

2020 - 2021 PECFN BIOTHON
MAPLECROSS COASTLINE RESERVE
Eastern Lake Ontario Coast Natural Area



Prince Edward County
S.M. McKay-Kuja *et al.*

This document may be cited as:

McKay-Kuja, S.M., C. Anderson, D. Beadle, A. Bodman, D. Bree, P.M. Catling, J. Dewey, J. Doubt, P. Fuller, B. Kostiuk, A. Leavens, T. Mason, T. McMullin and K. Thomas. 2022. 2020-2021 PECFN Biothon at the MapleCross Coastline Reserve, Eastern Lake Ontario Coast Natural Area, Prince Edward County, Ontario. Prince Edward County Field Naturalists. 56 pp.

N.B. Photographs of organisms in this report were taken at the study site during the Biothon unless otherwise indicated. Any errors or omissions in the report are solely the responsibility of the first author.

Front cover: Common Ringlet, *Coenonympha californica*. Photo by Brenda Kostiuk, 17 June 2021 at MapleCross Coastline Reserve.

Back cover: Clay-colored Sparrow, *Spizella pallida*. Photo by Paul Jones, 7 June 2021 at MapleCross Coastline Reserve.

2020 - 2021 PECFN BIOTHON at the MapleCross Coastline Reserve, Eastern Lake Ontario Coast Natural Area Prince Edward County, Ontario

McKay-Kuja, S.M., C. Anderson, A. Bodman, D. Beadle, D. Bree, P.M. Catling, J. Dewey, J. Doubt, P. Fuller, B. Kostiuk, A. Leavens, T. Mason, T. McMullin and K. Thomas

On behalf of the Prince Edward County Field Naturalists and sponsors



Table of Contents

INTRODUCTION AND ACKNOWLEDGEMENTS	5
RESULTS	9
Fungi	11
Lichens, by Troy McMullin	12
Mosses and Liverworts, by Jennifer Doubt	13
Vascular Plants	16
Invertebrates:	
Molluscs	24
Spiders and their relatives	25
Dragonflies and Damselflies	25
Grasshoppers	28
Beetles	29
Bees and Wasps	30
Butterflies	31
Moths	35
Flies	40
True Bugs	41
Fishflies	42
Lacewings	42
Vertebrates:	
Fish	43
Reptiles and Amphibians	43
Birds	45
Mammals	52
REFERENCES	53

INTRODUCTION

The Prince Edward County Field Naturalists (PECFN) had planned their seventh annual BioBlitz for 19-20 June 2020 in association with the Prince Edward Point Bird Observatory (PEPtBO) and the South Shore Joint Initiative (SSJI), on the MapleCross Coastline Reserve, a property owned by the Nature Conservancy of Canada (NCC). We decided also to have monthly visits throughout the year to provide more complete documentation of flora and fauna resulting in a Biothon event, *i.e.* an extended survey rather than a short-term snapshot. These observations would be added to the BioBlitz report as an addendum. However, as a result of Covid-19 restrictions established in March, the BioBlitz was cancelled but the Biothon continued.

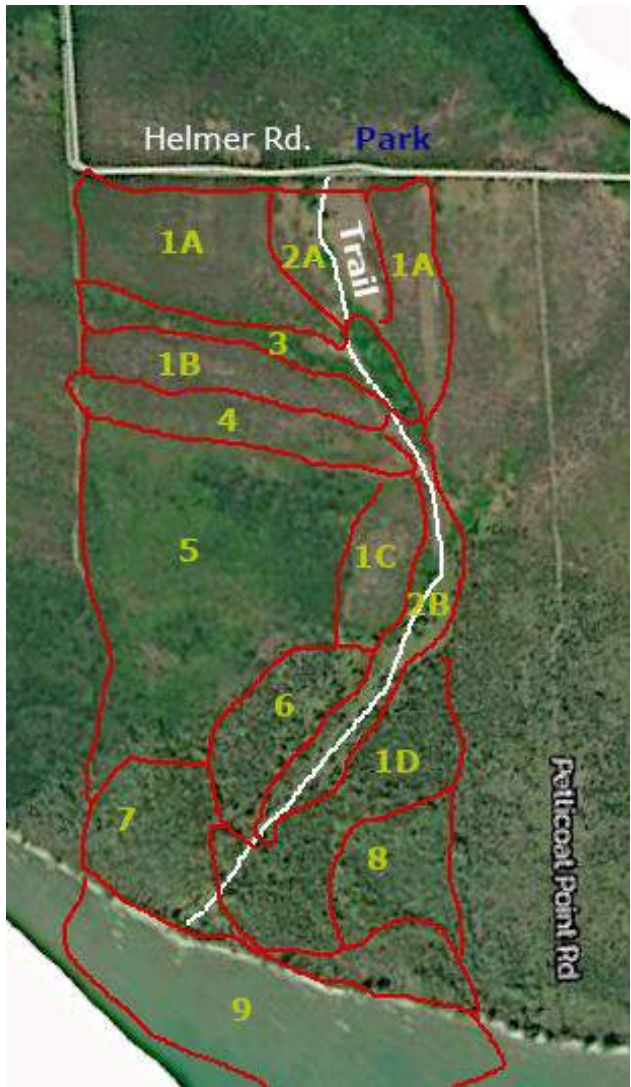
Covid-19 protocols continued into 2021 making a regular BioBlitz impossible for the second time. The month of June was dedicated to a virtual event (without base camp or registration tent) where individuals could visit the site, privately or in small groups. The prime objective was to conduct a biological survey including both experts and non-experts, to document the flora and fauna of this area and give members of the community an opportunity to investigate and discover for themselves the natural values of the study area. iNaturalist was used as a forum, with MapleCross designated as a research project site by NCC.

Participants were provided, via the website, with an information package including maps to the area and various plant communities identified within the area, as well as record sheets to list the species they observed which could be sent directly to iNaturalist or the PECFN mailbox.

LOCATION: The Nature Conservancy of Canada's MapleCross Coastline Reserve is immediately adjacent to the western border of Ostrander Point Crown Land Block. The eastern boundary of the MapleCross property runs just to the west of Petticoat Point Rd. which is within Ostrander Point Crown Land Block. Lake Ontario formed the southern boundary and Helmer Rd. the northern boundary. There is a wooden fence delineating most of the western boundary. The area is centred on 43.8950, -77.0120 PEC.



South Shore of Prince Edward Country with MapleCross Coastline Reserve (red dot).



1. Red Cedar alvar (dry) A,B,C,D
2. Dry meadow/grasses A,B
3. Deciduous thicket with seasonal stream
4. Moist meadow/Ash
5. Ash/Oak savanna
6. Mixed woods, shrubs and thickets
7. Shoreline swamp
8. White Cedar/deciduous woods
9. Beach and Lake

Map of the study area showing habitat zonation for species locations.

The Site: History

Most of the original forest was cut by early settlers to build homes, barns and to create clear land for crops or cattle grazing. By the 1860s most of the forest had been removed. Commercial fishing and farming became more important than logging as a livelihood. The area was being considered for development of industrial turbines in 2013 but was later purchased by the Nature Conservancy of Canada in 2019 to protect the natural landscape.

Previous studies: This area has had one biological inventory which provided some of the basis for NCC acquisition and management (Tracey, 2019). The adjacent property of Ostrander Point Crown Land Block has been studied on several occasions (Bland, 1997; Snetsinger 2001; Taylor, 2011; Anderson and McKay, 2014; Catling et al., 2014). A number of potentially relevant south shore bioblitzes and reports are available on the PECFN and SSJI websites.

Habitats: Habitat zonation is shown on the map on page 6. They include (1) Red Cedar alvar (dry) A, B, C, D; (2) Dry meadow/grasses A, B; (3) Deciduous thicket with seasonal stream; (4) Moist meadow/Ash; (5) Ash/Oak savanna; (6) Mixed woods, shrubs and thickets; (7) Shoreline swamp; (8) White Cedar/deciduous woods; (9) Cobble and shingle beach and Lake.

During the 2021 Biothon conditions were much drier than usual.



Dry meadow/old field in northern portion of MapleCross Coastline Reserve. Photo by Brenda Kostiuk, 17 June 2021.

ACKNOWLEDGEMENTS: The very helpful advice of NCC staff, and especially that of Amanda Tracey, is much appreciated.

The event was organized by Peter Fuller, Amy Bodman, Cheryl Anderson, Amanda Tracey and Sheila McKay-Kuja. Terry Sprague provided helpful advertising on his website. Amy kindly hosted the PECFN gmail site to receive observations. Amanda Tracey set up MapleCross Coastline Reserve as an iNaturalist project site where observations could be deposited.

Peter Fuller, representing the Prince Edward Point Bird Observatory (PEPtBO), prepared our poster, organized registration on an event website he set up, prepared maps and data sheets as well as other information for participants. Peter was a major, driving force in planning.

Some very talented participants came from far away. The involvement of Dr. Troy McMullin and Dr. Jennnifer Doubt, both of the Canadian Museum of Nature in Ottawa, resulted in comprehensive lists of species with details on species of particular interest. Dave Beadle and his wife Katie Thomas came from Toronto and provided an excellent list of moths, as well as many records of other insects and birds. Also, Tom Mason came from Brighton to survey for insects.

The field participants in the monthly visits were Peter Fuller, Cheryl Anderson, Amy Bodman, Sheila McKay-Kuja and Joanne Dewey.

Cheryl Anderson led a South Shore Stroll for a small group on 19 June 2021, as an SSJI event.

Photographs used in this report were taken by David Beadle, Paul Catling, Jessica Daze, Jason Hollanger, Paul Jones, Brenda Kostiuk, and Troy McMullin. All photographs used here were taken in the MapleCross site except that of Jason Hollanger (p. 11).

Many other kinds of help were provided by many other participants. Appreciation is extended to everyone who assisted.

Participants in the 2021 June event with their dates of participation are shown below.

Participants: with dates of visits in June 2021 in brackets:

Cathy Anderson (15)	Jennifer Doubt (24)	Tom Mason (23)
Cheryl Anderson (19, 27)	Danielle Gray (11)	Sheila McKay-Kuja (17, 27, 30)
David Beadle (27, 28)	David Hobbs (19)	Troy McMullin (13)
J. Berthelette (25)	Alice Howard (15)	Pauline Morissette (19)
Jessica Bao ((12)	Claire Howard (15)	MaryAnne Schoenhardt (25)
Amy Bodman (19, 27)	Joanna Howard (15)	Kieran Shepherd (24)
David Bree (29)	Borys Holowacz (19)	Katie Thomas (27, 28)
Mike Carmody (15)	Paul Jones (7)	Amanda Tracey (19)
Paul Catling (17)	Brenda Kostiuk (17)	
Lionel Collier (19)	Abigail Leavens (19,27)	
Jessica Daze May 26, (4)	John Lowry (19)	
Joanne Dewey (27)	Ralph Mann (19)	

RESULTS:

SUMMARY REPORT – The number of species recorded during the Biothons was 726, including Fungi – 1, Lichens – 42, Mosses – 49, Liverworts – 8, Vascular Plants – 211, Molluscs – 4, Spiders – 21, Dragonflies – 13, Butterflies – 33, Moths – 120, Other Insects and Springtails – 104, Fish – 2, Amphibians – 2, Reptiles – 3, Birds – 104, Mammals – 8.

Brief summary of some noteworthy observations:

Of highest significance were the observations of the Blanding's Turtle and Whip-poor-will, both with Threatened Status in Ontario and federally. Three Blanding's turtles were observed in 2021, one young first year and one adult on 7 June and another adult on 13 June; two were seen in 2020, both adults. A Whip-poor-will was heard calling within the Biothon area on the evening of 27 June 2021. This bird was suspected of breeding but no other night surveys were conducted.

Another interesting observation was the breeding of Clay-coloured Sparrows on the property, an unusual species which is uncommon to rare in most of southern Ontario. It has been noted in other areas of the South Shore of PEC (see Charwell Point and Point Petre BioBlitz reports)

Gyalecta fagicola and *Lecanora pseudistera* are interesting species of lichens, both now given SU ranks in the Natural Heritage Information Centre (NHIC) system for Ontario (*i.e.* are under review). The first was formerly regarded as S1 with only three localities reported in the province, while the latter had only a few, and neither have previously been reported from Prince Edward County.

In terms of bryophytes, seven taxa (five mosses and two liverworts) that were documented are tracked by the NHIC (S1-S3). *Weissia muhlenbergiana* (dry alvar) and *Ptychostomum pallescens* (moist roadside) were found on soil, but most rare mosses found in this survey are epiphytes: *Orthotrichum pallens*, *Orthotrichum pumilum*, *Thelia hirtella*, *Frullania bolanderi* and *Cololejeunea biddlecomiae*.

Although no vascular plant Species at Risk were found, an array of interesting restricted species was present including Sartwell's Sedge and many species characteristic of alvars such as Long-leaved Bluets, Fluxweed, Rough False Pennyroyal, Hairy Beardstongue and the rare Limestone Hedge-hyssop. A relatively extensive, periodically wet meadow, dominated by Tufted Hairgrass is a noteworthy alvar feature.

Possibly due to the dry spring conditions relatively few dragonflies, were seen. Paul Catling felt that it was interesting that there was a major flight of Prince Baskettails (35 seen) in the area on June 17 and all were flying, individually, from east to the west, between 1 and 3 PM, although the site was rather removed from where they might have emerged (possibly Bay of Quinte)

Monarchs were seen in good numbers and the resident Juniper Hairstreak was documented. Species diversity of moths was high and many species were recorded that had not been recorded previously on the South Shore by D. Beadle.

As well as the Tufted Hairgrass dominated meadow, another unusual plant community exists in, or close to the study area. It is in the southwest corner of the property and is a moist woodland dominated by older Eastern White Cedars. Some of this community is outside of the surveyed area. This woodland had an understory dominated by ferns (*Dryopteris marginalis*, *Cystopteris bulbifera* and *Polypodium vulgare* on the bases of the White Cedars), also with *Aralia nudicaulis* and *Polygonum biflorum*. This is an unusual plant community for the South Shore. It was not thoroughly investigated and may contain many significant features for the South Shore area.



Wet meadow dominated by Tufted Hairgrass. Photo by Brenda Kostiuk, 17 June 2021.

iNaturalist Information

To access iNaturalist information on MapleCross Coastline Reserve gathered during the biothon use: <https://www.inaturalist.org/projects/maplecross-coastline-reserve>

Most of this information was incorporated into this report but many additional photos are available there.

SPECIES OBSERVED

FUNGI

This rust fungus produces galls on Red Cedar that give rise to orange gelatinous tentacles in a mass up to 10 cm across, and has a complex life cycle using apples and other members of the Rose family as an alternate host.

Table 1. Dry conditions throughout the period were not conducive to conducting a survey for fungi but one species in the area attracted attention.

Pucciniaceae	<i>Gymnosporangium juniperi-virginianae</i>	Cedar Apple Rust
	This stage was common on Red Cedar on the main north-south trail.	



Cedar Apple Rust (*Gymnosporangium juniperi-virginianae*). Photo by Jason Hollanger, North Carolina, CC-BY-2.0.

