

# LAROSE FOREST BioBlitz Report 2010



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The Prescott-Russell Stewardship Council was established in 1998 as part of the Ontario Stewardship Program an initiative of the Ontario Ministry of Natural Resources. This program has 42 Stewardship Councils, volunteers groups of representative landowners and land interest groups who determine the environmental priorities for a given area, usually a county, in Ontario. The Prescott-Russell Stewardship Council has projects and operational funding which act as the catalyst to ensure that good ideas can be translated into projects. Some of the projects implemented by the Prescott-Russell Stewardship Council are: the re-introduction of wild turkeys in Prescott-Russell; seminars for woodlot owners; greening programs; the French Envirothon; the Water Well Identification Program; and the Alfred Birding Trail, among others.

The Ottawa Field-Naturalists' Club was founded in 1879. The club promotes appreciation, preservation and conservation of Canada's natural heritage. The OFNC produces two quarterly publications: the peer-reviewed journal, *The Canadian Field-Naturalist,* reporting research in Canadian natural history, and *Trail and Landscape*, providing articles on natural history of the Ottawa Valley.

### This report was commissioned by the Prescott-Russell Stewardship Council and The Ottawa Field-Naturalists' Club

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### THE LAROSE FOREST BIOBLITZ - 2010

### SUMMARY \_

With the United Nations declaration of 2010 as *The International Year for Biodiversity*, it seemed a very appropriate time to hold another BioBlitz in Larose Forest, an event which focuses on the diversity of life. This was our third such venture. The previous ones were held in 2006 and 2007. Each BioBlitz has concentrated on a very different part of the forest. The 2010 BioBlitz was jointly organized by the Prescott-Russell Stewardship Council (P-RSC), The Ottawa Field-Naturalists' Club (OFNC), the United Counties of Prescott-Russell (UCPR), and South Nation Conservation (SNC). We were fortunate in once again attracting the participation of a great number of experts in a variety of disciplines. A significant amount of data was collected and will be added to our ongoing inventories. All such data is available through the websites of the Prescott-Russell Stewardship Council stewardship Council and The Ottawa Field-Naturalists' Club.

We were not able to survey all taxonomic groups this year, however, most major groups were covered well. We also had an appreciable increase in the number of experts working on aquatic life, because the BioBlitz site included the South Nation River. Data is still lacking for some other groups such as bacteria, algae, round worms, and nematode worms. These organisms all contribute to a healthily functioning ecosystem and we will continue to look for experts in these fields for future BioBlitz events.

Results from the 2010 BioBlitz
No. of species on BioBlitz: 743
Bird species: 79
Fungi and Mushroom species: 40
Insect and Arachnid species: 238
Mammal species: 12
Fish species: 8
Moss and Liverwort species: 54
Reptile and Amphibian species: 10
Vascular Plant species: 299
Misc: 3
Regionally and/or Provincially Significant Species: 21

### LAROSE FOREST BIOBLITZ - 2010



South Nation River, forming the western boundary of the BioBlitz site

### INTRODUCTION

The 2010 Larose Forest BioBlitz was held on June 11<sup>th</sup> and 12<sup>th</sup>. This year, forty-three (43) people participated, more than we have had at any previous BioBlitz event. For those unfamiliar with Larose Forest, the event provided a good introduction to the area. A number of other individuals expressed regret that they were unable to take part this year, but previous or unforeseen commitments prevented this. They told us that they are keen to participate in any future such events in the forest.

### LAROSE FOREST\_

If you look at an aerial photo of this part of eastern Ontario, you will see a scattering of small towns and villages surrounded by an agricultural landscape. However, dominating all of this is the great mass of Larose Forest, approximately 11,000 hectares (26,000 acres) in size, in two large parcels. The biggest, the main block, is situated near the towns of Cheney, Bourget and Limoges, and is about 7, 285 hectares (18,000 acres) of contiguous forested landscape (Map, *Fig. 1*). This is where all BioBlitz events have taken place. Although located within the United Counties of Prescott Russell (UCPR), the forest is the largest in Eastern Ontario. Many unpaved forest roads, tracks and trails bisect the forest providing opportunity to access the site for nature



Figure 1: Map of Larose Forest

study and recreational activities.

The Larose Forest was acquired by the UCPR in 1928 and is still owned by the United Counties. Until 2000, the forest was managed by the Ontario Ministry of Natural Resources (OMNR). At present, the South Nation Conservation (SNC) is responsible for managing forestry operations. Larose Forest is, and has always been, a working forest, with logging an important aspect of the economy. It was not until the late 1970's that OMNR began to take a more holistic approach to forest management, in keeping with the growing public interest in habitat protection and species preservation. A 1979 booklet written by Scott Reid and published by

OMNR, noted amongst many objectives, that of "*provision of proper environmental conditions for wildlife*". Today's forest managers are very cognizant of the importance of managing for both logging and wildlife, and they care for the forest with a thorough understanding of environmental concerns.

The Prescott-Russell sand plains underlie much of the Larose Forest and the area is drained by both the Ottawa and the South Nation Rivers and their tributaries. Elevation is roughly 61–84 m above sea level and the terrain is generally flat with only a few small ravines or gullies (OMNR, 1979). When the vast Champlain Sea receded about 9,000 years ago, it left widespread deposits of Leda clay in its wake, along with scattered islands of sand, remnants of the broad river deltas

formed when sediment-bearing outwash of the glacial meltwaters swept into this inland sea.

We still see great swathes of sand in the forest, which reinforces the notion that relative to the age of the planet, the Champlain Sea was a very recent phenomenon. The mistake made by early European settlers of the area, was to overestimate the fertility of the soil and underestimate the impact that land clearing would have. It wasn't long after the last trees were cut down, that problems with erosion began. Without the stabilizing effect of trees to hold down the sand, the land began to take on the aspect of a desert with wind swept dunes and little vegetation. No wonder it became known as the Bourget Desert. As dreams of making a living from the land met hard reality, farms were abandoned. It was not until the early 1920's that a local Agricultural Representative for the Counties, Ferdinand Larose, decided to sow a new crop: trees. The forest we see today is the result of his vision and the work of countless tree-planters over the decades (Hanrahan, 2004, 2006). A more complete history of the forest can be found at http://www.ofnc.ca/conservation/larose/laroseforest.php

Although seedlings of both pine and spruce are being produced naturally, tree planting still occurs at various locations throughout the forest to ensure good regeneration.

With time, however, the forest is changing. Native hardwoods such as maples, beech and oak are now flourishing, and the pine and spruce plantations are gradually being replaced by a natural forest ecosystem. Along with this change in forest cover, comes a significant increase in all types of wildlife.

### LAROSE FOREST BIOBLITZ

A BioBlitz is an intensive and rapid survey of the biological diversity of a select area over a 24 hour period. It brings together scientists and naturalists with a wide range of expertise in a variety of fields. Participants count as many species from as many taxonomic groups as possible during this time. By counting every species found in a defined period and place, we get a 'snapshot' of the biological richness of a site. From this, we can determine potential future areas of study in the forest.

Thanks to these BioBlitz events, we continue adding many more species to our ongoing Larose Forest Species Inventories (available on the OFNC website www.ofnc.ca/conservation/larose/index.php)

The Larose Forest BioBlitz took place from 12 noon, on Friday, June 11<sup>th</sup> to 12 noon, Saturday, June 12<sup>th</sup>, 2010. Forty-three (43) scientists and naturalists participated for varying lengths of time

on one or both days. Their results are discussed below and shown in the attached Tables. The event was organized by the Prescott-Russell Stewardship Council (PRSC), The Ottawa Field-Naturalists' Club (OFNC), the United Counties of Prescott-Russell (UCPR) and South Nation Conservation (SNC). In 2006, we formed a BioBlitz Committee to help organize and coordinate our first BioBlitz. That committee continued to work on the 2007 BioBlitz and the 2010 event. Members of this committee represented the PRSC, UCPR, OFNC, Boise ést, and the South Nation Conservation (SNC), (members are listed in the Acknowledgements).

