. This group of new and experienced naturalists met to observe all flora and fauna, as well as their traces such as fossils and tracks. Annual participation has grown to 60 members and the sharing of information between rambles has been rewarding for all. A big change in recent years has been the use of photography to aid in identification.

The KFN BioBlitz also turned out to be a perfect match with our members' interest in all aspects of the natural world. The Bioblitz attempts to list all species on a piece of property in a 24-hour period. In the past 10 years a variety of habitats have been "blitzed:" the Davies property near Morton; Lost Bay Nature Reserve on Gananoque Lake, the east end of Amherst Island, Depot Creek Nature Reserve of the Land Conservancy for Kingston Frontenac Lennox and Addington, Big Sandy Bay on Wolfe Island, Wintergreen Studios on South Frontenac, Menzel Centennial Provincial Park, Landon Bay at Thousand Islands National Park, our own Helen Quilliam Sanctuary at Otter Lake and the OPG Lennox Generating Station property. Open to the public with guided walks led by subject matter experts, vertebrates (mammals, birds, reptiles, amphibians, fish), invertebrates (including insects, butterflies, dragonflies, damselflies, moths), plants (vascular and non vascular) and fungi were identified and counted so a snapshot of that site on that day was obtained. Two of these sites yielded more than 900 species-can 1000 be far behind?

The KFN saw the growth of several "non-bird" experts in its own ranks. John Poland has become the go-to person on butterflies. He produced an annual summary each year which documented range

expansions and first observations of such beauties as American Snout, Red spotted Purple and Variegated Fritillary. John authored a Pictorial Pocket Guide to Butterflies of the Kingston Region in 2009; 3 additional printings have been necessary with over 500 sold.

Odonates (dragonflies and damselflies) have also caught people's attention. Kurt Hennige initially, then Carol Seymour, compiled annual summaries in *The Blue Bill* of sightings of these "fairies." Carol educated us with several articles on their identification and reproduction. In 2017, KFN published a Pictorial Guide to Dragonflies and Damselflies of the Kingston Area, authored by Carol Seymour, which, like John's Butterfly Guide is in great demand.

Other KFN members have not been shy to share their expertise with us through *Blue Bill* articles, field trips and checklists: Mike Burrell, Gary Ure and Mark Read for Moths; Paul Mackenzie for Orthoptera; Bruce Ripley for Herptiles.

The first step to nature preservation is often species identification. Once a correct "ID" is obtained, citizen science can provide useful data on location and numbers of a species for development of management plans. This is one area where there have been large changes in the last 10 years. A few

years ago Gaye Beckwith Mark Read, Mike Burrell and Kurt Hennige began the process of instructing KFN members on the use of eBird, which has since become a treasure trove of data on local bird occurrences. Then the use of several identification apps was introduced through KFN presentations about Bug Guide, eButterfly and iNaturalist. Combined with digital photography, these apps are helping KFN members learn something new every time they go out into the field (or perhaps once back at home with a coffee cup next to the computer). Birds, amphibians, reptiles, butterflies, dragonflies, herbaceous plants, trees, ferns, mushrooms, are just some of the things we are learning to recognise and document.

From its start 70 years ago, the KFN has been observing, understanding, appreciating and preserving nature in the Kingston area. It is entering its 8th decade with strong leadership and with a membership with a mix of interests and with people with different types and amounts of knowledge who willingly share it. New tools are available for us to better understand and document the natural world. Some of our newest members are the ones who adopt these tools quickly, so I hope to learn from them. Let's look to an exciting future in which we continue to work together to expand our and others' knowledge and have a positive impact on our natural environment.

6.6 Wildlife Photography Tips #1

Don't Blow Up Your Gulls: Exposure compensation

by Anthony Kaduck

I am not an expert photographer and this column is not intended for experts. I became interested in wildlife photography when I was planning a trip to Tanzania in 2015. I thought it would be a once-in-a-lifetime trip and I wanted to come back with some good wildlife photos. So I obtained a decent camera and lens and took a short photography course before we left. The results were encouraging, and I could see that with more knowledge and experience I ought to be able to capture even better images.