LICHENS by Troy McMullin

Forty-two species were observed by Troy McMullin with at least one of special interest, *Gyalecta fagicola*. This species was S1 in the last version of the NHIC lichen ranks, as it had been for a long time, but it was recently revised to SU (meaning that its status is under review). It is known from three other localities in Ontario, an historical one in the Toronto area, one in the Ottawa area at a site that has been developed, and one in the Copeland Forest near Barrie. There are two other sites in Canada, one in New Brunswick and one in British Columbia. Of the five previous Canadian sites, two have been lost, which seems to be a good fit for an S1 and N1 species. *Lecanora pseudistera*, is also an interesting species, but it is another one with an SU rank in Ontario. There are only a few reports of it in the province and there are no previous reports in Prince Edward County. The complete report submitted is available from Troy at the Canadian Museum of Nature upon request.

Table 2. Lichens observed and identified by Troy McMullin from a visit on June 13, 2021 showing NHIC's S ranking and habitat description for each species.

Scientific Name	Prov. Ranking	Habitat
<i>Lecanora pseudistera</i>	SU	Saxicolous (non-calcareous)
<i>Peltigera elisabethae</i>	S5	Terricolous
<i>Candelaria concolor</i>	S5	Corticolous on <i>Juniperus virginiana</i>
<i>Evernia mesomorpha</i>	S5	Corticolous on <i>Fraxinus</i>
<i>Physcia millegrana</i>	S5	Corticolous on <i>Juniperus virginiana</i>
<i>Peltigera rufescens</i>	S5	Terricolous
<i>Hyperphyscia adglutinata</i>	S5	Corticolous on <i>Juniperus virginiana</i>
<i>Physciella melanchra</i>	S5	Corticolous on <i>Thuja occidentalis</i>
<i>Lecanora strobilina</i>	S5	Lignicolous on <i>Juniperus virginiana</i>
<i>Phaeophyscia pusilloides</i>	S5	Corticolous on a <i>Crataegus</i> snag
<i>Amandinea punctata</i>	S5	Lignicolous on <i>Juniperus virginiana</i>
<i>Melanelixia subaurifera</i>	S5	Corticolous on a <i>Crataegus</i> snag
<i>Punctelia rudecta</i>	S5	Corticolous on <i>Juniperus virginiana</i>
<i>Lecania naegelii</i>	S4	Corticolous on <i>Juniperus virginiana</i>
<i>Gyalecta fagicola</i>	SU	Corticolous on <i>Juniperus virginiana</i>
<i>Illosporopsis christiansenii</i>	S5	Lichenicolous on <i>Physcia millegrana</i> on <i>Salix</i>
<i>Physconia enteroxantha</i>	S4	Corticolous on <i>Salix</i>
<i>Parmelia sulcata</i>	S5	Corticolous on <i>Fraxinus</i>
<i>Flavoparmelia caperata</i>	S5	Corticolous on <i>Fraxinus</i>
<i>Lecanora thysanophora</i>	S5	Corticolous on <i>Fraxinus</i>
<i>Cladonia ochrochlora</i>	S5	Corticolous on a log
<i>Cladonia magyarica</i>	S4	Terricolous

<i>Physcia stellaris</i>	S5	Corticolous on a deciduous shrub
<i>Chrysothrix caesia</i>	S5	Corticolous on a deciduous shrub
<i>Xanthoparmelia plittii</i>	S4S5	Saxicolous (non-calcareous)
<i>Acarospora fuscata</i>	S5	Saxicolous (non-calcareous)
<i>Peltigera praetextata</i>	S5	Terricolous
<i>Staurothele drummondii</i>	S4	Saxicolous (calcareous)
<i>Ochrolechia arborea</i>	S5	Corticolous on <i>Juniperus virginiana</i>
<i>Candelariella vitellina</i>	S5	Saxicolous (non-calcareous)
<i>Xanthoparmelia cumberlandia</i>	S5	Saxicolous (non-calcareous)
<i>Placynthium nigrum</i>	S5	Saxicolous (calcareous)
<i>Physcia adscendens</i>	S5	Corticolous on <i>Juniperus virginiana</i>
<i>Flavopunctelia flaventior</i>	S5	Corticolous on <i>Juniperus virginiana</i>
<i>Caloplaca feracissima</i>	S5	Saxicolous (calcareous)
<i>Xanthomendoza fallax</i>	S5	Corticolous on <i>Fraxinus</i>
<i>Xanthoria parietina</i>	S5	Corticolous on <i>Fraxinus</i>
<i>Cladonia conista</i>	SU	Terricolous
<i>Cladonia cryptochlorophaea</i>	S4?	Corticolous on the base of a tree
<i>Aspicilia laevata</i>	S4	Saxicolous (non-calcareous)
<i>Lepraria finkii</i>	S5	Corticolous on a <i>Crataegus</i> snag
<i>Protoparmeliopsis muralis</i>	S5	Saxicolous

BRYOPHYTES (MOSES AND LIVERWORTS) by Jennifer Doubt

Although the survey was brief and limited in area, 49 moss taxa and 8 liverwort taxa were recorded by Jennifer Doubt. The site is expected to be much more diverse, with still-to-be documented taxa in all habitats, particularly in the cedar forest in the south-west corner of the property, which received relatively little attention during this visit.

Seven taxa (five mosses and two liverworts) that were documented are tracked by the NHIC. *Weissia muhlenbergiana* (dry alvar) and *Ptychostomum pallescens* (moist roadside) were found on soil, but most rare mosses found in this survey are epiphytes: *Orthotrichum pallens*, *Orthotrichum pumilum* and *Thelia hirtella* were recorded on the trunks of cedar and juniper in the dry alvar habitat; *Frullania bolanderi* was seen on an ash trunk in swampy habitat near the lake shore; *Cololejeunea biddlecomiae* was found on cedar trunks in moist cedar woodland.

One taxon (*Ulota crispula*) that doesn't appear on the NHIC list is likely missing due to recent taxonomic changes. Similarly, *Rosulabryum laevifilum* (listed as *Bryum laevifilium**) is more common than its current status suggests, due to changes in taxonomic concepts. Neither are rare or unexpected species.

The complete report submitted is available from Jennifer at the Canadian Museum of Nature upon request.

Table 3. List of bryophyte species recorded at the NCC MapleCross property on June 24, 2021 by Jennifer Doubt of the Canadian Museum of Nature, with the assistance of Kieran Shepherd. Species that are tracked by the Ontario Natural Heritage Information Centre (2020) are flagged with bold type. Taxa that are marked with an asterisk in the “Ontario status” column have undergone recent taxonomic changes, leading to misleading or missing ranks; these taxa are not new or rare.

<u>Mosses</u>		<u>Ontario status</u>
<u>Scientific Name</u>	<u>English Name</u>	<u>NHIC</u>
	-	-
<u><i>Abietinella abietina</i> (Hedw.) Fleisch.</u>	<u>Wiry Fern Moss</u>	S5
<u><i>Amblystegium serpens</i> (Hedw.) Schimp. in B.S.G.</u>	<u>Jurkatzka's Feather Moss</u>	S5
<u><i>Anomodon attenuatus</i> (Hedw.) Hub.</u>	<u>Slender Anomodon</u>	S5
<u><i>Anomodon rostratus</i> (Hedw.) Schimp.</u>	<u>Long-beaked Anomodon</u>	S5
<u><i>Barbula convoluta</i> Hedw.</u>	<u>Lesser Bird's-claw Beard Moss</u>	S5
<u><i>Barbula unguiculata</i> Hedw.</u>	<u>Prickly Beard Moss</u>	S5
<u><i>Brachythecium</i> sp.</u>	-	-
<u><i>Brachythecium</i> cf. <i>rivulare</i> Schimp. in B.S.G.</u>	<u>River Ragged Moss</u>	S5
<u><i>Brachythecium rutabulum</i> (Hedw.) Schimp. in B.S.G.</u>	<u>Rough-stalked Ragged Moss</u>	S5
<u><i>Brachythecium velutinum</i> (Hedw.) Schimp.</u>	<u>Velvet Ragged Moss</u>	S4
<u><i>Campyliadelphus chrysophyllus</i> (Bridel) Kanda</u>	<u>Bristle Star Moss</u>	S5
<u><i>Campylophyllum hispidulum</i> (Bridel) Hedenas</u>	<u>Tiny Star Moss</u>	S5
<u><i>Ceratodon purpureus</i> (Hedw.) Brid.</u>	<u>Fire Moss</u>	S5
<u><i>Dicranum flagellare</i> Hedw.</u>	<u>Whip Broom Moss</u>	S5
<u><i>Dicranum montanum</i> Hedw.</u>	<u>Mountain Broom Moss</u>	S5
<u><i>Dicranum ontariense</i> Peters.</u>	<u>Ontario Broom Moss</u>	S5
<u><i>Dicranum polysetum</i> Sw.</u>	<u>Wavy-leaved Broom Moss</u>	S5
<u><i>Dicranum scoparium</i> Hedw.</u>	<u>Common Broom Moss</u>	S5
<u><i>Dicranum viride</i> (Sull. & Lesq. in Sull.) Lindb.</u>	<u>Green Broom Moss</u>	S5
<u><i>Drepanocladus aduncus</i> (Hedw.) Warnst.</u>	<u>Knieff's Hook Moss</u>	S5
<u><i>Entodon cladorrhizans</i> (Hedw.) C. Mull.</u>	<u>Flat-stemmed Entodon Moss</u>	S4
<u><i>Entodon seductrix</i> (Hedw.) C. Mull.</u>	<u>Round-stemmed Entodon Moss</u>	S4
<u><i>Eurhynchiastrum pulchellum</i> (Hedwig) Ignatov & Huttunen</u>	<u>Elegant Beaked Moss</u>	S5
<u><i>Fissidens adianthoides</i> Hedw.</u>	<u>Maidenhair Pocket Moss</u>	S5
<u><i>Hedwigia ciliata</i> (Hedw.) P. Beauv.</u>	<u>Ciliate Hedwig's Moss</u>	S5
<u><i>Hygroamblystegium varium</i> (Hedw.) Mönk.</u>	<u>Brookside Feather Moss</u>	S5

<u><i>Hypnum lindbergii</i> Mitt.</u>	<u>Lindberg's Plait Moss</u>	<u>S5</u>
<u><i>Hypnum pallescens</i> (Hedw.) P. Beauv.</u>	<u>Stump Plait Moss</u>	<u>S5</u>
<u><i>Leptodictyum riparium</i> (Hedw.) Warnst.</u>	<u>Riparian Feather Moss</u>	<u>S5</u>
<u><i>Leskea polycarpa</i> Hedw.</u>	<u>Many-fruited Leske's Moss</u>	<u>S4</u>
<u><i>Orthotrichum anomalum</i> Hedw.</u>	<u>Anomalous Bristle Moss</u>	<u>S4</u>
<u><i>Orthotrichum pallens</i> Bruch ex Brid.</u>	<u>Pale Bristle Moss</u>	<u>S1</u>
<u><i>Orthotrichum pumilum</i> Sw.</u>	<u>Dwarf Bristle Moss</u>	<u>S3</u>
<u><i>Orthotrichum stellatum</i> Brid.</u>	<u>Starlike Bristle Moss</u>	<u>S4</u>
<u><i>Plagiomnium ciliare</i> (C. Mull.) T. Kop.</u>	<u>Toothed Leafy Moss</u>	<u>S5</u>
<u><i>Plagiomnium cuspidatum</i> (Hedw.) T. Kop.</u>	<u>Woodsy Leafy Moss</u>	<u>S5</u>
<u><i>Platygyrium repens</i> (Brid.) Schimp. in B.S.G.</u>	<u>Flat-brocade Moss</u>	<u>S5</u>
<u><i>Ptychostomum pallescens</i> (Schleich. ex Schwaegr.) J.R. Spence</u>	<u>Tall-clustered Bryum</u>	<u>S3</u>
<u><i>Pylaisia polyantha</i> (Hedwig) B.S.G.</u>	<u>Many-flowered Pylaisia Moss</u>	<u>S5</u>
<u><i>Bryum laevifilum</i> (Syed) Ochyra</u>	<u>Syed's Bryum</u>	<u>S1*</u>
<u><i>Sciuro-hypnum curtum</i> (Lindb.) Limpr.</u>	<u>Short-leaved Ragged moss</u>	<u>S4</u>
<u><i>Syntrichia ruralis</i> (Hedw.) Web. & Mohr</u>	<u>Hairy Screw Moss</u>	<u>S5</u>
<u><i>Tetraphis pellucida</i> Hedw.</u>	<u>Common Four-toothed Moss</u>	<u>S5</u>
<u><i>Thelia hirtella</i> (Hedw.) Sull. in Sull. & Lesq.</u>	<u>Common Thelia</u>	<u>S2</u>
<u><i>Thuidium delicatulum</i> (Hedw.) Schimp. in B.S.G.</u>	<u>Delicate Fern Moss</u>	<u>S5</u>
<u><i>Thuidium recognitum</i> (Hedw.) Lindb.</u>	<u>Hook-leaved Fern Moss</u>	<u>S5</u>
<u><i>Tortella humilis</i> (Hedw.) Jenn.</u>	<u>Small Twisted Moss</u>	<u>S4</u>
<u><i>Ulota crispula</i> Bruch</u>	<u>Lesser Crisped Pincushion Moss</u>	<u>*</u>
<u><i>Weissia muhlenbergiana</i> (Sw.) W.D. Reese & B.A.E. Lemmon</u>	<u>Muhlenberg's Stubble Moss</u>	<u>S2</u>
-		-
<u>Liverworts</u>	-	-
<u><i>Cololejeunea biddlecomiae</i> (Aust.) Evans</u>	<u>Biddlecome's Pouncewort</u>	<u>S3</u>
<u><i>Frullania bolanderi</i> Aust.</u>	<u>Hairy Scalewort</u>	<u>S2</u>
<u><i>Frullania eboracensis</i> Lehm.</u>	<u>New York Scalewort</u>	<u>S5</u>
<u><i>Syzygiella autumnalis</i> (DC.) Feldberg, Vána, Hentschel & Heinrichs</u>	<u>Autumn Flapwort</u>	<u>S5</u>
<u><i>Lioclaena lanceolata</i> Nees</u>	<u>Long-leaved Flapwort</u>	<u>S4</u>
<u><i>Lophocolea heterophylla</i> (Schrad.) Dumort.</u>	<u>Variable-leaved Crestwort</u>	<u>S5</u>
<u><i>Ptilidium pulcherrimum</i> (G. Weber) Hampe</u>	<u>Tree Fringewort</u>	<u>S5</u>
<u><i>Radula complanata</i> (Linnaeus) Dum.</u>	<u>Flat-leaved Scalewort</u>	<u>S4</u>

VASCULAR PLANTS

Table 4. Vascular Plants for NCC's MapleCross Coastline Reserve observed during 2020 -2021. The list is in approximate classical taxonomic order beginning with ferns and fern allies proceeding through gymnosperms through monocotyledons then dicotyledons, concluding with the Asteraceae. The family, genus, species and common names are taken from the most recent (2021) VASCAN database. Habitat locations, from the map on page 6, are shown in brackets.