The weather on Friday was a mix of sun and cloud, more cloud than sun except for some late day sunny breaks. This was not the best weather for looking for insects, particularly butterflies. However, it was better weather than the drenching downpour and cool temperatures of Saturday! Fortunately, the poor conditions didn't deter anyone from participating, and while numbers of species found would certainly have been higher if the weather had cooperated, we still found more species than on either of the previous BioBlitzes.

As we have done in previous years, we provided microscopes, clipboards, Ziploc bags (for collecting specimens), and data sheets for participants. An excellent map, provided by UCPR, and given to each participant, was vital to the success of the BioBlitz. The map, an aerial



Parking sign

photograph of the area, showed BioBlitz boundaries by providing GPS location points for each corner of the site. The "old growth" sector was delineated with coordinates, and the main parking area was noted. The phone number of the Forestry Station, and other important information was printed on the flip side of the map, along with a map showing the entire forest (*See: Figure 2*).

Field guides for most taxonomic groups were available for reference purposes in the Forestry Station.

Large signs advising motorists of the event and asking them to slow down, were placed at all appropriate intersections. A large parking sign was erected at a convenient parking spot.

Coffee, water, juice, fruit and cookies were available throughout both days. A wrap-up lunch of gourmet sandwiches, salads, desserts, coffee, and fruit juice was provided at noon Saturday. With food and refreshments supplied, participants were able to spend the maximum amount of time on their surveys.

Volunteers manned the Forestry Station, providing information, advice, offering refreshments,

helping with queries, and in general ensuring that the operation ran very smoothly.

### FLORA AND FAUNA - BIOBLITZ RESULTS

Seven hundred and forty-three (743) species from 8 taxonomic groups were found on the BioBlitz. This is a significantly higher tally than for either of the previous two BioBlitz events in the forest. Given the poor weather for the 24 hour period, one can only wonder what else might have been found if the weather had cooperated. We are still awaiting some data which will most likely add more species to our lists. Please check the OFNC and the PRSC websites for updates after late October.

With the exception of a few bird bird records, all data were collected from within the BioBlitz site. Birds were counted from a slightly wider section of the forest.

Difficulty in finding experts available to participate meant that groups such as lichens and arachnids were not covered, although a few arachnid records were collected by participants in the course of surveying for other groups.

Data were collected for Mammals, Bryophytes (mosses and liverworts), Insects, Reptiles and Amphibians, Fish, Fungi, Birds, and Vascular Plants. A couple of mollusc observations and a single crustacean were also recorded. As is typical with most BioBlitz events, the greatest emphasis was placed on surveying for Birds, Vascular Plants and Lepidoptera.

Twenty-one (21) species of federal/provincial and/or regional significance/concern were found as follows: Two species of both federal and provincial concern were reported: Whip-poor-will (*Caprimulgus vociferus*), and Canada Warbler (*Wilsonia canadensis*). Provincially, both are listed as of Special Concern, while federally they are designated as Threatened. A third species, Common Nighthawk (*Chordeiles minor*) is listed provincially as being of Special Concern.

Four species ranked by the Natural Heritage Information Centre (NHIC) were observed; a fifth species may be ranked as S3, but more work is needed. It is currently designated "S3?". NHIC ranking is applied to rare species in Ontario but these species may not yet have been assessed by the Committee on the Status of Species at Risk in Ontario (COSSARO). In future, many SI, S2 and S3 species may be listed as a Species at Risk. Thirteen plant species found are considered Regionally Significant. It should be noted that many taxonomic groups have not been generally well studied (for example, most insects) and further work in the future to determine abundance and status provincially will likely result in many more species being ranked by the NHIC and no doubt by SARO. Further discussion of these species is given under the

appropriate sections below.

The scientists and naturalists participated for anywhere from 3 hours to more than 12 hours over the 24 hour period of the event. Seven remained in the forest well into the night-time, searching for nocturnal insects and birds.

### **BIOBLITZ SITE**

The area chosen for the 2010 BioBlitz was south of the usual Clarence-Cambridge Rd. sector. The site is bordered on the north by Route 200 E, on the south by Route 300 E, to the west by the South Nation River, and to the east by a N-S track running between Routes 200 and 200. De Lemieux Rd. bisects the site N-S.



Map of BioBlitz site, with old growth sector in red

### Habitats

The site is almost entirely forested, with the only open areas along the river and the roadsides. Forest cover is largely deciduous, but several red pine plantations are within the area. A few streams drain through the site, but at the time of the BioBlitz were nearly dry. One section of the site has some old growth characteristics, and adjacent to this is a large boggy area. There are four main trails, three west of de Lemieux Rd., and one on the east side, running north from Route 300.

### Wetlands and River Habitat

There are no cattail marshes or swamps on the site. However, a large open area with many bog characteristics lies between de Lemieux Rd. and the track on the east side of the site, near to the the "old growth" area. Sphagnum moss is the dominant groundcover. Round-leaved Sundew (*Drosera rotundifolia*) occurs in small numbers, and a number of grasses, sedges and rushes characteristic of bogs were noted. Probably most significant was the discovery of an exceptionally large population of *Carex folliculata*, which is not only considered Regionally Significant, but is listed by the NHIC as an S3 species (vulnerable in Ontario). Dwarf birch



(*Betula pumila*) was noted in the area, although we decided that another trip into the area for photographs and/or a specimen would be required, as this species is considered Regionally Significant in the area and as such, proof of its presence is invaluable and necessary.

The site is ringed with many mature trees, including numerous Tamarack (*Larix*). A number of shrubs and trees typical of damper sites, are filling in this open bogtype area. Mountain Holly (*Nemopanthus mucronatus*),

**Bog-type habitat** 

Winterberry (Ilex

*verticillata*), White Birch (*Betula papyrifera*), and Speckled Alder Alder (*Alnus rugosa*) are the dominant srub and tree species within the bog area.

A small man-made fire pond lies on the east side of de Lemieux Rd. The shores are fringed with typical wetland species including alder, Cattails (*Typha latifolia*), sedges, grasses, and Blue Flag Iris (*Iris versicolor*). Green Frogs (*Rana clamitans*) and Leopard Frogs (*Rana pipiens*) inhabit the pond. This is also where all but one species of fish were found.



Pond on de Lemieux Rd.



S. Nation River, showing the steep clay banks

The South Nation River extends from its headwaters along the St. Lawrence River, approximately 175 kms north to where it drains into the Ottawa River. A small section of this river formed the western boundary of the BioBlitz site. The banks along that section are relatively steep, and dense with Canada Goldenrod (*Solidago canadensis*). Other species growing in profusion along the banks include amongst many, Joe-pye-weed (*Eupatorium maculatum*), Stinging Nettle (*Urtica dioica*), Reed Canary Grass (*Phalaris arundinacea*), and Wild Cucumber (*Echinocystis lobata*). Giant Ragweed (*Ambrosia trifida*), Canada Anemone (*Anemone canadensis*) and a myriad of other plants also

grow along the banks. The banks themselves are prone to slippage due to Leda clay, and when wet, the banks and the shoreline can be very slippery.

During the event, only one fish species was reported from the section of river within the BioBlitz boundaries, a Carp (*Cyprinus carpio*). A few shorebirds were noticed along the shoreline, while the thickets adjacent to the open grassy areas held breeding birds such as Song Sparrow (*Melospiza melodia*) and Common Yellowthroat (*Geothlypis trichas*). Belted Kingfishers (*Ceryle alcyon*) carrying food were noted, and the banks provide good areas for their nesting tunnels.