In a way photography is like birding: there is an

infinite amount of information, so there is always something new to learn. And like birding, photography rewards both study and practice. Through trial and error I have learned a fair amount about the craft of photography over the last few years. This column is intended to share things I have learned on my journey that may be of use to other aspiring photographers.

Understanding Exposure Compensation

In this first episode I want to talk about exposure compensation. It's a camera function that many

amateur nature photographers I have met seem unaware of, but in certain situations it is a really important tool to ensure you get the image you want. I won't get into a long explanation of how camera light metering systems work. Suffice it to say that most of the time they work very well. But there are a few situations in wildlife photography where left to its own devices the camera will make the wrong decision. Knowledge of how to compensate for this will help you get the right exposure and avoid disappointment. Those situations are:

- Backlighting
- Shadow
- Wetness and Whiteness

Backlighting. Let's start with a common situation: birds up in the treetops, or in the case, a bird on a wire. You see a Mourning Dove; your camera sees a mostly light background with one dark object. So it averages out the exposure and you are left with something like the image in photo 1 – a dark blob. After I took the first image I adjusted the exposure compensation two steps to the left (to -0.7) and photo 2 was the result. The bird is correctly exposed and all its plumage details are visible (e.g. the thin blue eye ring).



Photo 1



Photo 2

Of course I could have adjusted the exposure of photo 1 in post-processing, but the best-looking images start with a file that is correctly exposed in the first place. This is particularly important if, like most photographers, you shoot in a lossy format such as JPEG. Each time you edit a JPEG file more

data is lost, so the closer you get to correct exposure in the first place, the better your final image will look.¹

Shadow. Metering systems also struggle to correctly expose objects in shadow. Photo 3 shows a pair of Hadada Ibis from that trip to Tanzania. The birds are underexposed because they are in shadow and there is bright sunlight on the right side of the image. The metering system tried to average out the exposure, which left the birds in the dark. In this case positive exposure compensation – moving the exposure one or two steps to the right – would have produced a better image (photo 4).



Photo 3



Photo 4

Wetness and Whiteness. Bright spots also cause trouble for the metering system. In wildlife photography this often shows up when photographing in bright sunlight. Anything white or wet can end up being overexposed even if the rest of the exposure is good. So gulls, terns and white pelicans are a problem, and so too are turtles and frogs.

In the case of bright spots, the issue is that the image may look properly exposed, but on closer examination the highlights are blown out. Blowing out, also known as clipping, happens where the intensity of light in a certain area exceeds the camera's ability to capture information. So a blown highlight may look white, but if you look closely you will see that there is no detail in that part of the image.

Consider photo 5 – a Ring-billed Gull in sunlight. The image looks properly exposed, but if you zoom in (photo 6) you will see that there is no feather detail – it's just a blank field of white. Sadly, blown highlights are one thing that cannot be corrected in post-processing, as there is no data to work with.

¹Wikipedia has a good article on JPEG. See the section entitled Typical Usage at <https://en.wikipedia.org/wiki/JPEG>



Photo 5



Photo 6

Here again, exposure compensation comes to the rescue. In photo 7 I deliberately underexposed the image by adjusting exposure compensation two steps to the left (-0.7). In post-processing I was able to increase the exposure so the gull is properly exposed, but as a blow-up shows (photo 8) the plumage details in the white area are fully visible.