FERNS AND FERN ALLIES: EQUISETACEAE – HORSETAIL FAMILY

Equisetum arvense, **Field Horsetail** - edge of swamp (7)

GYMNOSPERMS: CUPRESSACEAE – CYPRESS FAMILY

Juniperus communis, **Common Juniper** – in dry areas (1-6)

Juniperus virginiana, **Eastern Red Cedar** – abundant throughout (1-6)

Thuja occidentalis, **Eastern White Cedar** – in wetter areas, mostly closer to the lake (7,8)

MONOCOTS: TYPHACEAE – CATTAIL FAMILY

Typha latifolia, **Broad-leaved Cattail** – swamp (7)

ALISMATACEAE – WATER PLANTAIN FAMILY

Alisma triviale, **Northern Water-plantain** – ash swamp (7)

POACEAE – GRASS FAMILY

Agrostis stolonifera, **Creeping Bentgrass** – swamp (7)

Bromus inermis ssp. *inermis*, **Smooth Brome** -along roadsides and trail (1,2)

Bromus commutatus, **Hairy Brome** – roadsides (1A)

Calamagrostis canadensis var. *canadensis*, **Bluejoint Reedgrass** -in wet ground (7)

Dactylis glomerata, **Orchard Grass** – in open areas (1, 2)

Deschampsia cespitosa ssp. *cespitosa*, **Tufted Hairgrass** – wet meadow following stream (4)

Elymus repens, **Quackgrass** (=Agropyron repens)- roadsides and meadows

Elymus virginicus var. *virginicus*, **Virginia Wildrye** – swamp (7,8)

Glyceria striata var. *stricta*, **Fowl Mannagrass** - swamp (7)

Leersia oryzoides, **Rice Cutgrass** (7)

Lolium arundinaceum, **Tall Ryegrass** – roadsides and meadows (1A)

Panicum capillare, **Common Panicgrass** – in trail tracks

Panicum philadelphicum, **Philadelphia Panicgrass** – dry open ground

Phalaris arundinacea, **Reed Canarygrass** – swamp (7)

Phleum pratense, **Common Timothy** – common (1,2)

Poa compressa, **Flat-stemmed Bluegrass** – dry ground (1,2,6)

Poa pratensis ssp. *pratensis*, **Kentucky Bluegrass** – dry meadows

Sporobolus vaginiflorus, **Sheathed Dropseed** – sides of trail (1C,2B)

CYPERACEAE – SEDGE FAMILY

Carex aurea, **Golden-fruited Sedge** – wet ditch and wet meadow
Carex cristatella – west margin
Carex crawei, **Crawe Sedge** – patches in open woods
Carex granularis – wet roadside
Carex pellita, **Woolly Sedge** – along temporary stream
Carex sartwellii, **Sartwell's Sedge** – western edge near temporary stream
Carex vulpinoidea, **Fox Sedge** – ditches along trail & west side
Eleocharis compressa, **Flat-stemmed Spikerush** – wet depressions
Eleocharis palustris, **Common Spikerush** – Tufted Hairgrass meadow
Scirpus atrovirens, **Dark-green Bulrush** – roadside (1A)

JUNCACEAE – RUSH FAMILY

Juncus bufonius, **Toad Rush** – along trail
Juncus dudleyi, **Dudley's Rush** – wet roadside

ASPARAGACEAE – ASPARAGUS FAMILY

Maianthemum stellatum, **Star-flowered False Solomon's Seal** (6)

POTAMOGETONACEAE – PONDWEED FAMILY

Stuckenia pectinata, **Sago Pondweed** – limestone pavement in lake (9)

IRIDACEAE – IRIS FAMILY

Iris virginica, **Southern Blue Flag** – swamp (7) (photo-iNaturalist)
Sisyrinchium montanum, **Blue-eyed Grass** – western side along temporary stream

ORCHIDACEAE – ORCHID FAMILY

Epipactis helleborine, **Broad-leaved Helleborine** – along trail near swamp (7)

DICOTS: SALICACEAE – WILLOW FAMILY

Populus balsamifera, **Balsam Poplar** – close to swamp
Populus deltoides ssp. *deltoides*, **Eastern Cottonwood** – along beach (9)
Populus tremuloides, **Trembling Aspen** – in areas with thickets
Salix fragilis, **Crack Willow**, beach, tall tree (9)
Salix cf. *petiolaris*, **Meadow Willow** – in thickets with Prickly Ash and dogwoods

BETULACEAE – BIRCH FAMILY

Ostrya virginiana, **Eastern Hop-hornbeam** - uncommon (5,6)

FAGACEAE – BEECH FAMILY

Quercus macrocarpa, **Mossy-cup Oak** – large trees and many seedlings, throughout

ULMACEAE – ELM FAMILY

Ulmus americana, **White Elm** – seedlings along roadside & swamp (1A,7)

URTICACEAE – NETTLE FAMILY

Boehmeria cylindrica, **Small-spike False Nettle** – swamp (7)

POLYGONACEAE – KNOTWOOD FAMILY

Persicaria lapathifolia, **Pale Smartweed** – swamp and beach shore (9)

Persicaria hydropiperoides, **False Water-pepper** – swamp (7)

Persicaria maculosa, **Spotted Lady's thumb** – swamp (7)

Rumex crispus, **Curled Dock** – ditches and wet areas along trail

PORTULACACEAE – PURSLANE FAMILY

Portulaca oleracea, **Common Purslane** – dry open areas

CARYOPHYLLACEAE – PINK FAMILY

Cerastium arvense ssp. *arvense*, **Field Chickweed** – open areas

Moehringia lateriflora, **Grove Sandwort** – in trail tracks

Silene vulgaris, **Bladder Campion** – roadside and meadows (1,2)

Stellaria longifolia, **Long-leaved Starwort** – swamp (7)

RANUNCULACEAE - BUTTERCUP FAMILY

Anemonastrum canadense, **Canada Anemone** – in shade near thickets or wetter areas (6)

Anemone cylindrica, **Long-headed Anemone** – in open dry areas (1C,2B)

Aquilegia canadensis, **Red Columbine** – a few plants with Geraniums and Canada Anemones

Ranunculus acris, **Common Buttercup** – common in open areas

Ranunculus fascicularis, **Early Buttercup** – infrequent along trail in northern half

Ranunculus sceleratus, **Cursed Buttercup** – along trail in swamp (7)

BRASSICACEAE – MUSTARD FAMILY

Alliaria petiolata, **Garlic Mustard**

Barbarea vulgaris, **Bitter wintercress** – roadside (1A)

Berteroa incana, **Hoary alyssum** – roadside and trail

Capsella bursa-pastoris, **Common Shepherd's Purse** – along trail

Thlaspi arvense, **Field Pennycress** – along trail

GROSSULARIACEAE – GOOSEBERRY FAMILY

Ribes cynosbati, **Eastern Prickly Gooseberry**- near swamp (7)

Ribes hirtellum, **Swamp Gooseberry** – moist areas with thickets (3. 7)

Ribes aureum var. *villosum*(=*R.odoratum*), **Buffalo Currant** – covers acre near Lilacs (1Awest)

ROSACEAE – ROSE FAMILY

Amelanchier sanguinea var. *sanguinea*, **Round-leaved Serviceberry** (6)

Crataegus sp., **Hawthorn** sp. - thickets

Fragaria vesca, **Woodland Strawberry** - common

Fragaria virginiana, **Wild Strawberry** – everywhere

Geum canadense, **Canada Avens** – thickets near swamp (7)

Malus pumila, **Common Apple** – one large tree

Physocarpus opulifolius, **Eastern Ninebark** – wetter areas

Potentilla anserina, **Silverweed** – near lakeshore (9)
Potentilla argentea, **Silvery Cinquefoil** – along trail
Potentilla recta, **Sulphur Cinquefoil** – beside trail
Prunus virginiana, **Choke Cherry** – fairly frequent
Pyrus communis, **Common Pear** – single tree
Rosa blanda, **Smooth Rose** – frequent in open areas
Rosa palustris, **Swamp Rose** – in wetter areas
Rosa rubiginosa (= *R. eglanteria*), **Sweetbrier Rose** – in meadows
Rubus idaeus, **Red Raspberry** - thickets
Rubus occidentalis, **Black Raspberry** – swamp (7)
Spiraea alba, **White Meadowsweet** – common in wet areas

FABACEAE – PEA OR BEAN FAMILY

Amphicarpaea bracteata, **American Hog Peanut** – edge of swamp (7)
Lathyrus palustris, **Marsh Vetchling** – one plant along trail in swamp (7)
Lotus corniculatus, **Garden Birds-foot Trefoil** – common in open areas
Medicago lupulina, **Black Medic** – common in open areas
Medicago sativa, **Alfalfa** – edge of meadow
Melilotus albus, **White Sweet-clover** - meadows
Melilotus officinalis, **Yellow Sweet-clover** - meadows
Trifolium hybridum, **Alsike Cover** - meadows
Trifolium pratense, **Red Clover** – open meadows
Trifolium repens, **White Clover** – open meadows
Vicia cracca, **Tufted Vetch** – roadside, meadows

OXALIDACEAE – WOOD SORREL FAMILY

Oxalis stricta, **European Wood-sorrel** - trail

GERANIACEAE – GERANIUM FAMILY

Geranium maculatum, **Spotted Geranium** – under Red Cedars (6)
Geranium robertianum, **Herb-Robert** – beach (9)

RUTACEAE – RUE FAMILY

Zanthoxylum americanum, **Northern Prickly Ash** – abundant everywhere

ANACARDIACEAE – CASHEW FAMILY

Rhus aromatica, **Fragrant Sumac**- throughout except swamp
Rhus typhina, **Staghorn Sumac** - roadside
Toxicodendron radicans, **Poison Ivy** – infrequent along trail

CELASTRACEAE – STAFF-TREE FAMILY

Celastrus scandens, **Climbing Bittersweet** – climbing over deciduous trees

SAPINDACEAE – SOAPBERY FAMILY

Acer negundo, **Manitoba Maple** – near thickets
Acer rubrum, **Red Maple** – swamp (7)

Acer saccharinum, **Silver Maple** – swamp (7)

Acer saccharum, **Sugar Maple** – (6)

BALSAMINACEAE – TOUCH-MET-NOT FAMILY

Impatiens capensis, **Spotted Jewelweed** – ash swamp (7)

RHAMNACEAE – BUCKTHORN FAMILY

Rhamnus cathartica, **European Buckthorn** – throughout

CANNABACEAE – HEMP FAMILY

Humulus lupulus, **Common Hop**- along roadside, west of trail, north of Buffalo Currants (1A)

VITACEAE – GRAPE FAMILY

Parthenocissus vitacea, **Thicket Creeper** – thickets

Vitis riparia, **Riverbank Grape** (7,9)

TILIACEAE – LINDEN FAMILY

Tilia americana, **Basswood** – (6)

HYPERICACEAE – ST. JOHN'S-WORT FAMILY

Hypericum perforatum, **Common St. John's-wort** – throughout in open areas

ELEAGNACEAE – OLEASTER FAMILY

Shepherdia canadensis, **Soapberry** - (1C)

VIOLACEAE – VIOLET FAMILY

Viola sororia, **Woolly Blue Violet** – uncommon, edge of wet meadow and Red Cedars (4)

LYTHRACEAE – LOOSESTRIFE FAMILY

Lythrum salicaria, **Purple Loosestrife** – in ditch along road (1A)

ONAGRACEAE – EVENING PRIMROSE FAMILY

Circaea canadensis, **Broad-leaved Enchanter's Nightshade** – (6,7)

Ludwigia palustris, **Marsh Seedbox** – swamp (7)

Oenothera biennis, **Common Evening-primrose** – roadsides, fields and beach

APIACEAE – CARROT FAMILY

Cicuta bulbifera, **Bulbous Water-hemlock** – swamp (7)

Daucus carota, **Wild Carrot** – along trail and in openings

Pastinaca sativa, **Wild Parsnip** – infrequent in open fields and wet meadow (4)

Sanicula marilandica, **Maryland Sanicle** - iNaturalist

Sium suave, **Common Water-parsnip** – swamp (7)

Zizia aurea, **Golden Alexanders** (see photo)

CORNACEAE – DOGWOOD FAMILY

Cornus obliqua, **Silky Dogwood** – common

Cornus racemosa, **Grey Dogwood** – common
Cornus sericea, **Red-osier Dogwood** – edge of swamp (7)



Golden Alexanders (left) photographed by Jessica Daze on 26 May 2021, iNaturalist 131957009.
Creeping Yellow Loosestrife (right) photographed by Brenda Kostiuk on 13 June 2020.

PRIMULACEAE – PRIMROSE FAMILY

Lysimachia ciliata, **Fringed Yellow Loosestrife** – swamp (7)
Lysimachia nummularia, **Creeping Yellow Loosestrife** – swamp (7)
Lysimachia terrestris, **Swamp Yellow Loosestrife** – wet meadow with Tufted Hairgrass (4)

OLEACEAE – OLIVE FAMILY

Fraxinus americana, **White Ash** – uncommon but at least one mature tree
Fraxinus pennsylvanica, **Green Ash** – common in wet areas throughout
Syringa vulgaris, **Common Lilac** – near road, probably planted (1A)

APOCYNACEAE – DOGBANE FAMILY

Apocynum cannabinum, **Hemp Dogbane** – very common in Tufted Hairgrass meadow (4)
Asclepias incarnata, **Swamp Milkweed** – in wet areas (3,4,7)
Asclepias syriaca, **Common Milkweed** – common in mesic to dry areas
Vincetoxicum rossicum, **European Swallowwort** – infrequent in and to edge of trail (2B)

CONVOLVULACEAE – MORNING GLORY FAMILY

Convolvulus arvensis, **Field Bindweed** (2A)

POLEMONIACEAE – PHLOX FAMILY

Phlox divaricata, **Wild Blue Phlox** – (6)

BORAGINACEAE – BORAGE FAMILY

Echium vulgare, **Common Viper's-bugloss** – frequent in open dry areas

VERBENACEAE – VERVAIN FAMILY

Verbena hastata, **Blue Vervain** – swamp (7)

Verbena simplex, **Narrow-leaved Vervain** – infrequent in trail and on west side

LAMIACEAE – MINT FAMILY

Clinopodium vulgare, **Wild Basil** – common, woods and edges

Hedeoma hispida, **Rough False Pennyroyal** – open areas on moss

Leonurus cardiaca, **Common Motherwort** – edge of swamp (7)

Lycopus americanus, **American Waterhorehound** - swamp (7)

Mentha arvensis, **Field Mint** – wet areas (7)

Monarda fistulosa, **Wild Bergamot**, abundant in open areas along trail

Nepeta cataria, **Catnip** – fields and roadsides (2A)

Prunella vulgaris ssp. *vulgaris*, **Common Heal-all** – common along trail and roadside

Scutellaria lateriflora, **Mad-dog Skullcap** (7)

Scutellaria parvula, **Small Skullcap** – in trail and on western edge

Teucrium canadense, **Canada Germander** – swamp (7)

Trichostema brachiatum, **Fluxweed** – open dry areas

SOLANACEAE – NIGHTSHADE FAMILY

Solanum dulcamara, **Bittersweet Nightshade** – marsh and beach (7,9)