### **Mixed Forest**



Much of the forest in the BioBlitz site is mixed hardwoods. Red Maple (*Acer rubrum*), as would be expected grows abundantly, particularly, but not only, on the damper sites. In drier locations Basswood (*Tilia americana*), Sugar Maple (*Acer saccharum*), Black Cherry (*Prunus serotina*) and a wide variety of other species are found. Wood Fern (*Dryopteris intermedia*), Sarsparilla (*Aralia nudicaulis*), Christmas Fern (*Polystichum acrostichoides*), Red Baneberry (*Actaea rubra*), Dewberry (*Rubus pubescens*) and a plethora of other species make up the herbaceous layer. A few Bitternut Hickory (*Carya cordiformis*) were a nice surprise.

**Mixed Forest** 

In the damper sites American Elm (Ulmus americana), Green Ash

(*Fraxinus pennsylvanica*) join Red Maple as the dominant tree species. Mountain Holly, Wild Raisin (*Viburnum cassinoides*), Round-leaved Dogwood (*Cornus rugosa*) are amongst the understory plants, while Swamp Dewberry (*Rubus hispidus*), Royal Fern (*Osmunda regalis*) and Cinnamon Fern (*Osmunda cinnamomea*) are abundant.

Warblers such as Ovenbird *(Seiurus aurocapilla)*, flycatchers such as Eastern Wood-Pewee *(Contopus virens)*, thrushes such as Wood Thrush *(Hylocichla*)



**Christmas Fern** 

*mustelina*), are among the many avian species that breed in these hardwood sites. They are also home to numerous mammals, insects and reptiles and amphibians.

It is evident that vernal pools are present in many spots, but the dry spring and light snow pack of the winter meant reduced water and all had dried up long ago. One would expect to find salamanders around these sites in a good year, but only one was found, an Eastern Red-back Salamander (*Plethodon cinereus*).



One small parcel, approximately 2 hectares in size, was identified as having old-growth characteristics by one of the professional foresters with South Nation Conservation. The site has "large trees over 50cm in diameter, over 120 years in age, it has mature climax species (white pine and hemlock), snags, downed woody debris in various stages of decay, mound and pit micro-topography, cavity trees, 4 structural canopy layers, basal area > 20 m2/ha)" and no evidence of any logging for many years (S. Hunter, pers. Comm.). It was felt that if the

Old growth site

stand was left alone, "free of significant human intervention, it should develop further to represent more closely the pre-settlement type of forest that was common to the region, and that which we hope to restore in Larose." (*S. Hunter, Pers. Comm.*) The site has a very different feel and look to it from most of the forest and although no plants or other taxa were found there different from other locations, it is quite likely that a survey earlier and later in the season could produce some interesting species.

### **Ravines**



Several ravines (gullies) and creek valleys wind their way through the site on the west side of de Lemieux Rd. In places they can be relatively deep and steep-sided. A shallow creek drains out to the South Nation River at one point. Ravines can be botanically interesting as they have generally been left alone (that is, not logged or planted). Wild Ginger (*Asarum canadense*) grows in profusion along one large section of the ravine. Where water seepages occur on the ravine slopes, Maidenhair Fern (*Adiantum pedatum*) is plentiful. Christmas Fern is also abundant in these sites.

**Maidenhair Fern** 

### Plantations

A few small Red Pine (*Pinus resinosa*) plantations are found primarily on the eastern side of de Lemieux Rd. Red Maple, Black Cherry, American Elm, Pyrola (*Pyrola* sp), Bracken (*Pteridium aquilinum*), Velvet-leaf Blueberry (*Vaccinium myrtilloides*) are amongst many plants growing where the canopy has opened and let more light fall to the forest floor. Fungi can be abundant in such areas, particularly in the fall.

### **Edges**



Trail between Routes 300E and 200E

Where one plant community meets another, a transition zone occurs. This is most frequently noticed alongside roads and trails where edge habitats provide a home and feeding area for a wide variety of species, and thus such areas can be very rich in wildlife. Periodic mowing prevents woody plants from taking over and allows grasses and wildflowers to flourish. These in turn are magnets for butterflies and a myriad of other insects, which all have a role to play in the ecosystem. The only such edges in the BioBlitz site are along the roads, along the South Nation

River shoreline and banks, and along some of the trails. Many non-native plants grow on such sites, and along de Lemieux Rd, and Routes 200 E, and 300 E. a mix of both native and non-

native species grow profusely, plants such as Ox-eye Daisy (*Leucanthemum vulgare*), Fleabanes (*Erigeron* spp.), Hawkweeds (*Hieracium* spp.) both native and non-native, Clovers (*Trifolium*), and many grass species including Timothy (*Phleum pratense*), Tall Fescue (*Festuca arundinacea*). It was along such areas that the majority of butterfly species were found.

### FAUNA

Birds, insects, mammals, amphibians, all wildlife needs a place to live, feed, breed, and find shelter. While many species are restricted to specific communities or habitats throughout their life cycle, others will utilize different habitats at different stages, moving from one to the other as necessary. Many amphibians, for example, require wetlands for breeding but move to upland areas later in their life cycle. Moose may utilize different areas for feeding in summer and winter. Birds may find shelter and food during migration in areas different from those they nest in. A mosaic of habitats encourages and promotes a healthy diversity of species. Larose Forest provides an exceptionally varied suite of habitats, as evidenced by the great variety of wildlife species present.

### Amphibians and Reptiles (Table 1)

Many of the amphibians and reptiles of Eastern Ontario can be found in Larose Forest. Ten (10) species were recorded during the BioBlitz, slightly fewer than on the last (2007). Only one turtle was recorded, Midland Painted Turtle (*Chrysemys picta*), an NHIC tracked species. However, turtle habitat is limited in this particular site so the lack of observations is not surprising.

Seven (7) species of frogs and toads were counted. Leopard Frogs and Green Frogs were found along the South Nation River, and around the small pond on de Lemieux Rd. Green Frogs are another species being tracked by the NHIC. Wood Frogs (*Rana sylvatica*), which typically can be an abundant species in the forest, were encountered in small numbers. This species breeds very early and once mating is over, they disperse from their temporary breeding spots across the woodlands where their perfect camouflage makes them hard to spot. The lack of vernal pools, or the fast drying up of such pools this spring, may have had an impact on all amphibians including salamanders, utilizing such spots.

Eastern Garter Snakes (*Thamnophis sirtalis*) are encountered in both open and wooded sites, sometimes basking on trails or hard surfaces heated by the sun (not a consideration during this BioBlitz). We found only a few during the event.



Eastern Red-backed Salamander

The sole salamander species found was the Eastern Red-backed Salamander (Plethodon cinereus), and only one individual was reported. This species lays its eggs in well-rotted stumps and logs, so well decayed they can be squeezed like a sponge. The forest is not short of such suitable nesting habitat, and in fact, Eastern Red-backed Salamanders are amongst the most commonly found in Larose. The only other salamander to be commonly encountered is the Red-spotted Newt, typically found in its terrestrial or eft stage. The other salamanders, while certainly present, are more of a challenge to find.

Any forest that can support 5 species of salamanders, as Larose does, scores high on the scale of ecological integrity. Larose has a lot of cool, damp forest habitat with numerous vernal pools, decaying logs and stumps and sphagnum moss. However, as anyone who has spent time looking for salamanders will know, finding them is easier said than done. I am certain that if someone had focussed only on finding these amphibians we would have recorded substantially more during the BioBlitz.