Photo 7



Photo 8

Using Exposure Compensation

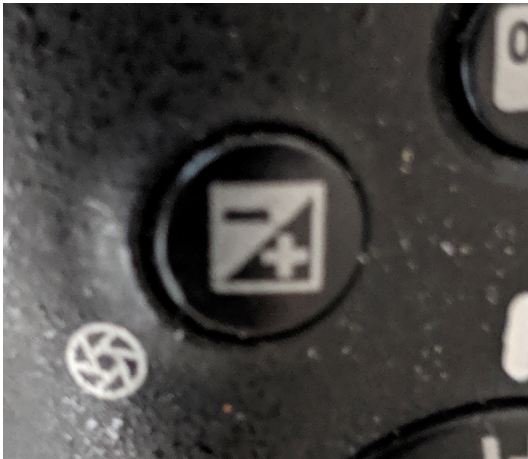


Figure 35: Photo 9. (Anthony Kaduck)

If you want to experiment with exposure compensation, the first step is to find how to adjust exposures on your camera. I recommend reading the

relevant section of the manual, which will show you where the adjustments are made. On most DSLR camera bodies you will find a button that looks like photo 9. On bridge cameras, it is more likely to be a multi-function button. Typically you will need to hold down this button while moving one of the rotating dials or switches to adjust exposure up or down. In either case you will be able to see your adjustments on the exposure compensation slider, which is usually visible in your camera viewfinder.

Three Important Tips

1. The monitor (LCD viewscreen) on the back of your camera allows you to test and adjust. So when you come across your quarry and the lighting may be problematic (backlit, shadow, wet or white) take a photo to start off, then if the bird or beast stays around, look at your monitor to see if the exposure is good. If not, try an adjustment of two steps, reshoot, and check the monitor. Continue testing and adjusting until you either get the perfect exposure, or more likely, the bird or beast absconds.
2. Most cameras have a function that will show blown highlights in the monitor. For Nikon cameras it is cunningly named Highlight Display. Again, check your camera manual to see how to activate this function. When activated, if you take an image and look at the monitor you will see flashing lights (photographers call these “blinkies”) in areas where there are blown highlights. This quick check will let you know whether you need to adjust the exposure. Note that for backlit objects, if the object itself is correctly exposed then there will probably be blown highlights in the sky behind it. This is not really a problem other than the fact that the sky tends to end up white rather than blue.
3. In most cases your camera will not automatically default back to the zero position once you have taken an image. I won't tell you how many times I have forgotten to take account of this and taken a quick snap of a rapidly-departing bird only to find that ex-

posure compensation was set for shadows
and the image was mostly blown out. It
seems that the rarer the bird, the more likely

it is that this happens! So you will want to
keep exposure compensation in mind as part
of your mental checklist.

Cryptographic Hash Function

by Rick Bortolotti

I was reading about cryptography and came across the words I used for the title of the poem. I stopped to think about them and look it up, but then noticed what I was surrounded by (the forest, pond, frogs and birds, the rain) seemed to be the real mystery. And what many of us do to hide and code things from each other, well, that's another story!

Listening to frogs

the pond alive with spring

rain pats the canvas yurt.

Wondering

grateful for frogs

a whip-poor-will's whinny just heard

through the shimmering

high frequency

December Grouse

by Rick Bortolotti

Morning sun has no heat now

its light changed,

or the experience of it

Behind the trees like stained glass

the sky

open and diamond clear,

soft snow and the land is grouse foot stitched tight 'til spring



7 KFN Outings

7.1 Catarauqui Trail Ramble (July 2, 2019)

by Paul Mackenzie

I am not responsible for parking, said Anne in a tone that preempted a reply. The rambles she organizes are so successful that participants often outnumber regular KFN field trips. Today there were 16 of us, and even after some car-pooling roadside parking was an issue.

It was a glorious day on the Catarauqui Trail off Opinicon Road which had a nice mix of sun and shade, woodland and wetland and just a few bothersome insects and some Poison Ivy along the sides of the flat easy trail. At this time of year there are things to see on every side, in the air and on the ground. Anne spotted all sorts of flora and fauna and dropped her gems of knowledge to those nearby while others were observing and photographing: Dragonflies and Damselflies with Al Quinsey, Butterflies with John Poland, Birds with Peter and Ken, Flowers and plants with Lena McPhee and Jackie Bartnik, and notables of all sorts with Nancy Spencer. I was distracted trying to find new grasses and sedges for my list.