SCROPHULARIACEAE – FIGWORT FAMILY

Verbascum thapsus, **Common Mullein** – in open areas including beach

PLANTAGINACEAE – PLANTAIN FAMILY

Chaenorhinum minus, **Dwarf Snapdragon** – in trail tracks

Gratiola quartermantiae, **Limestone Hedge-hyssop** – in trails

Penstemon hirsutus, **Hairy Beardtongue** – along western edge

Plantago lanceolata, **English Plantain** – along and in trail

Plantago major, **Common Plantain** – along and in trail

Veronica scutellata, **Marsh Speedwell** – swamp (7)

Veronica peregrina – **Purslane Speedwell** - trail

RUBIACEAE – MADDER FAMILY

Galium boreale, **Northern Bedstraw** – wet woods and thickets

Galium tinctorium, **Dyer's Bedstraw** – swamp (7)

Houstonia longifolia, **Long-leaved Bluets** – western border and west side of trail (4)

VIBURNACEAE – VIBURNUM FAMILY

Sambucus canadensis, **Common Elderberry** – near swamp (7)

Viburnum lentago, **Nannyberry** – wet areas (3,4,7)

Viburnum rafinesquianum, **Downy Arrowwood** - thickets

CAPRIFOLIACEAE – HONEYSUCKLE FAMILY

Dipsacus fullonum, **Common Teasel** – dry meadows

Lonicera dioica, **Limber Honeysuckle** – at least 2 or 3 locations west of trail

Lonicera tatarica, **Tartarian Honeysuckle** – several locations near trail

Triosteum aurantiacum, **Orange-fruit Horse-gentian** - iNaturalist

CAMPANULACEAE – HAREBELL FAMILY

Lobelia spicata, **Pale-spike Lobelia** - June 29/21

ASTERACEAE – ASTER FAMILY

Achillea millefolium var. *millefolium*, **Common Yarrow** – open areas

Ambrosia artemisiifolia, **Common Ragweed** – roadsides and open dry areas

Antennaria neglecta, **Field Pussytoes** – open areas

Arctium lappa, **Great Burdock** - beach

Bidens frondosa, **Devil's Beggar-ticks** – wet areas (7)

Bidens cernua, **Nodding Beggarticks** – swamp (7)

Cichorium intybus, **Wild Chicory** – roadside and infrequent in openings

Cirsium vulgare, **Bull Thistle**, infrequent

Erigeron philadelphicus, **Philadelphia Fleabane**, edge of trail

Eupatorium perfoliatum, **Common Boneset** – in wet meadow (6)

Helianthus divaricatus, **Woodland Sunflower**- in shade of Cedars (6)

Leucanthemum vulgare, **Oxeye Daisy** – frequent in open areas

Pilosella piloselloides ssp. *praealta*, **King Devil Hawkweed** – in openings

Solidago canadensis, **Canada Goldenrod** – roadside and near temporary stream

Solidago juncea, **Early Goldenrod** – roadside, thicket edges and near temporary stream

Solidago nemoralis, **Grey-stemmed Goldenrod** – common, dry open areas

Sonchus oleraceus, **Common Sow-thistle** - meadows

Symphyotrichum cordifolium, **Heart-leaved Aster** – openings

Symphyotrichum ericoides, **White Heath Aster** - openings

Symphyotrichum lateriflorum, **Calico Aster** – beside trail

Symphyotrichum lanceolatum spp. *lanceolatum*, **White Panicked Aster** (7)

Symphyotrichum novae-angliae, **New England Aster** – meadows and openings

Symphyotrichum pilosum var. *pilosum*, **Old Field Aster** – along trail

Symphyotrichum urophyllum, **Arrow-leaved Aster** – (1C, 1D)

Taraxacum officinale, **Common Dandelion** – open areas

Tragopogon dubius, **Yellow Goatsbeard** – roadside and meadows

Tragopogon pratensis, **Meadow Goatsbeard** – roadside and meadows

INVERTEBRATES:

In the following lists, within major groups, families and species are arranged in alphabetical order by scientific name. Common names and locations are indicated when available.

Identification, in some cases, is only to the family or genus.

Bivalves and Snails, Molluscs

The *Anguispira* and *Neohelix* were found in the cedar woodland in the southwest corner of the area while the other two species listed below were associated with temporary streams and vernal pools.

Table 5. Molluscs observed in the MapleCross Coastline Reserve during June 2021 with notes on location (according to habitat map) and occurrence.

Freshwater Bivalves	<i>Pisidium cf. casertanum</i>	Ubiquitous Fingernail Clam
Terrestrial and Freshwater Snails	<i>Stagnicola elodes</i>	Common Stagnicola
Terrestrial and Freshwater Snails	<i>Anguispira alternata</i>	Tiger Snail
Terrestrial and Freshwater Snails	<i>Neohelix albolabris</i>	Eastern Whitelip



Peppered Jumping Spider photographed on 27 June 2021 at MapleCross Coastline Reserve by Dave Beadle.

Spiders and Ticks – Arachnida

Table 6. Spiders and their allies observed in the MapleCross Coastline Reserve during June 2021 with notes on location (according to habitat map) and occurrence. Due to the very hot, dry conditions, fewer spiders were active and observed than expected.

Family	Scientific Name	Common Name	Location where found and notes
Ananeidae	<i>Larinioides cornutus</i> <i>Neoscona cf. crucifera</i>	Furrow orbweaver	2B several webs seen damaged by wind 5 all juveniles, so difficult to ID
Gnaphosidae	<i>Zelotes</i> sp.	Black ground spider	1A running in grass in damp area
Linyphiidae	<i>Nerienne radiata</i>	Filmy dome spider	7 female on web, not so common
Lycosidae	<i>Paradosa lapidicina</i>	Stone spider	9 common on beach
	<i>Paradosa milvana</i>	Shore spider	9 common on beach and in zebra mussel shells
Philodromidae	<i>Tibellus oblonga</i>	Oblong running crab spider	5
Pisauridae	<i>Pisaurina mira</i>	Nurseweb spider	1A found guarding eggs
Salticidae	<i>Eris militaris</i>	Bronze jumping spider	
	<i>Hypselistes florens</i>	Splendid dwarf spider	5
	<i>Parapidippus aurantius</i>	Emerald Jumper	5 adult female showing no green
	<i>Pelegrina galathea</i>	Peppered jumping spider	2B female guarding egg sac
	<i>Pelegrina proterva</i>		5
	<i>Phidippus clarus</i> <i>Tutelina elegans</i>	Striped tufted jumping spider Thin-spined Jumping spider	
Tetragnathidae	<i>Tetragnatha laboriosa</i>	Silver Long-jawed orbweaver	5
	<i>Tetragnatha straminea</i>	Slender long-jawed orbweaver	5
Therididae	<i>Latrodectus variolus</i>	Black widow spider	
Thomisidae	<i>Misumena vatia</i>	Goldenrod crab spider	-see iNaturalist for photo
	<i>Xysticus elegans</i>	Elegant crab spider	2B adult female on branch
ORDER IXODIDA			
Ixodidae	<i>Ixodes scapularis</i>	Black-legged Tick	5 one female found crawling on arm

Dragonflies and Damselflies - ODONATA

In all, 13 species of Odonates were recorded at the site (11 dragonflies and 2 damselflies). Possibly due to the dry spring conditions relatively few dragonflies were seen. Paul Catling felt that it was interesting that there was a major flight of Prince Basketails (35 seen) in the area on 17 June 2021 and all were flying, individually, from east to the west, between 1 and 3 PM, although the site was rather removed from where they might have emerged (Bay of Quinte). Also on this date, a single Black-tipped Darner may have been an early record for this species. On 31 August 2020, several of the many White-faced Meadowhawks were flying in tandem.



Black-tipped Darner photographed at MapleCross Coastline Reserve on 17 June 2021 by Paul Catling.

Table 7. List of Dragonflies and Damselflies recorded during the MapleCross Coastline Reserve Biothon 2020 – 2021, in alphabetical order according to species.

Scientific Name	Common Name	Family	Date	No.
<i>Aeshna constricta</i>	Lance-tipped Darner	AESHNIDAE	31 July 2020	1
<i>Aeshna constricta</i>	Lance-tipped Darner	AESHNIDAE	31 Aug 2020	1
<i>Aeshna constricta</i>	Lance-tipped Darner	AESHNIDAE	29 Aug 2021	1
<i>Aeshna tuberculifera</i>	Black-tipped Darner	AESHNIDAE	17 Jun 2021	1
<i>Anax junius</i>	Green Darner	AESHNIDAE	29 Jun 2020	1
<i>Anax junius</i>	Green Darner	AESHNIDAE	9 Oct 2020	5
<i>Anax junius</i>	Green Darner	AESHNIDAE	4 Sep 2021	3

<i>Celithemis eponina</i>	Halloween Pennant	LIBELLULIDAE	29 Jun 2020	1
<i>Celithemis eponina</i>	Halloween Pennant	LIBELLULIDAE	31 July 2020	1
<i>Celithemis eponina</i>	Halloween Pennant	LIBELLULIDAE	27 Jun 2021	1
<i>Epitheca cynosura</i>	Common Baskettail	CORDULIIDAE	29 Jun 2020	1
<i>Epitheca cynosura</i>	Common Baskettail	CORDULIIDAE	17 Jun 2021	10
<i>Epitheca princeps</i>	Prince Baskettail	CORDULIIDAE	17 Jun 2021	35*
<i>Epitheca princeps</i>	Prince Baskettail	CORDULIIDAE	27 Jun 2021	2
<i>Ischnura verticalis</i>	Eastern Forktail	COENAGRIONIDAE	13 Jun 2020	1
<i>Libellula pulchella</i>	Twelve-spotted Skimmer	LIBELLULIDAE	31 July 2020	1
<i>Libellula pulchella</i>	Twelve-spotted Skimmer	LIBELLULIDAE	31 Aug 2020	2
<i>Libellula pulchella</i>	Twelve-spotted Skimmer	LIBELLULIDAE	27 Jun 2021	1
<i>Libellula pulchella</i>	Twelve-spotted Skimmer	LIBELLULIDAE	4 Sep 2021	1
<i>Libellula semifasciata</i>	Painted Skimmer	LIBELLULIDAE	29 Jun 2020	many
<i>Nehalennia irene</i>	Sedge Sprite	COENAGRIONIDAE	29 Jun 2020	1
<i>Pachydiplax longipennis</i>	Blue Dasher	LIBELLULIDAE	31 Aug 2020	1
<i>Sympetrum obtrusum</i>	White-faced Meadowhawk	LIBELLULIDAE	31 Aug 2020	many
<i>Sympetrum</i> sp.	Meadowhawk sp.	LIBELLULIDAE	31 Jul 2020	1
<i>Tamea lacerata</i>	Black Saddlebags	LIBELLULIDAE	31 Jul 2020	1
<i>Tamea lacerata</i>	Black Saddlebags	LIBELLULIDAE	31 Aug 2020	2
<i>Tamea lacerata</i>	Black Saddlebags	LIBELLULIDAE	4 Sep 2021	1



Lance-tipped Darner photographed at MapleCross Coastline Reserve on 29 August 2020 by Paul Catling.

Grasshoppers and Crickets - ORTHOPTERA

Table 8. Grasshoppers and Crickets seen during the biothon, mainly during June 2020 and 2021.

Family	Scientific Name	Common Name
Acrididae	<i>Dissosteira carolina</i>	Carolina Locust (July 31 and Aug. 31/20)
	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
	<i>Chortofagus veridifasciata</i>	Green-striped Grasshopper
Gryllidae	<i>Gryllus veletis</i>	Spring Field Cricket
Tetrigidae	<i>Tetrix subulata</i>	Slender Pygmy Grasshopper (7) June 13/20)
	<i>Tettigidea lateralis lateralis</i>	Sedge Pygmy Grasshopper (7) (June 13/20)



Chortofagus veridifasciata photographed at MapleCross Coastline Reserve on 17 June 2021 by Paul Catling.

Beetles - COLEOPTERA

Table 9. Beetles observed at MapleCross Coastline Reserve, primarily during June 2021 unless otherwise noted. Family, scientific name and common names are given unless a determination to a species or genus was not possible. Habitat locations are in brackets when recorded.

Buprestidae	<i>Agrilus cuprescens</i>	Rose Stem Girdler
	<i>Agrilus cyanescens</i>	Metallic Wood-boring Beetle
Cantharidae	<i>Cantharis rufa</i>	Soldier Beetle
	<i>Podabrus flavicollis</i>	Yellow-necked Soldier Beetle (5)
Carabidae	<i>Agonum</i> sp.	Ground Beetle
	<i>Amphasia sericea</i>	Ground Beetle
	<i>Anisodactylus discoideus</i>	Ground Beetle
	<i>Anisodactylus sanctaecrucis</i>	Ground Beetle
	<i>Brachinus</i> sp.	Bombardier Beetle
	<i>Cicindela sexguttata</i>	Six-spotted Tiger Beetle – June 29/20
	<i>Chlaenius tricolor</i>	Ground Beetle
	<i>Harpalus</i> sp.	Ground Beetle



Round-neck Sexton Beetle (left) and Round-necked Apple Tree Borer (right) photographed at MapleCross Coastline Reserve on 27 June 2021 by Dave Beadle.

Lebia viridis
Paraclivina bipustulata

Flower Lebia Beetle
 Two-spot Slope-rumped Beetle

	<i>Poecilus chalcites</i>	Ground Beetle
	<i>Stenolophus lecontei</i>	Leconte's Seedcorn Beetle
	<i>Stenolophus ochropezus</i>	Ground Beetle
	<i>Tachys proximus</i>	Ground Beetle
Cerambycidae	<i>Saperda candida</i>	Round-necked Apple Tree Borer
	<i>Tetraopes tetrophthalmus</i>	Red Milkweed Beetle – (1A,1B,2B)
Chrysomelidae	<i>Disonycha procera</i>	Flea Beetle
Coccinellidae	<i>Coccinella septempunctata</i>	Seven-spotted Lady Beetle
	<i>Harmonia axyridis</i>	Asian Lady Beetle
Curculionidae		True Weevils
	<i>Curculio</i> sp.	Nut and Acorn Weevils
Dytiscidae	<i>Dytiscus dauricus</i>	Predaceous Diving Beetle
Elateridae	<i>Agriotes</i> sp.	Click Beetle
	<i>Ampedus areolatus</i>	Click Beetle
	<i>Melanotus</i> sp.	Click Beetle
Hydrophilidae	<i>Cymbiodyta bifidus</i>	Water Scavenger Beetle
Lampyridae	<i>Photinus</i> sp.	Firefly Beetle
	<i>Pyropyga decipiens</i>	Firefly Beetle
Mordellidae	<i>Mordella atrata</i>	Tumbling Mourner Flower Beetle
Scarabaeidae	<i>Phyllophaga</i> sp.	June Beetle
	<i>Polyphylla variolosa</i>	Variiegated June Beetle
Scirtidae		Marsh Beetle
Siliphidae	<i>Nicrophorus orbicollis</i>	Roundneck Sexton Beetle
Staphylmidae	<i>Homaeotarsus bicolor</i>	Rove Beetle
	<i>Lobrathium grande</i>	Rove Beetle
Tenebrionidae		Darkling Beetles

Bees, Wasps and Ants - HYMENOPTERA

Table 10. Bees, Wasps and Ants mainly observed during June 2021 with family, scientific name and common name listed whenever possible.