### Birds (Table 2)



**Cape May Warbler** 

We recorded 79 species of birds, including an addition to the existing bird list for the forest, Lesser Yellowlegs (*Tringa flavipes*), found along the shores of the South Nation River. Eighteen (18) warbler species were found, the same number as in 2007. Cape May warblers (*Dendroica tigrina*) are now an enduring presence in the forest as a breeding species. However, they are still not a common nesting species in the rest of the Ottawa region. During the first Ontario Breeding Bird Atlas (1981-1986), no Cape May Warblers were recorded

anywhere in Region 24, which includes Larose Forest. Typically, this species breeds in the Northern and Southern Shield regions, although even there, they are not abundant, and

according to the recent *Atlas of the Breeding Birds of Ontario* (2007), have actually decreased in the Southern Shield region. They require spruce trees of a certain height (usually greater than 12 m) in which they build their nests close to the trunk and very high up, thus making it nearly impossible to locate the nest. However, breeding is usually confirmed by finding the adults on breeding territory during nesting season and finding adults carrying food back to the nest. It would appear that Larose Forest is the only sure place in eastern Ontario to find this species breeding, where it has done so annually since at loast 2001, with around 3 pairs reliably found each of **Canada Warbler (Wilsonia canadensis)** Three Canada Warblers were found in the area. This species has been identified by the Committee on the Status of Wildlife in Canada (COSEWIC) as a threatened species federally, and is listed as a species of Special Concern (SC) provincially. Canada Warblers nest on the ground or in stumps or logs, in damp to wet forests. The relatively inaccessible habitat makes it difficult to survey these birds, but fortunately, they have a very loud and distinctive call. The 2010 BioBlitz area contained several sections of excellent Canada Warbler habitat, which is where this species was found.

least 2001, with around 3 pairs reliably found each year.

No owls were located during the BioBlitz and only one raptor, a Northern Harrier (*Circus cyaneus*). This does not mean, however, that they are absent from the BioBlitz site, and a survey at a different time of year, or under better weather conditions, could well turn up several species.

On the 2010 BioBlitz, we recorded 8 Whip-poor-wills (*Caprimulgus vociferus*). During the 2006 BioBlitz, 32 were counted, and in 2007, 20 were found, leading some birders to call Larose Forest the hotspot for this disappearing species. Whip-poor-will's do not call until after the sun has gone down, and don't call much unless there is a lot of moonlight. Birders know that to conduct a proper survey for the species, all conditions have to be right, which was not the case during this BioBlitz. In Larose, the area of greatest abundance for Whip-poor-wills has typically been along Clarence-Cambridge Rd. in spots where the conifer plantations are fairly open, or where the forest succession is still in a relatively early stage and there are openings within the forest providing the scrubby habitat this species prefers. Reasons for the disappearance of this species from many parts of its former range are not entirely understood. Habitat loss appears to be the major contributing factor. In 2007, the National Audubon Society in the US, said the species had declined 57% over 40 years.

Whip-poor-wills have recently been listed as threatened federally under COSEWIC, and as a species of Special Concern provincially. Larose Forest provides critical habitat for this declining species and protection and enhancement of their habitat should be included in any forest management plans.

Another Caprimulgid species, the Common Nighthawk (*Chordeiles minor*), was recorded in Larose Forest during this BioBlitz (1individual) although not within the BioBlitz area. It is also in decline, and is also considered a species of Special Concern, provincially. At one time, it was a common sound and sight in the city of Ottawa where it nested on flat roofs. In its natural habitat, it nests on the ground or on rocky outcrops, primarily in grasslands, agricultural fields, bogs,

fens, forest openings, and the like, according to the Ontario Breeding Bird Atlas (2007). Considered very common in the early decades of the 20<sup>th</sup> centruy, by the 1970's birders were beginning to notice declines, and by the time of the last Ontario Breeding Bird Atlas, their numbers had declined substantially, with the most notable declines occurring in the Southern Shield region (IBID). We have found the occasional one flying over Larose Forest in previous years, probably nesting in some of the agricultural land, and feeding on insects above the trees.

A possible Philadelphia Vireo was noted, but because this species can sound remarkably like Red-eyed Vireo and because the bird was not seen, we decided to leave it off the list, but to make note of it here as something to be aware of and look out for in subsequent years. This is a bird of open deciduous woodland, particularly that in the early successional stage. The species normally breeds further north and west of this region.

### Insects (Tables 3)

Two-hundred and thirty-seven (237) species of insects were identified during the 2010 BioBlitz, nearly twice as many as in the last one (122 species in 2007). Of these, an astonishing **102** *species* are new for the existing Larose Forest inventories. Even more remarkable, 5 species have never before been recorded in the Ottawa region. These are all craneflies in the families Limoniidae and Tipulidae. According to Dr. Fenja Brodo, the cranefly expert who made these observations, 2 species may well represent significant range extensions northward. Dr. Brodo has participated in all three Larose BioBlitz events and each time has found cranefly species new to the region. In 2007, she noted that she has barely scratched the surface of the diversity of craneflies to be found in the forest, and reiterated that again in 2010. The forest environment is richly varied and the continued discovery of new-to-the-region species points out that there is still much to discover. The 2010 BioBlitz brought the number of cranefly species found in the forest to



Long-horned Beetle (Saperda candida)

55.

Diane Lepage, Fenja Brodo and several other naturalists, set up sheets and black lights in the woods near the parking area off Route 200 E. They were gathering data on moths (Diane), Craneflies (Fenja), and other nocturnal insects (all). Further down de Lemieux Rd. Dr. Bruce Gill also set up a black light operation to look for nocturnal insects. Many of the new additions to the Larose Forest Insect Inventory were moths, craneflies and other insects found at this time.

Lepidoptera and Odonates are both well-known and

well-studied groups of insects, with a good number of excellent field guides available to help with identification. This is not so for other insect groups.

A substantial number of moths were recorded during the BioBlitz, 68 species in total, of which 29

were new additions to our existing list. Moths have been relatively well studied in Larose Forest, thanks to Diane Lepage, who has made many forays there over the years to record and photograph moths. Each time, species new to the list are discovered which once more points to the richness of the area and to the fact that we are still in the process of finding out more about the fauna (and flora) of the Larose Forest.



Butterfly habitat was not ideal, as it was largely confined to the edges of two relatively busy roads, and did not in total add up to a large area, particularly when compared to the last two BioBlitz sites. Additionally, many butterfly species emerged early this year,

and by the time of the event, some species had dwindled or were finished for the season. Nonetheless, 23 species were found (33 in 2007),

Long Dash Skippers

including a new addition to the list,

Silvery Checkerspot (Chlosyne nycteis).

Few butterfly species were found in high numbers, but the larvae of one species, Red Admiral (Vanessa atalanta), were abundant. The larval food plant is stinging nettle (Urtica dioica), and a very large stand occurs on the banks above the South Nation River in the BioBlitz site. Here, hundreds of caterpillars were found feeding on the plants. It had been a very good year for the migratory Red Admiral, and thousands of the butterflies flew northward through the



**Red Admiral caterpillar** 

spring and then laid eggs on Stinging Nettles throughout the region. Oddly enough, few adults



Arrowhead Spiketail, a rare species locally and provincially

were found on the BioBlitz.

The other butterfly species present in good numbers during the event were European Skipper (Thymelicus lineola) (close to 200 individuals), Long Dash Skipper (*Polites* mystic) (approximately 100 individuals), and Northern Crescent (Physiodes cocyta) (150 to 200 individuals).