I am sure nobody observed all that was seen and heard. I will list a few.

Vertebrates:

- Eastern Chipmunk (*Tamias striatus*)
- Great Blue Heron (*Ardea herodias*)
- Eastern Kingbird (*Tyrannus tyrannus*) with dragonfly
- Swamp Sparrow (*Melospiza georgiana*)
- Scarlet Tanager (*Piranga olivacea*)
- Rose-breasted Grosbeak (*Pheucticus ludovicianus*)
- Painted Turtle (*Chrysemys picta*)
- American Bullfrog (*Rana catesbiana*)
- Northern Water Snake (*Nerodia sipedon*)

Invertebrates:

- Wood Tick (*Dermacentor variabilis*) fast moving with red legs

- Racket-tailed Emerald (*Dorocordulia libera*) caught by Al
- Emerald Spreadwing (*Lestes dryade*)
- Common Whitetail (*Plathemis lydia*)
- Twelve-spotted Skimmer (*Libellula pulchella*)
- Giant Swallowtail (*Papilio cresphntes*)
- White Admiral (*Limentis arthemis*)
- Little Wood Satyr (*Megisto cymela*)
- Northern Cloudywing (*Thorbes pylodes*)
- Essex (European) Skipper (*Thymelicus lineola*)
- Hummingbird Clearwing Moth (*Hemaris thysbe*)
- Pale Green Assassin Bug (*Zelus luridus*)
- Leaf-footed Bug (*Leptoglossus sp.*)

Plants—Horsetails, Ferns and Conifers:

- Field Horsetail (*Equisetum arvense*)
- Rattlesnake Fern (*Botrychium virginianum*)
- Fragile Fern (*Cystopteris fragilis*)
- Sensitive Fern (*Onoclea sensibilis*)
- Eastern White Pine (*Pinus strobus*)
- Eastern White Cedar (*Thuja occidentalis*)

Monocotyledonous Plants:

- Bottle Brush Grass (*Hysrix patula*)
- Timothy Grass (*Phleum pretense*) in flower
- Reed Canary Grass (*Phalaris arundinacea*)
- Lakebank Sedge (*Carex lacustris*)
- Long-beaked Sedge (*Carex sprengelii*)

Dicotyledonous Plants:

- Bebb's Willow (*Salix bebbiana*)
- Wormseed Mustard (*Erysimum repandum*)
- Bullhead Lily (*Numphar variegatum*)
- Grey Dogwood (*Cornus foemina*)

- Red Baneberry (*Actea rubra*)
- Blue Cohosh (*Caulophyllum thalictroides*)

Shady spots were found for lunch and chatting.



Figure 36: Little Wood Satyr. (Peter Waycik)

When we crossed Maple Leaf Road coming back we knew we were not far from the cars all safely parked on Opinicon Road. We were back in Kingston before 14:00 as advertised.



Figure 37: Eastern Kingbird with its lunch. (Peter Waycik)

7.2 Field Trip to Martin Edwards Reserve (August 18, 2019)

by Carolyn Bonta



Figure 38: New sign at Sylvester-Gallagher property adjacent to Martin Edwards Reserve. (Janis Grant)

On a breezy but hot Sunday, August 18, nine KFN members joined leader Peter Good to look for early shorebirds at the Martin Edwards Reserve on Amherst Island. We departed on the 8:30 am ferry, parked at the southeast corner of the property, and made our way slowly through the long grass along the Lake Ontario shoreline. The birding was slow toward the beginning, but butterflies were plentiful! Giant, Tiger, and Black Swallow-