Apidae	<i>Bombus</i> sp.	Bumblebee
Colletidae	<i>Hylaeus modestus</i>	Modest Masked Bee
Formicidae	spp.	Ants
	<i>Formica exsectoides</i>	Allegheny Mountain Ant
Halictidae	<i>Agapostemon</i> sp.	Striped Sweat Bee
	<i>Dialictus</i> sp.	Metallic Sweat Bee
Pompilidae		Spider Wasps

Butterflies - LEPIDOPTERA

Thirty-three species of butterflies were recorded during visits in 2020-2021. The Juniper Hairstreak, an unusual species restricted to open Red Cedar woodlands, was observed by a group of surveyors on 27 June 2021. It was also recorded in 2019, during the Hudgin-Rose BioBlitz, east of Ostrander Point Crown Land Block. On 31 July 2020, many Giant Swallowtails were observed nectaring on Swamp Milkweed flowers in the swamp near Lake Ontario while on Aug. 31, 2020, many Monarch caterpillars were seen. There is some confusion with Northern and Summer Azures (see Schmidt and Layberry, 2016) but on 29 June 2021, D. Bree suspected he saw a summer brood of Northern Azure since so many in the dogwood groves looked fresh. A Red Admiral was seen nectaring on Ninebark flowers on 23 June 2021 when the Long Dash Skipper was the most common butterfly. When locations are reported in the table below, as per the habitat map provided in the introduction, they are shown in brackets after the common name.



Black Swallowtail photographed at MapleCross Coastline Reserve on 7 June 2021 by Paul Jones.

Table 11. Butterflies observed during 2020 - 2021 at MapleCross Coastline Reserve with habitat location in brackets and number of individuals observed on specific dates.

Scientific Name	Common Name	Family	Date	No.
<i>Papilio cresphontes</i>	Giant Swallowtail	PAPILIONIDAE	31 July 2020	7+
<i>Papilio glaucus glaucus</i>	Eastern Tiger Swallowtail	PAPILIONIDAE	27 June 2021	2

<i>Papilio polyxenes</i>	Black Swallowtail	PAPILIONIDAE	30 May 2020	1
<i>Papilio polyxenes</i>	Black Swallowtail	PAPILIONIDAE	7 June 2021	1
<i>Papilio polyxenes</i>	Black Swallowtail	PAPILIONIDAE	29 June 2021	1
<i>Colias eurytheme</i>	Orange Sulphur	PIERIDAE	31 July 2020	6
<i>Colias eurytheme</i>	Orange Sulphur	PIERIDAE	31 Aug. 2020	6
<i>Colias eurytheme</i>	Orange Sulphur (2B)	PIERIDAE	23 June 2021	1
<i>Colias eurytheme</i>	Orange Sulphur	PIERIDAE	27 June 2021	4
<i>Colias eurytheme</i>	Orange Sulphur	PIERIDAE	29 June 2021	1
<i>Colias eurytheme</i>	Orange Sulphur	PIERIDAE	4 Sept. 2021	2
<i>Colias philodice</i>	Clouded Sulphur (5)	PIERIDAE	23 June 2021	a few
<i>Colias philodice</i>	Clouded Sulphur	PIERIDAE	27 June 2021	8
<i>Colias philodice</i>	Clouded Sulphur	PIERIDAE	4 Sept. 2021	4
<i>Pieris rapae</i>	Cabbage White	PIERIDAE	29 June 2020	1
<i>Pieris rapae</i>	Cabbage White	PIERIDAE	31 July 2020	1
<i>Pieris rapae</i>	Cabbage White (1A)	PIERIDAE	23 June 2021	many
<i>Pieris rapae</i>	Cabbage White	PIERIDAE	27 June 2021	12
<i>Pieris rapae</i>	Cabbage White	PIERIDAE	4 Sept. 2021	1
<i>Celastrina lucia</i>	Northern Azure	LYCAENIDAE	30 May 2020	1
<i>Celastrina lucia</i>	Northern Azure	LYCAENIDAE	13 June 2020	3
<i>Celastrina lucia</i>	Northern Azure	LYCAENIDAE	29 June 2021	many
<i>Celastrina neglecta</i>	Summer Azure (1A & all)	LYCAENIDAE	23 June 2021	many
<i>Celastrina neglecta</i>	Summer Azure	LYCAENIDAE	27 June 2021	13
<i>Callophrys gryneus</i>	Juniper Hairstreak	LYCAENIDAE	27 June 2021	2
<i>Glaucopsyche lygdamus</i>	Silvery Blue	LYCAENIDAE	13 June 2020	16
<i>Glaucopsyche lygdamus</i>	Silvery Blue	LYCAENIDAE	17 June 2021	1
<i>Glaucopsyche lygdamus</i>	Silvery Blue (2B)	LYCAENIDAE	23 June 2021	a few
<i>Everes comyntas</i>	Eastern Tailed Blue	LYCAENIDAE	29 June 2020	1
<i>Everes comyntas</i>	Eastern Tailed Blue	LYCAENIDAE	31 July 2020	6
<i>Everes comyntas</i>	Eastern Tailed Blue	LYCAENIDAE	31 Aug 2020	1
<i>Everes comyntas</i>	Eastern Tailed Blue	LYCAENIDAE	27 June 2021	2
<i>Everes comyntas</i>	Eastern Tailed Blue	LYCAENIDAE	4 Sept. 2021	2
<i>Cercyonis pegala</i>	Common Wood Nymph	NYMPHALIDAE	31 July 2020	1
<i>Coenonympha californica</i>	Common Ringlet	NYMPHALIDAE	13 June 2020	11
<i>Coenonympha californica</i>	Common Ringlet	NYMPHALIDAE	31 July 2020	1
<i>Coenonympha californica</i>	Common Ringlet	NYMPHALIDAE	15 June 2021	several
<i>Coenonympha californica</i>	Common Ringlet	NYMPHALIDAE	17 June 2021	4
<i>Coenonympha californica</i>	Common Ringlet	NYMPHALIDAE	27 June 2021	2
<i>Coenonympha californica</i>	Common Ringlet	NYMPHALIDAE	29 June 2021	1
<i>Coenonympha californica</i>	Common Ringlet (1A,B,2B)	NYMPHALIDAE	23 June 2021	a few
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	13 June 2020	4
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	29 June 2020	6

<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	31 July 2020	16
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	31 Aug. 2020	4*
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	15 June 2021	many
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	17 June 2021	10
<i>Danaus plexippus</i>	Monarch (1,2,3,4,6)	NYMPHALIDAE	23 June 2021	20+
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	27 June 2021	30
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	29 June 2021	many
<i>Danaus plexippus</i>	Monarch	NYMPHALIDAE	4 Sept. 2021	12
<i>Lethe eurydice</i>	Eyed Brown	NYMPHALIDAE	29 June 2020	1
<i>Lethe eurydice</i>	Eyed Brown	NYMPHALIDAE	17 June 2021	3
<i>Lethe eurydice</i>	Eyed Brown (1AD,2B,3,4,7)	NYMPHALIDAE	23 June 2021	many
<i>Lethe eurydice</i>	Eyed Brown	NYMPHALIDAE	27 June 2021	4
<i>Lethe eurydice</i>	Eyed Brown	NYMPHALIDAE	29 June 2021	1
<i>Libytheana carinenta</i>	American Snout	NYMPHALIDAE	27 June 2021	1
<i>Limenitis archippus</i>	Viceroy	NYMPHALIDAE	31 Aug. 2020	2
<i>Limenitis archippus</i>	Viceroy (2B)	NYMPHALIDAE	23 June 2021	1
<i>Limenitis archippus</i>	Viceroy	NYMPHALIDAE	27 June 2021	1 - fresh
<i>Limenitis arthemis arthemis</i>	White Admiral	NYMPHALIDAE	29 June 2020	1
<i>L. arthemis arthemis</i>	White Admiral	NYMPHALIDAE	17 June 2021	1
<i>L. arthemis arthemis</i>	White Admiral (1A)	NYMPHALIDAE	23 June 2021	1
<i>Megisto cymela</i>	Little Wood Satyr	NYMPHALIDAE	29 June 2020	1
<i>Megisto cymela</i>	Little Wood Satyr	NYMPHALIDAE	17 June 2021	3
<i>Megisto cymela</i>	Little Wood Satyr (1A,+ all)	NYMPHALIDAE	23 June 2021	many
<i>Megisto cymela</i>	Little Wood Satyr	NYMPHALIDAE	27 June 2021	3
<i>Phyciodes cocyta</i>	Northern Crescent	NYMPHALIDAE	31 July 2020	1
<i>Phyciodes cocyta</i>	Northern Crescent(5,1D,2B	NYMPHALIDAE	23 June 2021	10+
<i>Phyciodes cocyta</i>	Northern Crescent	NYMPHALIDAE	29 June 2021	1
<i>Phyciodes tharos</i>	Pearl Crescent	NYMPHALIDAE	13 June 2020	25
<i>Phyciodes tharos</i>	Pearl Crescent	NYMPHALIDAE	29 June 2020	1
<i>Phyciodes tharos</i>	Pearl Crescent	NYMPHALIDAE	31 Aug. 2020	10
<i>Phyciodes tharos</i>	Pearl Crescent	NYMPHALIDAE	17 June 2021	5
<i>Phyciodes sp.</i>	Crescent sp.	NYMPHALIDAE	27 June 2021	2
<i>Phyciodes sp.</i>	Crescent sp.	NYMPHALIDAE	4 Sept. 2021	3
<i>Speyeria cybele</i>	Great Spangled Fritillary	NYMPHALIDAE	29 June 2020	1
<i>Speyeria cybele</i>	Great Spangled Fritillary	NYMPHALIDAE	27 June 2021	1
<i>Vanessa atalanta</i>	Red Admiral (5)	NYMPHALIDAE	23 June 2021	1
<i>Vanessa atalanta</i>	Red Admiral	NYMPHALIDAE	27 June 2021	1
<i>Vanessa virginiensis</i>	American Lady	NYMPHALIDAE	30 May 2020	1
<i>Ancyloxypha numitor</i>	Least Skipper	HESPERONIDAE	29 June 2020	1
<i>Ancyloxypha numitor</i>	Least Skipper	HESPERONIDAE	31 July 2020	1
<i>Ancyloxypha numitor</i>	Least Skipper	HESPERONIDAE	17 June 2021	4

<i>Ancyloxypha numitor</i>	Least Skipper (1A, 2B, 7)	HESPERONIDAE	23 June 2021	a few
<i>Ancyloxypha numitor</i>	Least Skipper	HESPERONIDAE	27 June 2021	1
<i>Carterocephalus palaemon</i>	Arctic Skipper	HESPERONIDAE	31 July 2020	1
<i>Erynnis baptisiae</i>	Wild Indigo Duskywing	HESPERONIDAE	27 June 2021	1
<i>Poanes hobomok</i>	Hobomok Skipper (5)	HESPERONIDAE	23 June 2021	1
<i>Polites mystic</i>	Long Dash Skipper	HESPERONIDAE	17 June 2021	15
<i>Polites mystic</i>	Long Dash Skipper (1A+all)	HESPERONIDAE	23 June 2021	many
<i>Polites mystic</i>	Long Dash Skipper	HESPERONIDAE	27 June 2021	2
<i>Polites origenes</i>	Crossline Skipper	HESPERONIDAE	29 June 2021	1
<i>Polites theristocles</i>	Tawny-edged Skipper (1A)	HESPERONIDAE	23 June 2021	1
<i>Thorybes pylades</i>	Northern Cloudywing	HESPERONIDAE	17 June 2021	2
<i>Thorybes pylades</i>	Northern Cloudywing (1A)	HESPERONIDAE	23 June 2021	1
<i>Thyelicus lineola</i>	European Skipper	HESPERONIDAE	29 June 2020	10
<i>Thyelicus lineola</i>	European Skipper(1A,2A,B)	HESPERONIDAE	23 June 2021	a few
<i>Thyelicus lineola</i>	European Skipper	HESPERONIDAE	27 June 2021	8
<i>Thyelicus lineola</i>	European Skipper	HESPERONIDAE	29 June 2021	1



Mating pair of Eyed Browns photographed at MapleCross Coastline Reserve on 27 June 2021 by Dave Beadle.

Moths - LEPIDOPTERA

A total of 120 species of moths were recorded with 115 of those species identified during an overnight survey. A number of these were not previously recorded during the past four bioblitzes and may represent first reports for the County. Additional observations of moths seen during the day include a Luna Moth on 26 May 2021, White-spotted Saber on 17 June 2021 and many Toothed Somberwings on 24 June 2021. Thousands of Topiary Grass-veneers, as well as individuals of Elegant Grass-veneer and Large Lace Border moths were reported by D. Bree midday on 29 June 2021. In 2020, Eastern Tent Caterpillar, Maple Leaf Looper Moth, Arcigera Flower Moth, Monarch Tussock Moth caterpillars, and webworm caterpillars were observed during the day in late July and August.



Luna Moth photographed at MapleCross Coastline Reserve on 26 May 2021 by Jessica Daze, iNaturalist 131943442.

Table 12. Moths observed and identified by Dave Beadle on June 27-28 2021 at MapleCross Coastline Reserve, coming, during the night, to a light source in a field at the north end of the property. Pohl numbers are used to reflect a more accurate taxonomic arrangement (Beadle & Leckie, 2012). Hodges numbers are also shown. Common names are provided when available. The number of individuals observed is recorded on the right. (T) represents a tentative identification. An asterisk (*) indicates a first report of that species during the past four bioblitzes and may be a new record for the County. A plus sign (+) indicates a species also seen during the day-time). Some of Dave's photos from the site appear at the end of the table.