Sixteen (16) species of Odonates (Dragonflies and Damselflies) were found, one less than in the 2007 BioBlitz. Four were new for our Larose Forest inventory, and one of these was a real rarity, the Arrowhead Spiketail (Cordulegaster obligua). This striking and unmistakable

species was found by Gillian Mastromatteo and Deb Stevenson along the roadside. It is listed as rare and local by Bracken and Lewis (2008) and as an S2 species by the NHIC (imperilled in Ontario; usually between 6-20 occurrences). According to Jones (2008), this species is *"elusive and rarely encountered anywhere in Ontario."* Their habitat is described as *"small and shallow, seepage-fed forest streams that are at least partially shaded."* (IBID)

The number of insects found during this BioBlitz represent a minute fraction of those inhabiting the Larose Forest. Because most insects are difficult to find, occur for only a brief time, have specific habitat requirements, or appear in a season other than early summer, it would be the work of a lifetime to accurately catalogue even one group of insects, such as Diptera (Flies) or Coleoptera (Beetles). Nonetheless, over the years, little by little, we have increased our knowledge of the many orders and families of insects inhabiting Larose Forest. During the 2010 BioBlitz, 15 new families of insects were added to our ongoing inventory. Thanks to the work of South Nation Conservation participants, we now have many more aquatic insects included in our list.

### Arachnids (Table 4)



Arachnids (spiders, ticks and mites) were noted on a casual basis by some participants during their surveys for other taxa. We were unable to find an expert in this group during the 2010 BioBlitz. Nonetheless, 10 species were found. Of these, 4 were new for the Larose Forest Arachnid inventory. It is evident that there are many species of arachnids yet to be recorded in the forest.

### Mammals (*Table 5*)

During the 2010 BioBlitz , 12 species of mammals were found, one more than in 2007. Most were based on evidence of recent presence in the area (fresh scat, tracks, etc.), although there were several sight records. Most common were the tracks and scat of White-tailed Deer

Nursery Web Spider

(*Odocoileus virginianus*). Evidence of Moose (*Alces alces*) was far less widespread down in this corner of the forest. However, during the summer months, Moose like to spend a lot of time feeding on aquatic vegetation in wetlands and swamps, which occur more widely north of the BioBlitz site. They seem to particularly favour fresh willow and alder growth, as well as water lilies. Signs of winter presence of this large mammal were indicated by old browse marks on Red Maple saplings. Managing habitat for this large mammal should be a part of any forest management plan.



**Red Squirrel feeding site** 

The overall list of mammals found in the forest contains 27 species, many of them small and/or secretive and elusive. However, the ability of Larose Forest to support and sustain a good variety of mammals with different needs and habitat requirements, reflects the continuing importance of this site for maintaining species diversity. Further work on assessing the abundance of some of the key species would provide information important for management decisions.

### Fish (Table 6)

Thanks to the work of participants from South Nation Conservation, we added more fish species to our existing inventory as well as many aquatic insects previously unrecorded on our inventory.

Eight species of fish were recorded during the event. SNC staff set out fish traps along the South Nation River and in the small pond along de Lemieux Rd. Seven (7) species were tallied from the pond along de Lemieux Rd. A number of hybrid Northern Redbelly Dace/Finescale Dace *(Phoxinus eos x neogaeus)* were reported. Both the Northern Redbelly Dace *(Phoxinus eos)* and the Finescale Dace *(Phoxinus neogaeus)* were noted as being common. The four other species were found in much smaller numbers (either single individuals or 2 or 3 of each). Only one species was reported from the river itself, a single Carp observed swimming by close to shore.

### FLORA

### Vascular Plants (Table 7)

Two hundred and ninety-nine (299) species of vascular plants were recorded (compared to 285 during the 2007 BioBlitz). Thirteen (13) are considered Regionally Significant, and one, *Carex folliculata*, is ranked as an S3 species by the NHIC. Seventen (17) new species were added to the Larose Forest Plant inventory. Fifty-seven (57) species are non-native, and most of these were reported from along the sides of roads and trails, as would be expected. Disturbed areas, such as roadsides, are readily colonized by non-native flora such as Ox-eye Daisy



(Leucanthemum vulgare), various clovers (*Trifolium* and *Melilotus*), and Goat's beard (*Tragopogon pratensis*). Other non-native plants such as Heal-all (*Prunella vulgaris*), Manitoba Maple (*Acer negundo*), Common Plantain (*Plantago major*), and Coltsfoot (*Tussilago farfara*) can be found along trails through woodlands. Trailheads along roads are also often used for dumping garden waste, another source of non-native flora.

Long Sedge (*Carex folliculata*) was found in the bog-type area near the "old growth" sector. It was growing in some profusion, and was, according to Stephen Darbyshire, the botanist who found it, one of the biggest populations he has seen in the Ottawa region. Locally it is also found in the Petrie Islands, Mer Bleue, Baxter Conservation Area, and a few other sites. Another species new

Long Sedge

for our inventory was also found in this area, the Regionally Significant Dwarf Birch (*Betula pumila*), although we decided that we need either a photograph or a specimen in order to completely verify the record of this rare for the area species. Also of note is the Huckleberry (*Gaylussacia baccata*) shrub which was found in good numbers in this habitat, and is new for the Larose Plant list. A more thorough exploration of this site earlier and later in the season could produce some more interesting plant species.

Blue Cohosh (*Caulophyllum thalictroides*), while a common plant, has not been recorded from Larose in the past. However, it was found in several locations during the BioBlitz. This early flowering plant may have simply been overlooked previously.

A very large stand of Wild Ginger was found along the banks of the ravine on the west side of de Lemieux Rd., interestingly perhaps one of the biggest stands found in

### **Invasive Species**

The bad news is that both species of buckthorn, Common and Glossy, were found scattered throughout the site. Most observations were of seedlings or saplings, suggesting that there is a seed source (fruiting trees) somewhere in the vicinity. The good news is that at present the trees are small and easily removed. An effort should be made in the next year to control this species before it becomes ineradicable.

More good news: Few other invasive plant species were found at this time. No Garlic Mustard (*Alliaria officinalis*), no Dog-strangling Vine (*Cynanchum vincetoxicum*), which are, along with the buckthorns, the most common and the most destructive to natural ecosystems. Flowering Rush (*Butomus umbellatus*) was found in small numbers along the shore of the South Nation River, and Purple Loosestrife (*Lythrum salicaria*) was also reported in scattered locations. The Galerucella beetle has recently been found in Larose, and this biocontrol agent for the loosestrife could have an impact on the population in time.



**Flowering Rush** 

the forest, as far as is known.

The impressively high number of species (299) found under inclement weather conditions (not conducive for extensive exploration) and the fact that so many new species for our ongoing inventory were discovered during this brief, 24 hour period, is surely an indication that the site warrants further investigation. As has been noted by many botanists and forest ecologists, vegetation diversity is one of the key considerations for a healthy forest ecosystem. Schulz and Gray (2004), discuss the importance of this diversity as follows: "*The composition, diversity*,

and structure of vascular plants are important indicators of forest health. Plants are the source of primary production and the main determinant of habitat. Changes in vegetation can have cascading effects through an ecosystem. Changes in species diversity, structural diversity, and the abundance of non-native species are common national concerns, and are part of the international criteria for assessing sustainability of forestry practices."

The BioBlitz site warrants further botanical investigation. Spring and mid-summer are two periods during which site visits could produce some interesting results.

### Bryophytes (Table 8)

The term Bryophytes refers to mosses, liverworts and hornworts. During the 2010 BioBlitz, 54 species were recorded, of which 13 were new for our Larose Forest Bryophyte inventory. One species, *Orthotrichum ohioense*, is ranked as S3 by the NHIC. Because the capsules on another moss, *Ulota coarctata*, were immature, positive identification was difficult, hence the listing of this species with a question mark (?), but if it is indeed *Ulota coarctata*, then it is also ranked S3 by the NHIC. A liverwort, *Pellia neesiana*, is given an "S3?" ranking, meaning that more work is needed to determine whether this liverwort is as scarce in the province as current records suggest.

Additional work on Bryophytes in the future will undoubtedly increase the current Larose Forest list considerably. It was not until the first (2006) BioBlitz that any work on inventorying this important group was performed, and since then, each BioBlitz has added a significant number of new species to the ongoing inventory, thanks to the work of Bryologist Linda Ley.