Figure 39: Whimbrel, Martin Edwards Reserve, 18 August 2019. (Anthony Kaduck)

tail; Monarch; Viceroy; Bronzed Copper; and skippers flitted among the wildflowers. Participants also took time to admire moths, damselflies, caterpillars, spiders, Northern Leopard Frogs, and an American Toad. Compared with other years, the ponded areas were quite dry and vegetated, but our group was rewarded with a fleeting glance of a brood of Moorhens (now referred to as Common Gallinule) in one of the wetlands. Along

the shoreline we saw Killdeer, Spotted Sandpiper, and Greater Yellowlegs. Arriving at the sandbar, we were initially disappointed to see that much of it was underwater. That disappointment faded quickly when two Whimbrel were spotted, a rarity for our area at this time of year. Members took turns at the spotting scope to enjoy great views of these large, buffy brown shorebirds with their characteristic long, down-curved bills. A mixed-species flock of Greater and Lesser Yellowlegs and

one small peep (believed to be a Least Sandpiper) circled the point, and a Wilson's Snipe was found hunkered on the opposite shore of the bay. There was a small diversity of waterfowl on the property, along with other typical wetland species. Along the return, mobbing crows alerted several participants to a Great Horned Owl as it flew out from a large willow. In total, 35 species of bird were tallied during this morning outing. The group returned on the 1 pm ferry.

8 Book Reviews

8.1 The Feather Thief

Review by Janis Grant

Johnson, Kirk Wallace (2018) *The Feather Thief: Beauty, Obsession, and the Natural History Heist of the Century* (New York: Viking). \$36 CAD

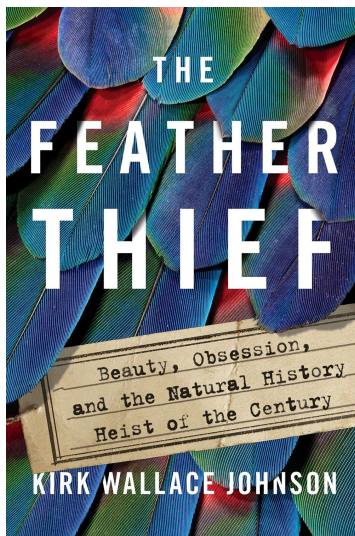


Figure 40: The Feather Thief cover. (Source: Amazon.com)

The Feather Thief is a fascinating true crime story which recounts yet another completely surprising threat to the world's endangered birds. Who would believe that the art of fly tying (by fly fishermen) is so demanding that only real feathers from such rare birds as King Bird of Paradise, Resplendent Quetzal, Blue Chatterer and Banksian Cockatoo may be used. These feathers are required by

Victorian era "recipes," used by the world's best fly tiers. The feathers are sold world wide on an illegal black market worth fortunes. Traders frequently show off their material in what is sometimes referred to as "feather-porn."

The crime was committed at the Tring Museum, an outpost of the British Museum of Natural History, located 40 minutes by train from central London. The Tring Collection is home to one of the world's greatest ornithological collections. It includes Darwin's Finches, whose subtle morphological differences were used to develop his Theory of Evolution. More importantly to this story, however is the fabulous collection of South East Asian and Indonesian birds collected under extremely difficult circumstances by Alfred Russell Wallace, Darwin's co-discoverer of the Theory of Evolution.

On a June evening in 2009, after performing at London's Royal academy of Music, twenty-year-old American flautist Edwin Rist boarded a train which took him to the Tring Museum. Rist had been a champion fly tier throughout his teens and was obsessed by the Victorian art of fly-tying. Breaking into the museum, Risk grabbed hundreds of bird skins, including many collected 150 years earlier by Alfred Russell Wallace, stuffed them into a suitcase and made his escape.

The book not only recounts Risk's crime, its belated discovery by Tring staff, his trial and the

search for the missing birds, but a history of Alfred Russell Wallace's collection, the 19th century feather trade for the fashion industry, a history of the Tring Museum and an account of the underworld of fly tying. Feathers of rare birds are

still of huge value to this widely practiced hobby. Practitioners will go to any lengths to obtain them. Those of us who care about the survival of our rarest species should be aware of this surprising feather trade.