Pohl No.	Hodges No.	Scientific Name	Common Name	No. Seen
36 0083	2366	<i>Plutella xylostella</i>	Diamondback Moth	1
36 0150	2444	<i>Argyresthia calliphanes</i> *		1 (T)
42 0125	0911	<i>Bibarrambla allenella</i>	Bog Bibarrambla	1
42 0576	2298	<i>Dichomeris juncidella</i> *		1
42 1030	2075	<i>Chionodes praeclarella</i>		1
42 1707	1670	<i>Scythris pilosella</i> *		1 (T)
46 0012	6107	<i>Gillmeria pallidactyla</i>	Yarrow Plume Moth	1
46 0114	6213	<i>Hellinsia lacteodactylus</i>		1
62 0113	3760	<i>Aethes rutilana</i>	Pale Juniper Webworm	1
62 0024	3524	<i>Acleris simpliciana</i>		1
62 0282	3623	<i>Argyrotaenia quercifoliana</i> *	Lined Oak Leafroller	1
62 0299	3634	<i>Choristoneura zapulata</i>	Zapaluta Moth	1(T)
62 0300	3635	<i>Choristoneura rosaceana</i>	Oblique-banded Leafroller	10
62 0357	3682	<i>Clepsis persecana</i>	White Triangle Tortrix	1
62 0364	3688	<i>Clepsis peritana</i>	Garden Tortrix	1
62 0396	3711	<i>Sparganothis unfasciana</i> *	One-lined Sparganothis	2
62 0538	2769	<i>Pseudosciaphila duplex</i> *	Poplar Leafroller	1
62 0555	2786	<i>Olethreutes punctanum</i> *		1
62 0640	2866	<i>Evora hemidesma</i> *		1
62 1135	3232	<i>Proteoteras willingana</i> *	Eastern Boxelder Twig Borer	1
62 1276	3406	<i>Dichorampha bittana</i> *		1
62 1385	3495	<i>Gymnandrosoma punctidiscanum</i>	Dotted Ectytophlopa	1
66 0023	4665	<i>Lithacodes fasciola</i>	Yellow-shouldered Slug Moth	1
66 0051	4697	<i>Euclea delphinii</i>	Spiny Oak-Slug Moth	2
80 0133	5606	<i>Pococera asperatella</i>	Maple Webworm	1
80 0233	6005	<i>Moodna pallidostrinella</i> *	Paler Moodna	1
80 0378	5812	<i>Telephusia ovalis</i> *		1
80 0390	5824	<i>Pyla aequivoca</i> *		2

80 0724	4748	<i>Elophila icciusalis</i>	Pondside Pyralid Moth	1
80 0727	4751	<i>Elophila gyralis</i>	Waterlily Borer	1
80 0729	4755	<i>Elophila oblitalis</i>	Waterlily Leafcutter	1
80 0821	5464	<i>Urola nivalis</i>	Snowy Urola	1
80 0875	5420	<i>Microcrambus elegans</i> +	Elegant Grass-veneer	1
80 0887	5379	<i>Neodactria luteotellus</i>	Mottled Grass-veneer	1
80 0926	5391	<i>Chrysoteuchia topiaries</i> +	Topiary Grass-veneer	2
80 0943	5355	<i>Crambus praefectellus</i>	Common Grass-veneer	1
80 0949	5361	<i>Crambus albellus</i>	Small White Grass-veneer	10
80 0950	5362	<i>Crambus agitatellus</i>	Double-banded Grass-veneer	2
80 0982	4761	<i>Scoparia biplagiata</i>	Double-striped Scoparia	1
80 1005	4739	<i>Eudonia heterosalis</i>		1
80 1325	5226	<i>Palpita magniferalis</i>	Splendid palpita	1
80 1434	4958	<i>Anania funebris</i> *+	White-spotted Sable	1
80 1439	4962	<i>Hahncoppia marculenta</i>		1
80 1540	5060	<i>Pyrausta subequalis</i> *	Mottled Pyrausta	1
87 0003	7687	<i>Phyllodesma americana</i>	Lappet Moth	1
87 0017	7701	<i>Malacosoma americana</i>	Eastern Tent Caterpillar Moth	3
89 0012	7704	<i>Eacles imperialis</i>	Imperial Moth	6
89 0070	7757	<i>Antheraea polyphemus</i>	Polyphemus Moth	3
89 0103	7787	<i>Ceratonia undulosa</i>	Waved Sphinx	5
89 0207	7885	<i>Darapsa myron</i>	Virginia Creeper Sphinx	1
91 0234	7390	<i>Xanthorhoe lacustrata</i>	Toothed Brown Carpet	1
91 0238	7394	<i>Epirrhoe alternata</i> *	White-banded Toothed Carpet	1
91 0244	7399	<i>Euphyia intermediata (unangulata)</i>	Sharp-angled Carpet	1
91 0260	7416	<i>Costaconvexa centrostrigaria</i>	Bent-line Carpet	1
91 0466	7625	<i>Pasiphila rectangulata</i>	Green Pug	1
91 0488	7647	<i>Heterophleps triguttaria</i> *	Three-spotted Fillip	1
91 0489	7648	<i>Dyspteris abortivaria</i> *	The Bad-Wing	1
91 0500	7094	<i>Lobocleta ossularia</i>	Drab Brown Wave	1
91 0535	7126	<i>Idaea dimidiata</i> *	Single-dotted Wave	1
91 0567	7159	<i>Scopula limboundata</i> +	Large Lace Border	1
91 0578	7169	<i>Scopula inductata</i>	Soft-lined Wave	6
91 0639	7058	<i>Synchlora aerata</i> *	Wavy-lined Emerald	1
91 0735	6273	<i>Macaria pustularia</i>	Lesser Maple Spanworm	1
91 0772	6353	<i>Macaria multilineata</i>	Many-lined Angle	1
91 0789	6362	<i>Digrammia continuata</i>	Curve-lined Angle	1
91 1009	6590	<i>Anavitrinella pampinaria</i>	Common Gray	1
91 1017	6598	<i>Protoarmia porcelaria</i>	Porcelain Gray	1
91 1062	6640	<i>Biston betularia</i>	Peppered Moth	1
91 1145	6720	<i>Lytrosis unitaria</i>	Common Lytrosis	1
91 1149	6724	<i>Euchlaena serrata</i> *	The Saw-Wing	3
91 1384	6941	<i>Eusarca confusaria</i> *	Confused Eusarca	1

91 1400	6963	<i>Tetracis crocallata</i>	Yellow Slant Line	2
91 1401	6964	<i>Tetracis cachexiata</i>	White Slant Line	3
93 0015	7926	<i>Notodonta scitipennis</i>	Finned-Willow Prominent	1
93 0075	7983	<i>Heterocampa obliqua</i> *	Oblique Heterocampa	1
93 0100	8007	<i>Schizura unicornis</i> *	Unicorn Prominent	2
93 0247	8175	<i>Apantesis virguncula</i> *	Little Virgin Tiger Moth	4
93 0316	8137	<i>Spilosoma virginica</i>	Virginian Tiger Moth	1
93 0319	8140	<i>Hyphantrea cunea</i>	Fall Webworm Moth	2
93 0335	8129	<i>Pyrrharctia isabella</i>	Isabella Tiger	2
93 0360	8203	<i>Halysidota tessellaris</i>	Banded Tussock Moth	2
93 0370	8211	<i>Lophocampa caryae</i>	Hickory Tussock Moth	1
93 0404	8230	<i>Cycnia tenera</i>	Delicate Cycnia	2
93 0412	8238	<i>Euchaetes egle</i>	Milkweed Tussock Moth	1
93 0435	8262	<i>Ctenucha virginica</i>	Virginia Ctenucha	3
93 0469	8322	<i>Idia americalis</i>	American Idia	1
93 0471	8323	<i>Idia aemula</i> *	Common Idia	1
93 0505	8361	<i>Macrochilo louisiana</i> *	Louisiana Macrochilo	1
93 0520	8370	<i>Bleptina caradrinalis</i>	Bent-winged Owlet	1
93 0562	8442	<i>Hypena baltimoralis</i>	Baltimore Snout	1
93 0715	8479	<i>Spargaloma sexpunctata</i>	Six-spotted Gray	1
93 0729	9037	<i>Hyperstrontia pervertens</i>	Dotted Graylet	1
93 1089	8587	<i>Panopoda rufimargo</i> *	Red-lined Panopoda	1
93 1108	8959.1	<i>Paectes abrostolella</i>	Barrens Paectes	1
93 1121	8983	<i>Meganola minuscula</i>	The Confused Meganola	1
93 1123	8983.2	<i>Meganola spodia</i> *	Ashy Meganola	2
93 1289	9046	<i>Deltote bellicula</i>	Bog Glyph	2
93 1290	9047	<i>Protodeltote muscosula</i>	Large Mossy Glyph	1
93 1295	9049	<i>Maliattha synochitis</i>	Black-dotted Glyph	1
93 1297	9059	<i>Capis curvata</i> *	Curved Halter Moth	1
93 1412	9193	<i>Raphia frater</i> -*	The Brother	2
93 1423	9202	<i>Acronicta insita</i> *(=A.dactylina)	Large Gray Dagger	1
93 1475	9258	<i>Acronicta sperata</i> *	Hopeful Dagger	1
93 1989	9690	<i>Condica videns</i>	White-dotted Groundling	1
93 2026	9065	<i>Leuconycta diptheroides</i>	Green Leuconycta	1
93 2234	9681.1	<i>Elaphria alapalida</i> *	Pale-winged Midget	2
93 2266	9647	<i>Proxenus miranda</i>	Miranda Moth	1
93 2333	9348	<i>Apamea amputatrix</i> *	Yellow-headed Cutworm	1
93 2882	10300	<i>Lacanobia grandis</i>	Grand Arches	2
93 2933	10436	<i>Aletia oxygala</i>	Lesser Wainscot	1
93 3044	10397	<i>Lacinipolia renigera</i>	Bristly Cutworm Moth	1
93 3222	10902	<i>Anicla forbesi</i>	Forbes' Dart	1
93 3551	11003.1	<i>Noctua pronuba</i>	Large Yellow Underwing	2
93 3589	10942.1	<i>Xestia dolosa</i>	Black-Letter Dart	1

N.B. Additional moth species which were only observed during the day (with Hodges # on left).

7701	<i>Malacosoma americanum</i>	Eastern Tent Caterpillar	many	July 31/20
7758	<i>Actias luna</i>	Luna Moth	1	May 26/21 (iNaturalist)
8727	<i>Parallela bistriaris</i>	Maple Leaf Looper Moth	1	July 31/20
8731	<i>Euclidia cuspidea</i>	Toothed Somberwing	many	June 24/21
11128	<i>Schinia arcigera</i>	Arcigera Flower Moth	1	Aug. 31/20

4697 *Euclea delphinii*6941 *Eusarca confusaria*7058 *Synchlora aerata*6724 *Euchlaena serrata*8175 *Apantesis virguncula*7647 *Heterophleps triguttaria*9348 *Apomea amputatrix*8983 *Meganola minuscula*9059 *Capis curvata*

FLIES - DIPTERA

Table 13. Flies observed mainly in June 2021, with family, scientific name and common name recorded whenever possible. Green-headed horse flies were noted in habitat location #5.

Anthomyiidae		Root-maggot Flies
Asilidae	<i>Efferia aestuans</i>	Robber Fly
Bombyliidae	<i>Bombylius comanche</i>	Bee Fly
	<i>Bombylius mexicanus</i>	Bee Fly
Cecidomyiidae	<i>Asteromyia carbonifera</i>	Carbonifera Goldenrod Gall Midge
	<i>Dasineura pellex</i>	Ash Bullet Gall Midge
	<i>Vitisiella brevicauda</i>	Grape Tumid Gallmaker Midge
Chironomidae		Non-biting Midges
Lauxaniidae	<i>Homoneura</i> sp.	Lauxaniid Flies
Muscidae	<i>Coenosia</i> sp.	Tiger Flies
Platystomatidae	<i>Rivellia</i> sp.	Signal Flies
	<i>Uropora quadrifasciata</i>	Four-barred Knapweed Gall Fly
Sciaridae		Dark-winged Fungus Gnats
Syrphidae	<i>Eristalis dimidiata</i>	Black-shouldered Drone Fly
	<i>Eristalis tenax</i>	Common Drone Fly
	<i>Toxomerus geminatus</i>	Eastern Calligrapher
	<i>Toxomerus marginatus</i>	Margined Calligrapher
	<i>Hybomitra</i> sp.	Horse Flies (Green-headed)
Tabanidae	<i>Cryptomeigenia</i> sp.	Bristle Fly
Tachinidae	<i>Cylindromyia</i> sp.	Bristle Fly
Tephritidae	<i>Rhagoletis juniperina</i>	Fruit Fly
Tipulidae		Large Crane Flies



Bee fly (Bombylius comanche) photographed on 27 June 2021 at MapleCross Coastline Reserve by Dave Beadle.

True Bugs - HEMIPTERA

Table 14. True Bugs, mainly observed during June 2021 unless otherwise indicated. Family, scientific name and common names for each listed although some identifications were just to family or genus.

Aphididae		Aphids
Aphrophoridae	<i>Philaenus spumarius</i>	Meadow Spittlebug
Cicadidae		Cicada (calling July 31/20)
Cicadellidae	<i>Colladonus clitellarius</i>	typical Leafhopper
	<i>Draeculacephala mollipes</i>	Tender-footed Leafhopper
	<i>Draeculacephala robinsoni</i>	Sharpshooters
	<i>Norvellina seminuda</i>	typical Leafhopper
	<i>Ponana rubida</i>	typical Leafhopper
	<i>Scaphytopius acutus</i>	Sharp-nosed Leafhopper
Cixiidae	<i>Cixius</i> sp.	Cixiid Planthopper
Clastopteridae	cf. <i>Clastoptera proteus</i>	Dogwood Spittlebug
Coreidae	<i>Acanthocephala terminalis</i>	Leaf-footed Bug
Corixidae	<i>Hesperocorixa</i> sp.	Water Boatmen
Lygaeidae	<i>Lygaeus kalmia</i>	Eastern Small Milkweed Bug - 1B
Miridae		Plant Bugs
	<i>Miris dolabratus</i>	Meadow Plant Bug
	<i>Tropidosteptes</i> sp.	Plant Bug
Pentatomidae	<i>Chinavia hilaris</i>	Green Stink Bug
	<i>Chlorochroa persimilis</i>	Pink-edged Green Stink Bug
	<i>Euschistus servus</i>	Brown Stink Bug
	<i>Podisus maculiventris</i>	Spined Soldier Bug
Reduviidae	<i>Pygolampsis pectoralis</i>	Assassin Bug
	<i>Zelus luridus</i>	Pale Green Assassin Bug
Rhopalidae	<i>Boisea</i> sp.	Boxelder Bug (Aug. 31/20)
Rhyparochromidae	<i>Myodocha serripes</i>	Long-necked Seed Bug



Small Milkweed Bug photographed at MapleCross Coastline Reserve on 27 June 2021 by Dave Beadle.

Fishflies, etc. - MEGALOPTERA

Table 15. Fishflies noted during the biothon on June 27, 2021.

Corydalidae	<i>Chauliodes pectinicornis</i>	Summer Fishfly
-------------	---------------------------------	----------------

Lacewings – NEUROPTERA

Table 16. Lacewings seen during the MapleCross Biothon identified to genus only, but family and common name is given.

Chrysopidae	<i>Chrysoperla</i> sp.	Common Green Lacewing
-------------	------------------------	-----------------------

Springtails and Snow Fleas – COLLEMBOLA

These ubiquitous soil organisms were seen on the snow on a warm day in February in 2021 (see photo). Springtails are tiny hexapods, a group related to insects and spiders. Snow fleas can survive during the winter because they have an antifreeze protein which lowers the freezing temperature of their body, allowing them to survive in cold weather.

Table 17. Springtails observed in February 2021 along the north-south trail in the property.

Family	Scientific Name	Common Name
<i>cf.</i> Hypogastruridae	possibly <i>Hypogastrura nivicola</i>	Snow Fleas or Springtails



More than a thousand Snow Fleas, each 2 mm in length, appear as tiny specks in the snow, photographed at MapleCross Coastline Reserve on 28 February 2021 by Peter Fuller.

VERTEBRATES:

Fish

Table 18. Due to the extremely dry conditions in the spring of 2021, there was little to no running or standing water within the property, thus an aquatic survey, although planned, was not possible. In June 2020 several **Ninespine Stickleback** were observed in a temporary stream on the west side of the property. In June 2021 Tom Mason noticed a number of fish skeletons at the Lake edge. The only one identified was a non-native **Round-nosed Goby**.