Bryophytes differ from other green plants in many ways, perhaps most significantly in their lack of vessels to transport food and water. Lacking roots, bryophytes must absorb nutrients into their leafy tissues directly from moisture in their surrounding environment. Because they require cool, moist sites for survival, bryophytes are generally restricted to specific habitats. Remarkably, they can withstand both dessication and freeze-thaw cycles. During particularly dry spells, they become dormant, but when moisture returns, they will revive. We have all seen mosses that look brown and dehydrated, only to return after a rainfall and discover that they are thriving.

Polytrichum

Although often overlooked, bryophytes in fact play an important role in the overall health of a forest ecosystem." *Their ecological roles are many. They provide seed beds for the larger plants of the community, they capture and recycle nutrients that are washed with rainwater from the canopy and they bind* [protect] the soil to keep it from eroding. In the northern hemisphere peatlands, wetlands often dominated by the moss Sphagnum, are particularly important bryophyte communities." (Crandall-Stotler, 2005). In addition, "many are pioneer plants, growing on bare rock and contributing to soil development.... They provide habitat for other plants and small animals, as well as microorganisms like N2-fixing blue-green bacteria." (Carrington, 1997) They are also important "bioindicators of pollution and environmental degradation." (IBID)

And finally, Bryophytes are remarkably beautiful and intricately designed little plants, well worth more than a mere glance.

### Mushrooms and Fungi (Table 9)

Fewer mushrooms and fungi were found during the 2010 BioBlitz than in the last (2007), 40 species compared to 57. Of these, 9 species were additions to the existing Larose Forest Mushrooms and Fungi inventory. All of the experts who participated noted that the area was well worth exploring in more detail in the fall, which is when fungi really come into their own. Despite the wet conditions on the BioBlitz, the previous months had been dry and this, combined with the time of year, are undoubtedly why fewer species were found.

Larose Forest is known for its singular diversity of fungi and the *Mycologues amateurs de Québec* have been exploring this forest for nearly 30 years. Several of their members participate in our BioBlitzes, and hence, they also know the forest well and continue on their own to discover additional species for the ongoing inventory.



Schizophyllum commune

Many fungi are tiny and difficult to find. Some grow on leaves, hidden in fissures in bark and on logs and in a myriad of other obscure locations. On the other hand, many fungi are prominent, colourful and eye-catching, such as large polypores like the Red-banded Polypore (*Fomitopsis pinicola*) or the Amanitas. Some are visible year-round (mostly the polypores), while others require moisture such as rainfall, to appear. This is partly why we see so many species in the fall, as the dry days of summer depart. In fact,

the most visible are those mushrooms that appear all over the place in varying shapes, sizes and colours in late summer and fall. They come in an abundance of colours, from muted pale beiges and browns to striking opulent reds, oranges and yellows, and many colours in between. These are what most people think of when they think of mushrooms. Unless of course, they are interested in edible mushrooms, which is a whole other study.

There are two main types of fungi: wood rotting fungi and mycorrhizal fungi. Of the wood-rotting fungi, perhaps the most visible mushrooms are those we see in all their colour and variety in the

fall after some rain. These are saprophytic mushrooms, the ones needing moisture in order to grow. These mushrooms are not just things of beauty, however, for they have an important role to play in the forest ecosystem as primary recyclers. By breaking down woody material and other plant matter such as leaves, they not only help to replenish the soil through conversion of debris to humus, but are important for carbon and nitrogen cycling. Polypores are often considered the best and the most efficient of the wood decaying fungi. The work of all the wood rotting fungi goes on below ground (or under the tree bark). The attractive mushrooms we see are merely the fruiting bodies, a visible manifestation of a complex structure.



Fomitopsis pinicola

Scientists are continually finding new ways in which the complex interactions of fungi in the forest ecosystem work. As Hoff, et al (2004) notes, "Studies of fungal biodiversity in forest ecosystems can provide baseline information for determining interrelationships among organisms and indicate potential roles of fungi in forest ecosystem dynamics. Understanding the role of fungi in forest ecosystem processes is key to characterizing stability and succession of biological components (for example, trees), while information on fungal biodiversity can provide insight on sustaining fungi as beneficial resources."

Mycorrhizal fungi, the second main group, are relatively familiar to many naturalists who understand the importance of the symbiotic relationship they form with trees (and other plants). While not all species require this relationship in order to grow, some cannot thrive without it. One could think of the mychorrhizal fungi as a great underground spider web, extending its filaments under the forest floor, connecting one plant to another. The web of life. Perhaps not quite that fanciful, but close enough. John Smith (2004) explaining how the mychorrhizal fungi work in relation to trees notes "...the underground mycelium of the mushroom grows extensively around the root tips of specific trees forming a protective sheath with some mycelium penetrating into the root tissue. The mycelium grows also in the soil mass and, eventually, appears at the surface as typical mushroom fruit-bodies or underground as solid fungal masses...".

Interestingly, complex relationships with other unlikely organisms have been formed by many types of fungi. Some insect species are entirely dependent on symbiotic relationships with specific fungi. Some fungi provide chemical defences against herbivores for grasses and trees. One wood-rotting fungus even has a complex mutually beneficial relationship with flying squirrels. These animals relish truffles which are the underground fruiting bodies of certain fungi, and which flying squirrels can detect with their highly developed sense of smell. After consuming these treats , the squirrels later deposit their scat elsewhere in the forest, scat which contains the still viable spores of the fungi. Thus, the squirrels get a tasty treat, and the truffle spores are able to spread to other parts of the forest where the process can begin again.

Even parasitic fungi, those that occur on living trees and cause rot to set in, eventually killing the tree, have a beneficial role in forest ecology. As the tree dies, insects move in and further weaken the tree, but these insects attract species such as woodpeckers which in the process of tapping into the tree seeking insects, create cavities. These cavities provide homes for many



Lycogala epidendron

species of birds and mammals such as flying squirrels. Downed trees or logs, give shelter and breeding sites for innumerable creatures including snakes, salamanders, toads, and insects which in turn are fed upon by other forest animals. When a tree falls it creates a gap in the canopy allowing more light to penetrate the forest floor, encouraging new growth.

During the BioBlitz, four species of slime mould were found. These complex and unusual organisms are difficult to classify. They

move, they appear to feed much as an animal would do, yet they produce spores within fruiting bodies like fungi. They are too complicated a subject for discussion here. Instead, one can appreciate them for their interesting forms and often beautiful fruiting bodies.

### Miscellaneous Observations (Table 10)

Several non-insect arthropods were found during this BioBlitz. Isopods (pill bugs and sow bugs) are primarily terrestrial or marine species, with very few being known from freshwater habitats. Those that do occur in such areas typically scavenge on dead animal and plant material in either streams or springs, or shallow bays and ponds. During the BioBlitz, a number of Asselids (Family Asselidae) were recorded. These are a new addition to our Larose Forest inventory.

Also new to the inventory is crayfish (*Cambarid* sp.) of which several were found. These freshwater decapods (Order Decapoda) can be found in many diverse locations from large rivers, to swamps, ponds, even wet meadows. Omnivorous in their appetite, they feed on both aquatic plants and animals. They are interesting creatures, well worth further investigation.