9 Clipped Classics

Excerpts from past issues of The Blue Bill

From 60 years ago ...

From an article entitled, "Summer 1959," by Helen Quilliam from the October, 1959 Blue Bill:

Looking back over the records of the summer of 1959, we find we have only one bird new to our cumulative yearly list and this is probably an early migrant, namely the olive-sided flycatcher. It was a hot humid summer broken only by the occasional thunderstorm, that of Aug. 30 being a particularly violent one. After it, J. D. McIlquham reported that the janitor at Fort Frontenac had swept up a bushel of "sparrows". As hail accompanied this storm this may have been the cause of the disaster, but no other reports of losses at this time were made. A large number of house sparrows frequent the trees of the fort; they may have been the principal species affected.

The long warm days should have meant a successful breeding season. Certainly, the number of phoebes to be seen this autumn seems to be an increase over the last year and the autumn migration has been an excellent one.

A number of interesting nests were found. I had the privilege of watching the growth of a pair of fledging green herons. The nest was about 20 feet up in the top of a thorn tree, well hidden but most loosely constructed. An examination of the nest after the birds had left made one marvel that the nesting had been successful, so frail and impermanent did the nest appear. The fledglings were discovered on July 10, and on July 27 were seen on branches near the nest and a later visit that day showed that they had left the vicinity of the nest entirely. An adult flushed from the top of the tree on June 18 was probably at that time incubating the eggs but the nest was so carefully concealed that its presence was not suspected than.

Several least bitterns were seen at the 401 highway marsh and black-crowned night herons once again used this feeding ground regularly. In July rather large numbers of carp were seen there and the noisy splashing of one of them drove an American bittern from its fishing place. Some three to four families each of blue-winged teal and black duck were raised in the marsh and a wood duck was seen occasionally toward the back of the marsh and may have had a family there. A blue-winged teal leading her family of 11 downy young down the road at Bell's swamp and then into the woods on July 5 was an unforgettable sight.

Hawks continued to be scarce all summer but a family of sparrow-hawks was raised somewhere along the Gore Road and for many mornings in July and early August five could be seen there hunting or just exercising and chasing one another. The only report of a bald eagle during the summer was one seen by Mary L'Estrange on Wolfe Island, July 3.

Upland Plover were reported as being numerous by Walter Lamb. Several observers found killdeer nests: Al Warren and Lew Lowther. A nest was also discovered on the floor of the quarry at Smarts' with four eggs on May 8. From then on the nest was visited each day, and early on the morning of May 25 four downy young were found in the nest. They lay in a tight little circle each facing outwards. They left the nest within a few hours and even on that first day "froze" at one's approach, while the mother frantically tried to lure intruders away. They remained in the quarry only about two days and it is hoped that the female suc-

cessfully piloted them to another place where they reached maturity unharmed.

Art Bell discovered two young great horned owls in July at Bell's swamp and I found three young screech owls with two adults, grey phase, just after they had left the nest. I had not even suspected the nest which had probably been in a large elm, in which there are several holes, on the edge of our property. A neighbour had seen the adult owls in mid-May in this tree. These owls remained in this vicinity for only one day and the body of one of them was found completely stripped of all feathers except for one wing. The body was not damaged nor were there any marks of feeding from it. The feathers could not be found and the neat skinning of this bird still puzzles me. It may be that I had interrupted the work of some predator for at the time when I found it, I noticed quite a disturbance among the other birds present; robins, catbirds and brown thrashers were all scolding.

Ken Edwards found a mourning dove nest with 2 young May 13, but several days later found the nest deserted and empty. I found a flimsy nest with 2 eggs on May 27 but it was also empty and deserted June 2. There were many mourning doves to be seen up the Gore Road from mid-July

to mid-Aug.