Gasterosteidae	<i>Pungitius pungitius</i>	Ninespine Stickleback	13 June 2020
Gobiidae	<i>Neogobius melanostomus</i>	Round-nosed Goby	23 June 2021

Reptiles and Amphibians:



Blanding's Turtle photographed at MapleCross Coastline Reserve on 29 June 2020 by Peter Fuller.

Table 19. Reptiles and Amphibians observed during the MapleCross Biothon 2020-2021. One individual was observed unless otherwise indicated. Order, family, scientific name and common names are given

REPTILES

CRYPTODIRA

Emydidae *Emydoidea blandingii*

TURTLES

Blanding's Turtle - May 30/20; June 29/20 on Helmer; June 7/21-1 adult, 1 neonate; June 13/21

SQUAMATA

Colubridae *Opheodrys vernalis*
Thamnophis sirtalis sirtalis

LIZARDS AND SNAKES

Smooth Green Snake -May 26/21 (iNaturalist - photo)
Eastern Garter Snake-June 13/20; July 31/20; Sept. 4/21- 3



Smooth Green Snake photographed at MapleCross Coastline Reserve on 26 May 2021 by Jessica Daze, iNaturalist 131957551, CC-BY-NC-4.0.

AMPHIBIANS

ANURA

FROGS AND TOADS

Hylidae *Hyla versicolor*

Eastern Gray Tree Frog-June 29/20 singing; Aug.31/20 singing; June 7/21 3-4 (7)

Ranidae *Lithobates pipiens*

Northern Leopard Frog-May 30/20-5; June 13/20-400; June 29/20-8+; Oct. 31/20-5 after 10:30 (when above zero); June 7/21 many (7); June 23, a few (1A,3,7) on path or in grass; Sept.4/21-3

BIRDS: During the Biothon 104 species of birds were observed. Approximately half that number were present during June, an indication that those species were possibly breeding in or close to the area, or were at least using the property for foraging during the nesting period. However, their presence at that time does not necessarily mean that they did breed or that others did not. Some species, such as Ruffed Grouse, are extremely secretive during the nesting period and might have actually been present but were not observed.

The Clay-coloured Sparrow is one of the more unusual species observed. At least one male was singing on territory in the northern portion of the property in both years – noted several times during May and June. Also, the number of individuals increased by late June indicating a successful breeding with young of the year observed. This species is given a status of S4B by NHIC and is uncommon to rare in most of southern Ontario with the highest densities along the south edge of the Canadian Shield. Abundant in the Rainy River area of northwestern Ontario, it is considered an uncommon breeding species with patchy distribution across the rest of the province.

Most of the other species were typical of the region and could be expected to nest in the area, if not on the property *per se*. It should be noted that White-throated Sparrows are usually regarded as breeding further north in Ontario but they have long been known to breed in the Red Cedar forests on the South Shore of PEC. The remaining species are regarded as either spring or fall migrants, winter residents, nomadic flocks or perhaps, young of the year foraging in the area.



Greater Yellowlegs offshore from MapleCross Coastline Reserve. Photo by Peter Fuller, 31 October 2020.

Table 20. List of birds seen during the 2020-2021 Biothon with dates observed, numbers seen and location zone on map (when recorded). Taxonomic order follows the AOU Checklist of North American Birds (online) incorporating changes through the 62nd supplement (2021) <http://checklist.aou.org/taxa>, Possible breeding species (present during June in either or both years) are shown in bold.

Order, Family, Scientific Name	Common Name	Date, Number Observed, (location)
Order Anseriformes		
Family Anatidae		
<i>Branta canadensis</i>	Canada Goose	Mar.27/20-4; May 30-1; June 29-2; Oct.9/20-1; Oct. 31/20-1; Apr. 2/21-11; Sept. 4/21-1 (9)
<i>Cygnus olor</i>	Mute Swan	June29/20-5;Feb. 28/21-1; June 7/21-1(9); Sept. 4/21-6
<i>Anas platyrhynchos</i>	Mallard	Mar.27/20-1; Apr.25/20-1; Oct.31/20-2; Feb. 28/21-3; June 7/21-19 (9); June 27 ²¹ -5; June 28/21-2 (9)
<i>Aythya americana</i>	Redhead	Oct.31/20-18 (9)
<i>Aythya marila</i>	Greater Scaup	Jan.31/20-40 (9)
<i>Melanitta fusca</i>	White-winged Scoter	Jan. 31/20-150; Oct. 9 /20-5; Oct. 31/20-10; Nov. 28/20-2; Apr. 2/21-10 (9)
<i>Melanitta</i> sp.	Scoter sp.	Jan.31/20 (9)
<i>Clangula hyemalis</i>	Long-tailed Duck	Jan.31/20-200; Feb. 29/20-2; Mar.27-2; Nov. 28/20-103; Jan. 31/21-8; Feb. 28/21-105; Apr. 2/21-24 (9)
<i>Bucephala albeola</i>	Bufflehead	Mar. 27/20-10; Oct. 31/20-7; Nov. 28/20-30; Feb. 28/21-8; Apr. 2/21-9 (9)
<i>Bucephala clangula</i>	Common Goldeneye	Mar.27/20-50; Oct. 31-13; Nov. 28/20-20; Feb. 28/21-61; Apr. 2/21-48 (9)
<i>Mergus merganser</i>	Common Merganser	Jan. 31/20-9; Mar. 27/20-8; Nov. 28/20-18; Feb. 28/21-80 (9)
<i>Mergus serrator</i>	Red-breasted Merganser	Jan. 31/20-2; July 31/20-1; Feb. 28/21-80; July 24/21-50 (9)
	Duck sp.	Nov. 28/20-50; Nov 10/21-3 (9)
Galliformes		
Phasianidae		
<i>Meleagris gallopavo</i>	Wild Turkey	Mar. 27/20-1; June 27/21-1 (tracks); Sept. 4/21-1
<i>Bonasa umbellus</i>	Ruffed Grouse	Jan.31/20-1;Mar. 27-2;Apr.25-2;May 30-2; Aug. 31-1; Oct. 9-1; Nov. 28/20-1;Apr. 2/21-1; Nov. 10/21-1
Columbiformes		
Columbidae		
<i>Zenaida macroura</i>	Mourning Dove	July 31/20-2; Apr.2/21-2;May 24-1; June 7/21 st -1(1A); June 27-1; June 28/21-2; July 24/21-1; Sept. 4/21-1
Cuculiformes		
Cuculidae		
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	July 31/20-1; July 24/21-1

Caprimulgiformes

Caprimulgidae

Antrastomus vociferous **Eastern Whip-poor-will** June 28/21 – 1

Apodiformes

Tochilidae

Archilocus colubris **Ruby-throated Hummingbird** Aug. 31/20-1

Charadriiformes

Scolopacidae

Scolopax minor **American Woodcock** June 28/21 - 1

Gallinago delicata **Wilson's Snipe** Mar.27/20-6

Tringa melanoleuca **Greater Yellowlegs** Oct. 31/20-1 (9)

Laridae

Chroicocephalus philadelphia **Bonaparte's Gull** Apr. 2/21-8; May 24-1; June 27/21-27(9); June 28/21-25

Larus delawarensis **Ring-billed Gull** Mar. 27/20-2; May 30/20-150; ; June 29/20-9; July 31/20-1; Aug. 31/20-2; Oct. 31/20-4; Nov. 28/20-2; May 24/21-150; June 7/21-300; June 27-200; June 28/21- 50; Nov. 10/21-1 (9)

Larus argentatus **Herring Gull** Jan. 31/20-2; Nov. 28-8; Jan. 31/21-25; Feb. 28/21-15; Apr. 2/21-3; May 24/21-10; June 7/21-90; June 27-23; June 28-6; July 24/21-39; Sept. 4/21-1; Nov. 10/21-2

Larus marinus **Great Black-backed Gull** Nov. 28/20-1 (9)

Larus sp. **Gull** sp. Nov. 28/20-57; Dec. 28/20-1; Apr. 2/21-40 (9)

Hydroprogne caspia **Caspian Tern** May 30/20-1; June 29/20-1; May 24/21-2; July 24/21-1; June 7/21-1(9); June 27-6; June 28/21-1 (9)

Suliformes

Phalacrocoradidae

Phalacrocorax auratus **Double-crested Cormorant** Apr. 25/20-2; May 30-600; June 29/20-21; July 31/20-18; Aug. 31-8; Oct. 9/20-3; May 24/21-9; June 27/21-65; July 24-8; Sept. 4/21-3; Nov. 10/21-6 (9)

Pelecaniformes

Ardeidae

Botaurus lentigenosis **American Bittern** June 27/21 -1 (flying over)

Ardea herodias **Great Blue Heron** Mar. 27/20-1; July 31/20-1 (flying)

Cathartiformes

Cathartidae

Cathartes aura **Turkey Vulture** Apr. 25/20-2; June 29/20-2; July 31/20-3; Aug.31/20-1; May 24/21-1; June 17/21-2; June 27-7; June 28/21-1; July 24/21-1; Nov. 10/21-15

Accipitriformes

Accipitridae

Aquila chrysaetos **Golden Eagle** Oct. 31/20-2

Circus hudsonius **Northern Harrier** Apr.25/20-1; Apr. 2/21-1; June 7/21 -1(1A); Sept. 4/21-1

<i>Accipiter striatus</i>	Sharp-shinned Hawk	May 30/20-1; Nov. 10/21-1
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Feb. 29/20-1; Nov. 28/20-1; Dec. 28/20-1; Apr. 2/21-1; July 24/21-1; Sept. 4/21-1
	Eagle sp.	Nov. 10/21-1
<i>Buteo jamaicensis</i>	Red-tailed Hawk	Apr. 2/21-1
<i>Buteo lagopus</i>	Rough-legged Hawk	Jan.31/20-1

Piciformes

Picidae

<i>Dryobates pubescens</i>	Downy Woodpecker	Apr.25/20-2; May 30/20-1; June 29-1; Apr. 2/21-1; July 24/21-1; Sept. 4/21-1
<i>Dryobates villosus</i>	Hairy Woodpecker	Mar. 27/20-1
<i>Colaptes auratus</i>	Northern Flicker	July 31/20-1; May 24/21-1; June 27/21-2; Sept. 4/21-3; Nov.10/21-1

Falconiformes

Falconidae

<i>Falco sparverius</i>	American Kestrel	Oct. 9/20-1
<i>Falco columbarius</i>	Merlin	Apr. 25/20-1; Aug. 31/20-1; Sept. 4/21-1

Passeriformes

Tyrannidae

<i>Myiarchus crinitus</i>	Great-crested Flycatcher	May 30/20-2; May 24/21-1; June 7/21-1(1A); June 27/21-1
<i>Tyrannus tyrannus</i>	Eastern Kingbird	May 30/20-2; July 31/20-1; May 24/21-1
<i>Contopus virens</i>	Eastern Wood Pewee	May 30/20-1
<i>Empidonax alnorum</i>	Alder Flycatcher	May 30/20-4; June 29/20-1; June 7/21-1 (1A); June 27/21-2; June 28-3; July 24-2; Sept.4/21-1
<i>Empidonax trailii</i>	Willow Flycatcher	May 30/20-2; June 29/20-1; July 24/21-1
<i>Empidonax sp.</i>	Empidonax sp.	Aug. 31/20-2
<i>Empidonax minimus</i>	Least Flycatcher	Aug.31/20-2; Sept. 4/21-3
<i>Sayornis phoebe</i>	Eastern Phoebe	Oct. 9/20-2

Vireonidae

<i>Vireo solitarius</i>	Blue-headed Vireo	Oct. 9/20-1
<i>Vireo gilvus gilvus</i>	Warbling Vireo	July 31/20-1
<i>Vireo olivaceus</i>	Red-eyed Vireo	May 30/20-1; Aug. 31/20-1; Oct. 9/20-1; May 24/21-1; June 28/21-1; July 24/21-1; Sept. 4/21-5

Laniidae

<i>Lanius excubitor</i>	Northern Shrike	Feb. 28/21; (along Helmer Rd. just east of property)
-------------------------	-----------------	--

Corvidae

<i>Cyanocitta cristata</i>	Blue Jay	Jan.31/20-9;Feb.29/20-3;Mar.27-13;Apr.25-1;May 30-4;June 29-3;July 31-2;Aug. 31-6;Oct.9-12;Oct.31-1; Nov. 28-1; Dec.28/20-5; Feb. 28/21-2; May 24/20-7; June 17/21-1; June 27/21 -1; June 28/21-1; July 24/21-1; Sept. 4-12; Nov. 10/21-10
<i>Corvus brachyrhynchus</i>	American Crow	Mar.27/20-10; Apr.25/20-2; May30/20-2; June 29/20-2; July 31/20-1; Oct.9/20-1; Dec.28/20-1;



Cedar Waxwings on Red Cedar in northern section of MapleCross Coastline Reserve. Photo by Peter Fuller, 31 July 2020.

<i>Corvus corax</i>	Common Raven	May 24/21-2; June 28/21-1; July 24/21-1 Feb. 29/20-2; Mar. 27-2; Apr.25-1; June 29/20-1; Oct. 31/20-1; Nov. 12/20-3; Nov.28/20-1; Dec.28/20-2; Feb. 28/21-2; Apr. 2/21-2; May 24/21-2; June 27/21-4; July 24/21-1; Sept. 4/21-1; Nov.10/21-1
Paridae		
<i>Poecile atricapillus</i>	Black-capped Chickadee	Feb.29/20-8; Mar.27/20-15; Apr.25-5; May 30-3; June 29/20-7; July 31-6; Aug.31-11; Oct. 9-10; Oct.31/20-6; Nov. 12/20-2; Nov. 28/20-1; Dec.28/20-7; Jan. 31/21-2; Feb. 28/21-11; May 24/21-6; June 28/21-10; July 24/21-4; Sept 4./21-9; Nov. 10/21-5
Hirundinidae		
<i>Riparia riparia</i>	Bank Swallow	July 24/20-2
<i>Hirundo rustica</i>	Barn Swallow	May 30/20-2
Regulidae		
<i>Regulus calendula</i>	Ruby-crowned Kinglet	Oct. 9/20-8; Nov. 10/21-1
<i>Regulus satropa</i>	Golden-crowned Kinglet	Oct. 9/20-4; Oct. 31/20-2; Dec. 28/20-2; Apr. 2/21-1; Nov. 10/21-2
Bombycillidae		
<i>Bombycilla garrulus</i>	Bohemian Waxwing	Feb. 28/21; (*along Helmer Rd. just east of property)
<i>Bombycilla cedrorum</i>	Cedar Waxwing	Jan. 31/20-49; Mar. 27/20-1; May 30/20-58; June 29-15 July 31/20-10; Aug. 31-3; Oct. 9/20-2; Oct. 31/20-8; June 27/21-2; June 28/21-2; July 24/21-20; Sept. 4/21-2; Nov. 10/21-17

Sittidae

Sitta carolinensis White-breasted Nuthatch Oct. 31/20-1; Sept. 4/21-1
Sitta canadensis Red-breasted Nuthatch` Aug. 31/20-2; May 24/21-1

Troglodytidae

Troglodytes aedon **House Wren** May 30/20-1; June 29/20-1; July 31/20-3; Aug. 31/20-2; June 27/21-3; June 28/21-1; July 24-2; Sept. 4/21-2
Troglodytes hiemalis **Winter Wren** June 29/20-1; Oct. 9/20-1

Mimidae

Dumetella carolinensis **Gray Catbird** May 30/20-3; June 29/20-8; July 31/20-8; Aug. 31/20-7; Oct. 9/20-2; May24/21-4; June 7/21-1(1A); June 17-1; June 27/21-5; June 28/21-1; July 24/21-10; Sept. 4/21-17
Toxostoma rufum **Brown Thrasher** Apr.25/21-4; June 29/20-1; July 31/20-4; Aug. 31/20-2; May 24/21-4; June 27/21-2; June 28/21-2; Sept. 4/21-1

Turdidae

Sialis sialis Eastern Bluebird Oct. 9/20-1
Hylocichla mustelina **Wood Thrush** June 28/21-1; Nov. 10



Pine Siskin feeding on seeds of Evening Primrose on the beach at MapleCross Coastline Reserve. Photo by Peter Fuller, 31 October 2020.