A number of Pea Clams (*Pisidium* sp.) were recorded from various locations along the river. Freshwater molluscs are often difficult to identify to species, and the complexity of doing so is a whole study in itself. It would be worthwhile to do further work on the Pelecypoda order in the future. **Participants:** The participants in the BioBlitz gave freely of their time to help inventory the flora and fauna of Larose Forest and we are very grateful for their work. Many thanks to the following:

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Some BioBlitz participants relaxing after a day in the field

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### Table 1

### Reptiles and Amphibians: Larose Forest BioBlitz June 11/12, 2010

### CAUDATA

Plethodon cinereus

### SALIENTA

Bufo americanus Hyla crucifer Hyla versicolor Rana sylvatica Rana pipiens Rana clamitans Rana catesbeiana

### TESTUDINES

Chrysemys picta

### SQUAMATA

Thamnophis sirtalis

Newts and Salamanders

Eastern Red-back Salamander

### **Toads and Frogs**

American Toad Spring Peeper Gray Treefrog Wood Frog Northern Leopard Frog Green Frog Bullfrog

Turtles Midland Painted Turtle

Lizards and Snakes Eastern Garter Snake

Data: all BioBlitz participants



**Green Frog** 

### **Birds: Larose Forest BioBlitz** June 11/12, 2010

Species in blue are new to the Larose Forest List SC indicates a species that is listed provincially as of Special Concern under Ontario's Endangered Species Act.

### ANATIDAE

Branta canadensis Aix sponsa Anas platyrhynchos

PHASIANIDAE Bonasa umbellus

ARDEIDAE Ardea herodias

CATHARTIDAE Cathartes aura

ACCIPITRIDAE Circus cyaneus

SCOLOPACIDAE Actitis macularius Tringa flavipes Gallinago gallinago Scolopax minor

LARIDAE Larus delawarensis

COLUMBIDAE Zenaida macroura

CUCULIDAE Cuckoos Coccyzus erythropthalmus Black-billed Cuckoo

CAPRIMULGINAE Chordeiles minor Caprimulgus vociferus

ALCEDINIDAE Ceryle alcyon

Canada Goose Wood Duck Mallard

Ducks

Partridges Ruffed Grouse

Herons Great Blue Heron

Vultures **Turkey Vulture** 

Hawks Northern Harrier

Shorebirds Spotted Sandpiper Lesser Yellowlegs Wilson's Snipe American Woodcock

Gulls **Ring-billed Gull** 

Doves Mourning Dove

Goatsuckers Common Nighthawk SC Whip-poor-will SC

Kingfishers **Belted Kingfisher**  PICIDAE Sphyrapicus varius Picoides pubescens Picoides villosus Colaptes auratus

**TYRANNIDAE** Contopus virens Empidonax alnorum Empidonax minimus Sayornis phoebe Myiarchus crinitus Tyrannus tyrannus

VIREONIDAE Vireo solitarius Vireo olivaceus

CORVIDAE Cyanocitta cristata Corvus brachyrhynchos Corvus corax

HIRUNDINIDAE Tachycineta bicolor Hirundo rustica

PARIDAE Poecile atricappilus

SITTIDAE Sitta canadensis Sitta carolinensis

CERTHIIDAE Certhia americana

#### Woodpeckers

Yellow-bellied Sapsucker Downy Woodpecker Hairy Woodpecker Northern Flicker

**Flycatchers** Eastern Wood-Pewee Alder Flycatcher Least Flycatcher Eastern Phoebe Great Crested Flycatcher Eastern Kingbird

Vireos Blue-headed Vireo Red-eyed Vireo

Jays and Crows Blue Jay American Crow Common Raven

Swallows Tree Swallow Barn Swallow

Chickadees Black-capped Chickadee

Nuthatches **Red-breasted Nuthatch** White-breasted Nuthatch

Creepers Brown Creeper

Eastern Bluebird Veery Hermit Thrush Wood Thrush American Robin

Waxwings

Cedar Waxwing

Wrens Winter Wren

Kinglets

Kinglet

Thrushes

Golden-crowned

Mockingbirds, Thrashers Gray Catbird

BOMBYCILLIDAE Bombycilla cedrorum

Dumetella carolinensis

TROGLODYTIDAE

REGULIDAE

TURDIDAE

Sialia sialis

MIMIDAE

Regulus satrapa

Catharus fuscescens

Hylocichla mustelina

Turdus migratorius

Catharus guttatus

Troglodytes troglodytes

### PARULIDAE

Vermivora peregrina Vermivora ruficapilla Dendroica petechia Dendroica pensylvanica Dendroica magnolia Dendroica tigrina Dendroica caerulescens

Dendroica coronata Dendroica virens

Dendroica fusca Dendroica pinus Mniotilta varia Setophaga ruticilla Seiurus aurocapilla Seiurus noveboracensi Oporornis philadelphia Geothlypis trichas Wilsonia canadensis

### THRAUPIDAE

Piranga olivacea

### **EMBERIZIDAE**

Spizella passerina Melospiza melodia Melospiza georgiana Zonotrichia albicollis

### CARDINALIDAE

#### Cardinals

Tanagers

Sparrows

Scarlet Tanager

Chipping Sparrow

Song Sparrow

Swamp Sparrow

White-throated Sparrow

Wood-warblers Tennessee Warbler Nashville Warbler Yellow Warbler **Chestnut-sided Warbler** Magnolia Warbler Cape May Warbler Black-throated Blue Warbler Yellow-rumped Warbler Black-throated Green Warbler Blackburnian Warbler **Pine Warbler** Black-and-white Warbler American Redstart Ovenbird Northern Waterthrush Mourning Warbler Common Yellowthroat **Canada Warbler SC** 

Cardinalis cardinalis Pheucticus Iudovicianus

**ICTERIDAE** Agelaius phoeniceus Quiscalus quiscula Icterus galbula

FRINGILLIDAE

Carpodacus purpureus Purple Finch Carduelis tristis American Goldfinch Coccothraustes vespertinus Evening Grosbeak

Data collected by: K. Allison, D. Brunet, D. Corvino, R.

Curtis, C. Hanrahan, B. Ladouceur, J. Martin, J. Mansell, G. Mastromatteo, D. Stephenson, F. Venne

### Northern Cardinal Rose-breasted-Grosbeak

Red-winged Blackbird

Common Grackle

**Baltimore Oriole** 

### Blackbirds

Finches

-31-

### Table 3

### Insects: Larose Forest BioBlitz

### June 11/12, 2010

- Non-native species indicated by an asterisk\*
  - Regional status for Odonates follows Bracken and Lewis (2008) : U Uncommon, S- Scarce, R-Rare, VR-Very Rare. W-Widespread, L-Local
- Species in blue type are new additions to the Larose Forest Inventory
  - Species in red type are new for the inventory and for the region
  - Provincial status:
    - S2 Imperiled in Ontario; usually between 6-20 occurrences.

#### Dorocordulia libera Epitheca canis **EPHEMEROPTERA Mayflies** BAETIDAE **Small Minnow Mayflies** LIBELLULIDAE Skimmers Baetid sp. Small Minnow Mayfly Leucorrhinia hudsonica

**CAENIDAE** Caenid sp.

**EPHEMERELLIDAE** Ephemerellid sp.

**HEPTAGENIIIDAE** Heptageniid sp.

LEPTOPHLEBIIDAE Leptophlebiid sp.

### **ODONATA**

Suborder Zygoptera COENAGRIONIDAE Calopteryx maculata Enallagma sp.

Enallagma annexum Ischnura posita Nehalennia irene

Suborder Anisoptera **AESHNIDAE** Basiaeschna janata

GOMPHIDAE Gomphus fraternus

CORDULEGASTRIDAE Cordulegaster obligua

### CORDULIIDAE

**Small Squaregills Small Squaregill** 

**Spiny Crawlers** Spiny Crawler

**Flatheaded Mayflies** Flathead Mayfly

Pronggills Pronggill

### Dragonflies, Damselflies

Damselflies Pond Damsels Ebony Jewelwing Bluet sp. Northern Bluet Fragile Forktail Sedge Sprite

Dragonflies Darners Springtime Darner, U.L.