A bird which has been appearing once or twice in our records in past years is the Carolina wren. This year we have another record and it appears to be making an extended stay. Dr. G. M. Stirrett first heard it singing in his garden on July 19, and early in August Walter Lamb heard and saw it in his garden on Collingwood St. It has been heard and seen on Stuart St. on a number of occasions and Mrs. Lamb reported that it was still visiting their garden Oct. 7. The Lambs say that it only stays and sings in their garden for brief periods, sometimes for successive days and at other times with appreciable intervals between appearances. All the above locations are in the same part of the city and it would appear that this may be the same wren with a fair-sized "beat". It will be interesting to see just how long it will remain in this vicinity.

Grasshopper and Henslow's sparrows were reported in particularly good numbers this summer. Art Bell reported 3 separate places where he heard singing males and there were at least 3 in the vicinity of the Gore Road. This is an appreciable increase over the numbers reported in previous years of Henslow's sparrows.



Figure 41: Eastern Forktail. (William Depew)



Figure 43: Baltimore Checkerspot. (William Depew)



Figure 45: Gray Tree Frog. (William Depew)

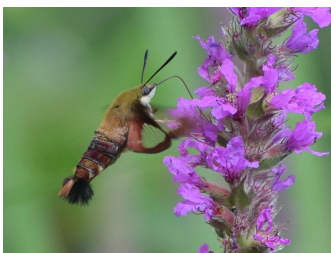


Figure 42: Hummingbird Clearwing. (William Depew)

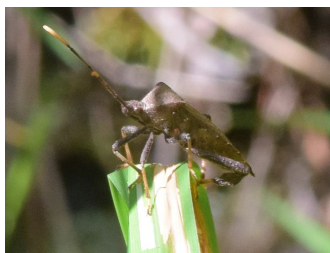


Figure 44: *Acanthocephalo terminalis*. (William Depew)

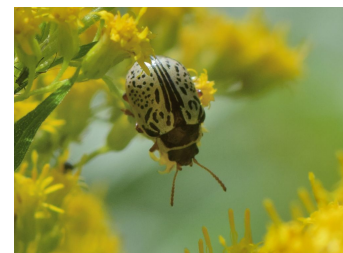


Figure 46: Common Willow Calligrapher Beetle. (William Depew)

Kingston Field Naturalists

Objectives

The Kingston Field Naturalists (KFN) is an active, local club of over 500 members interested in a wide variety of natural history. The objectives of the club are:

- to acquire, record and disseminate knowledge of natural history;
- to stimulate public interest in nature and in the protection and preservation of wildlife and natural habitats; and
- to acquire, receive and hold lands for the purpose of preserving their natural flora and fauna, and to encourage and assist other organizations and individuals to do likewise.

Nature Reserves

The KFN owns properties that are designated as nature reserves.

Helen Quilliam Sanctuary at Otter Lake: A 217 hectare (536 acre) property of mixed forest located in the Canadian Shield in the Township of South Frontenac accessible to members through a trail system..

Martin Edwards Nature Reserve: A 100 hectare (247 acre) property of fields and marshland located on the southeast shore of Amherst Island.

The Sylvester-Gallagher Nature Reserve: An 80 acre (32.4 hectare) parcel of forest and grassland, adjacent to the Martin Edward Reserve.

Conservation and Education

The KFN actively supports conservation efforts. Issues such as park creation, wildlife and habitat protection, and environmental welfare are of on-going concern. The club also makes natural history resources and knowledge available to the community through education programs which include field courses, talks, awards and a loan library.

Be a Contributor!

This edition of The Blue Bill could have contained your article, anecdote, fantastic photo, nature sketch, report, puzzle, quiz, conundrum, cartoon, or other contribution.



(If it did, many thanks!)

Email The Blue Bill (editor@thebluebill.ca) for more information.



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