<i>Catharus ustulatus</i>	Swainson's Thrush	Aug. 31/20-1; Oct. 9/21-2
<i>Catharus guttatus</i>	Hermit Thrush	Oct. 9/20-2; Nov. 10/21-1
<i>Turdus migratorius</i>	American Robin	Jan. 31/20-4; Mar. 27/20-18; Apr.25-9; May 30-4; June 29/20-5; July 31-7; Oct.9-5; Oct. 31/20-16; Feb. 28/21-17; Apr. 2/21-3; May 24-2; June 27/21-2; June 28/21- 4; July 24-10; Sept. 4/21-1; Nov. 10/21-5
Motacillidae		
<i>Anthus rubescens</i>	American Pipit	Oct. 31/20-3
Calcariidae		
<i>Plectrophenax nivalis</i>	Snow Bunting	Jan. 31/20-19; Oct. 31/20-8
Fringilidae		
<i>Haemorhous purpureus</i>	Purple Finch	Aug. 31/20-2; Oct. 9/20-2; Nov. 12/20-3
<i>Haemorhous sp.</i>	House/Purple Finch	Mar. 27/20-1
<i>Acanthis flammea</i>	Common Redpoll	Feb. 28/21-1
<i>Spinus pinus</i>	Pine Siskin	Oct. 9/20-3; Oct. 31/20-27
<i>Spinus tristis</i>	American Goldfinch	Jan.31/20-2; Mar.27/20-1; May 30/20-3; June 29/20-6; July 31/20-1; Aug. 31-6; Oct. 9/20-3; Oct. 31/20-6; Nov. 12-23; Nov. 28/20-1; June 27/21-8; July 24/21-2; Sept. 4/21-4; Nov. 10/21-24
Passerellidae		
<i>Spizella passerine</i>	Chipping Sparrow	Apr. 25/21-2; June 7/21-1(1A); June 27/21-2
<i>Spizella pallida</i>	Clay-coloured Sparrow	June 29/20-1; June 7/21-1(1A); June 15-1(2A); June 17/21-2; June 27/21-3; June 28/21-4 (1A); July 24/21-4
<i>Spizella pusilla</i>	Field Sparrow	Apr. 25/20-9; May 30/20-4; June 29/20-4; July 31/ 20-4; Aug. 31/20-2; May 30/21-7; June 17/21-1; June 27/21-5; June 28/21-2; July 31/21-3
<i>Passerella iliaca</i>	Fox Sparrow	Apr. 2/21-1
<i>Spizelloides arborea</i>	American Tree Sparrow	Jan. 31/20-15; Feb. 29/20-4; Nov. 12-15; Dec. 28/20-3
<i>Junco hyemalis</i>	Dark-eyed Junco	Mar. 27/20-1; Oct. 9/20-1; Oct. 31/20-2; Apr. 2/21-7; Nov. 10/21-17
<i>Pooecetes gramineus</i>	Vesper Sparrow	not a definite ID but possibly - June 23/21 (sw corner)
<i>Melospiza melodia</i>	Song Sparrow	Mar.27/20-23; Apr. 25/20-19; May 30/20-7; June 29/ 20-16; July 31/20-9; Aug. 31/20-4; Oct. 9/20-11; Oct. 31/20-1; Apr. 2/21-13; May 24/21-4; June 17/21-1; June 27/21-15; June 28/21-5; July 24/21-5; Sept. 4/21-4; Nov. 10/21-1
<i>Zonotrichia albicollis</i>	White-throated Sparrow	Apr. 25/20-4; May 30/20-3; June 29/20-3; July 31/ 20-2; Aug. 31/20-1; Oct. 9/20-8; Oct. 31/20-2; May 24/21-3; June 7/21-1(2A); June 15/21-1; June 27/21 -5; June 28/21-1; June 28/21-1; July 24-4; Sept.4/21-2
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow	Oct. 9/20-6;
<i>Pipilo erythrophthalmus</i>	Eastern Towhee	Mar. 27/20-2; Apr. 25/20-8; May 30/20-4; June 29/20- 10; July 31/20-9; Aug. 31/20-5; Oct. 9/20-4; May 24/21 -8; June 7/21-3 (1A); June 17/21-2; June 27/21-5; June 28/21-6; July 24/21-10; Sept. 4/21-15

Icteridae		
<i>Icterus galbula</i>	Baltimore Oriole	July 31/20-1
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	Mar. 27/20-14; Apr. 25/20-3; May 30/20-1; June 29/20-4; Oct. 9/20-248; Oct. 31/20-5; May 24/21-1; June 28/21-6
<i>Molothrus ater</i>	Brown-headed Cowbird	May 30/20-2; June 29/20-1; June 27/21-2
<i>Quiscalus quiscula</i>	Common Grackle	Mar.27/20-3; May 30/20-1; June 29/20-3; July 31/20-1; Oct. 9/20-3; Oct. 31/20-2; May 24/21-3; June 28/21-10; Nov. 10/21-3
Parulidae		
<i>Seiurus aurocapilla</i>	Ovenbird	May 30/20-2
<i>Mniotilta varia</i>	Black and White Warbler	June 29/20-1; July 31/20-3
<i>Leiothlypis ruficapilla</i>	Nashville Warbler	May 30/20-1; June 29/20-2; July 31/20-2; Aug. 31/20-1
<i>Geothlypis trichas</i>	Common Yellowthroat	May 30/20-10; June 29/20-10; July 31/20-3; Aug. 31/20-3; May 24/21-10; June 7/21-3(3); June 17-1; June 27/21-4; June 28/21-4; July 24/21-5; Sept. 4/21-7
<i>Setophaga ruticilla</i>	American Redstart	June 29/20-2; Aug. 31/20-1; June 27/21-1
<i>Setophaga ameriana</i>	Northern Parula	Sept. 4/21-1
<i>Setophaga magnolia</i>	Magnolia Warbler	Sept. 4/21-5
<i>Setophaga petechia</i>	Yellow Warbler	May 30/20-12; June 29/20-9; July 31/20-5; May 24/21-13; June 7/21-3(1A); June 17/21-1; June 27/21-16; June 28/21-2; July 24/21-1
<i>Setophaga coronate</i>	Yellow-rumped Warbler	Aug. 31/20-1; Oct. 9/20-2; Sept. 4/21-20; Nov. 10/21-8
Cardinalidae		
<i>Cardinalis cardinalis</i>	Northern Cardinal	Mar. 27/20-3; Apr. 25/20-3; May 30-1; June 29/20-2; July 31-2; Aug.31-2; Oct.31/20-2; Nov.28/20-1; Feb. 28/21-2; Apr. 2/21-1; June 27-1; July 24-2; Sept. 4/21-1
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	June 29/20-2; July 31/20-2; July 24/21-1

MAMMALS

Table 21. List of the Mammals (or evidence of them) that were observed during the MapleCross Biothon 2020-2021. One individual was observed unless otherwise indicated.

ORDER/Family	Scientific Name	Common Name & observations
RODENTIA		RODENTS
Cricetidae	<i>Microtus pennsylvanicus</i>	Meadow Vole -Feb. 29/20-tracks on snow
Sciuridae	<i>Tamiasciurus hudsonius</i>	Red Squirrel -Feb. 29/20 & tracks
EULIPOTYPHILA		SHREW, MOLES, HEDGEHOGS
Talpidae	<i>Condylura cristata</i>	Star-nosed Mole -June 13/20-excavations

LAGOMORPHALeporidae *Sylvilagus floridans***RABBITS, HARES, PICAS****Eastern Cottontail**-Feb. 29/20-tracks; Oct. 31/20 on trail; June 7/21 (1)**CARNIVORA**Canidae *Canis latrans***CARNIVORES****Coyote**-Jan.31/20 & Feb. 29/20 – tracks; Oct. 9/20 -Helmer Rd.; June 23/21 (2B) scat on trail*Vulpes fulva***Red Fox**-Feb. 29/20-tracks on fresh snow

Mustelidae

*Lontra canadensis***River Otter**-Feb. 29/20- tracks on snow**ARTIODACTYLA**Cervidae *Odocoileus virginianus***EVEN-TOED UNGULATES****White-tailed Deer**-Jan.31/20-tracks; Feb. 29 - 2 + many tracks; June 23/21 (1A)**REFERENCES:**

- Anderson, C. and S.M. McKay-Kuja. 2014. Ostrander Point Bioblitz. Prince Edward County Field Naturalists. 27 pp.
- Bland, D. 1997. Assessment of and management prescription for the Ostrander Point Crown Land Block in Prince Edward County. Ontario Ministry of Natural Resources, Kingston, Ontario. 72 pages + 2 maps
- Brouillet, L., F. Coursol, S.J. Meades, M. Favreau, M. Anions, P. Bélisle & P. Desmet. 2010+. VASCAN, the Database of Vascular Plants of Canada. <http://data.canadensys.net/vascan>
- Canadian Endangered Species Conservation Council. 2016. Wild Species 2015: The General Status of Species in Canada. National General Status Working Group Electronic copy (www.wildspecies.ca); data summary, raw data, and downloadable report.
- Catling, P.M., B. Kostiuk, S. Kuja, and A. Kuja. 2015. Status of land snails of Point Petre Provincial Wildlife Area, Prince Edward County South Shore, Ontario. Private Report. 5 pp.
- Catling, P.M., B. Kostiuk, S. Kuja, and A. Kuja. 2016. Terrestrial Snails of Little Bluff Conservation Area, Prince Edward County, Ontario. Pp. 32-34 in 2016 PECFN BioBlitz Little Bluff Conservation Area, PEC.
- Catling, P.M., S.M. McKay-Kuja, B. Kostiuk and A. Kuja. 2014. Preliminary annotated list of the vascular plants of Ostrander Point Crown Land Block. Available from the Prince Edward County Field Naturalists. 39 pp.
- Chesser, R.T., S. M. Billerman, K.J. Burns, C. Cicero, J.L. Dunn, B.E. Hernandez-Banos, A. W. Kratter, I.J. Lovette, N.A. Mason, P.C. Rasmussen, J.V. Remsen, Jr., D.F. Stotz and K. Winkler. 2021 Checklist of North American Birds (online) American Ornithological Society. <http://checklist.aou.org/taxa>
- McKay-Kuja, S.M., C. Anderson, D. Bree, D. Buchbinder, M. Burrell, M. Christie, J. Foster, P. Fuller, K. Gunson, D. Kristensen, A. Kuja, C. Lewis, R. Morris, M. O'Mahoney, W.

- Rendell, L. Stanfield, T. Sprague, and M. Wood. 2016a. 2015 PECFN Bioblitz at Point Petre, Prince Edward County. Prince Edward County Field Naturalist. 34 pp.
- McKay-Kuja, S.M., D. Bree, M. Burge, P.M. Catling, M. Christie, K. Felkar, J. Foster, K. Gunson, B. Kostiuk, A. Kuja, C. Lewis, W. Rendell, L. Stanfield, T. Sprague, and M. Wood. 2016b. 2016 PECFN BioBlitz at Little Bluff Conservation Area, Prince Edward County. Prince Edward County Field Naturalist. 38 pp.
- McKay-Kuja, S.M., D. Beadle, D. Bree, P.M. Catling, P. Fuller, B. Kostiuk, D. Kristensen, A.Kuja, T. Mason, W. Rendell, L. Stanfield, and T. Sprague. 2017. 2017 PECFN BioBlitz at Miller Family Nature Reserve, Prince Edward County, Ontario. Prince Edward County Field Naturalists. 50 pp.
- McKay-Kuja, S.M., D. Beadle, E. Bednarczuk, D. Bree, P.M. Catling, M. Christie, P. Fuller, K. Gunson, B. Kostiuk, S. Kranzl, D. Kristensen, A. Leavens, R. Lauer, W. Rendell, L. Stanfield and K.Thomas. 2018. 2018 PECFN BioBlitz at the Charwell Point area of the Point Petre Provincial Wildlife Area, Prince Edward County, Ontario. Prince Edward County Field Naturalists. 52 pp.
- Ontario Natural Heritage Information Centre provincial tracking list, updated March 18, 2021. Downloaded September 2021 from <https://www.ontario.ca/page/get-natural-heritage-information>
- Pelham, J.P. 2021. Catalogue of the Butterflies of the United States and Canada. [A Catalogue of the Butterflies of the United States and Canada by Jonathan P. Pelham \(butterfliesofamerica.com\)](#)
- Schmidt, B.C. and R.A. Layberry . 2016. What Azure blues occur in Canada? A re-assessment of *Celastrina* Tutt species (Lepidoptera, Lycaenidae). ZooKeys 584: 135–164. doi: [10.3897/zookeys.584.7882](https://doi.org/10.3897/zookeys.584.7882)
- Snetsinger, R. 2001. Prince Edward Point to Ostrander Point, Natural Heritage Area – Life Science Checksheet. Pp 120-122 in M.A. Snetsinger and I.D. Macdonald, Life Science areas of natural and scientific interest in site district 6E-15
- Taylor, A. 2011. Ostrander Point Wind Energy Park Natural Heritage Assessment and Environmental Impact Study. May 2011. File 160960369. Appendix H Vascular Plant List. Prepared for Gilead Power Corp. by Stantec Consulting Company, Guelph, ON. 7 pp.
- Tracey, A. 2019. Ostrander Point Property Management Plan. Eastern Ontario Sub Region/Ontario Region, 2020-2024. Nature Conservancy of Canada.
- Whitecombe, M., R. Harris and R.J. Carlisle. 1973. An Ecological and Geological Overview of Prince Edward County 1973. Park Planning Branch, Environmental Planning Section, Ontario Ministry of Natural Resources, Queen’s Park, Toronto. 415 pp.
- Zhang, J., Q. Cong, J. Shen, P.A.Opler, and N.V. Grishin. 2020. Genomic evidence suggests further changes of butterfly names. *Coenonympha californica* Westwood, [1851] is species distinct from *Coenonympha tullia* (Müller, 1764). 2020. The taxonomic report of the International Lepidoptera Society. 8(7): 22. [The-Taxonomic-Report_8-7_0001-0041.pdf \(zobodat.at\)](#)



Northern Shrike (far right) with a flock of Bohemian Waxwings (centre and left) photographed by Peter Fuller on 28 February 2021 along Helmer Rd., just east of Maple Cross Coastline Reserve. These birds were very close to but not on the property when observed.