Clubtails Midland Clubtail. S.L

Spiketails Arrowhead Spiketail, R, L. S2

Emeralds

Leucorrhinia intacta Libellula julia Libellula lydia Libellula pulchella Libellula quadrimaculata

**PLECOPTERA** PERLODIDAE Perlodid sp.

### ORTHOPTERA

TETTIGONIIDAE Conocephalus sp. Tettigonid sp.

**HEMIPTERA True Bugs** APHIDIDAE Aphids Paraprociphilus tesselatus woolly alder aphid

CICADELLIDAE Cicadellid sp. Draeculacephala zeae

CERCOPIDAE Philaenus spumarius

DERBIDAE Cedusa incisa

MIRIDAE Adelphocoris lineolatus Lopidea media Miris dolabratus Poecilocapsus lineatus

Racket-tailed Emerald **Beaverpond Baskettail** 

Hudsonian Whiteface, U,L Dot-tailed Whiteface Chalk-fronted Corporal Common Whitetail Twelve-spotted Skimmer Four-Spotted Skimmer

**Stoneflies Periodid Stoneflies Periodid Stonefly** 

### Grasshoppers, Crickets and Katydids **Shield-backed Crickets** Meadow Katydid Katydid sp.

Leafhoppers Leafhopper Leafhopper

Spittlebugs Meadow Spittlebug

**Planthoppers** Panthopper

Plant Bugs Alfalfa Plant Bug\* Plant Bug Madow Plant Bug Four-lined Plant Bug

#### NABIDAE

Nabicula subcoleoptrata Nabis americoferus

#### PENTATOMIDAE

Cosmopepla bimaculata Euschistus tristigmus Pentatomid spp. Podisus brevispinus

### LEPIDOPTERA

MOTHS PSYCIDAE Psycidae sp.

GELECHIIDAE Dichomeris ochripalpella

TORTRICIDAE Clepsis persicana

Olethreutes astrologana

LIMACODIDAE Lithacodes fasciala

Tortricidia testacea

**PYRALIDAE** Crambus girardellus Desmia funeralis

Evergestis palliate

Munroessa icciusalis

### GEOMETRIDAE

Besma endropiaria Campea perlata Dysstroma hersiliata Euchlaena obtucaria Eufidonia convergaria Hypagyrtis unipunctata

#### Iridopsis defectaria

Lobophara nivigerata Macaria aemulataria Macaria minorata Macaria submarmorata Metanema inatomaria Damsel Bugs Damsel Bug Damsel Bug

Stink Bugs Two-spotted Stink Bug Dusky Stink Bug Stink Bug Stink Bug

Moths and Butterflies

**Shining Dichomeris** 

White Triangle Leaf-

The Astronomer Moth

Yellow-shouldered Slug

Early Button Slug Moth

Grape-Leaf-folder

**Purple-backed** 

Cabbageworm

Straw Besma Moth

Obtuse Euchlaena

Pine Powder Moth

**Orange-barred Carpet** 

**Pine Measuring Worm** 

**Brown-shaded Gray** 

Powdered Bigwing

**Minor Angle Moth** 

Common angle

Pale Metanema

Pale Beauty

Moth

Moth

roller

Moth

Probole alienaria Scopula inductata Scopula limboundata Tetracis crocallata Trichodezia albovittata Xanthotype sospeta Xanthotype urticaria

### DREPANIDAE

Drepana arcuata Oreta rosea

SATURNIDAE Antheraea polyphemus

Lapara bombycoides Pir Pachysphinx modesta Po

### ARCTIIDAE Ctenucha virginica

**SPHINGIDAE** 

Cycnia tenera Eilema bicolor Grammia virgo Holomelina laeta Lophocampa maculata Pyrrharctia isabella Spilosoma virginica Spilosoma latipennis

#### NOCTUIDAE

Acronicta americana Agriopodes fallax Balsa labecula Balsa tristrigella Bomolocha baltimoralis Clostera albosigma Colocasia propinguilinea Ellida caniplaga Eudryas grata Gluphisa septentrionis Hypagyrtis piniata Itame ribearia Maliattha synochitis Nerice bidentata Noctua pronuba Panthea acronyctoides Parallelia bistriaris Peridea ferriginea Phlogophora iris Plusia contexta Schizura unicornis Tarachidia erastriodes

Alien Probole Soft-lined Wave Large Lace Moth Yellow Slant-line White-striped Black Crocus Geometer False Crocus Geometer

Arched Hooktip Rose Hooktip

**Polyphemus Moth** 

Pine Sphinx Poplar Sphinx

# Virginia Ctenucha

Delicate cycnia Bicoloured Moth Virgin Tiger Moth Joyful Holomelina Spotted Tussock Moth Isabella Tiger Moth Virginia Tiger Moth Pink-legged Tiger Moth

American Dagger Moth Green Marvel White-blotched Balsa Moth Three-lined Balsa Moth Baltimore Bomolocha Sigmoid Prominent **Close-banded Yellow** Linden Prominent Moth **Beautiful Wood Nymph Common Gluphisa** Pine-measuring Worm Moth Currant Spanworm Moth Black-dotted Lithacodia **Double-toothed Prominent** Large Yellow Underwing Black Zigzag Maple Looper Moth **Chocolate Prominent Olive Angle Shades Connected Looper Moth** Unicorn Caterpillar Moth Small Bird Dropping Moth

### Xestia dolosaladela Zale galbanata Zale horrida

### BUTTERFLIES **HESPERIIDAE**

Ervnnis icelus Carterocephalus palaemon Arctic Skipper Ancyloxypha numitor Thymelicus lineola Hesperia sassacus Polites peckius Polites themistocles Polites mystic Poanes hobomok

PAPILIONIDAE Papillio canadensis

PIERIDAE

Pieris rapae

### NYMPHALIDAE

#### Chlosyne nycteis

Chlosyne harrisii Phyciodes tharos Phyciodes cocyta Euphydryas phaeton Polygonia interrogationis Nymphalis milberti Vanessa atalanta

Limenitis arthemis Limenitis archippus Megisto cymela Coenonympha tullia

### TRICHOPTERA **HYDROPSYCHIDAE**

Hydropsychid sp.

LIMNEPHILIDAE Limnephilid sp.

### **MEGALOPTERA**

CORYDALIDAE Chauliodes rastricornis

### Black-lettered Dart Moth Maple Zale Horrid Zale

Skippers

Dreamy Duskywing Least Skipper European Skipper\* Indian Skipper Peck's Skipper Tawny-edged Skipper Long-dash Skipper Hobomok Skipper

**Swallowtails** Canadian Tiger Swallowtail

Whites and Sulphurs Cabbage White\*

### Brush-footed **Butterflies**

Silvery Checkerspot Harris's Checkerspot Pearl Crescent Northern Crescent **Baltimore Checkerspot Question Mark** Milbert's Tortoiseshell Red Admiral (adult + larvae) White Admiral Viceroy Little Wood Satyr Common Ringlet

Caddisflies **Net-spinning** Caddisflies Net-spinning Caddisfly

**Northern Caddisflies** Caddisfly

Dobsonflies, Alderflies, Fishflies **Dobsonflies**, Fishflies Fishfly

### **COLEOPTERA** BUPRESTIDAE Eupristocerus cognitans

CANTHARIDAE

Podabrus brevicollis Podabrus intrusus Podabrus rugosulus Podabrus tricostatus Rhaxonycha carolina

CERAMBYCIDAE

Analeptura lineola Saperda candida

Strangalepta abbreviata

**Beetles Metallic Woodborers Buprestid Beetle** 

### **Soldier Beetles**

Soldier Beetle Soldier Beetle Soldier Beetle Soldier Beetle Soldier Beetle

### Long-horned Beetles

Long-horned Beetle Round-headed Apple Tree Borer Flower Longhorn Trigonarthris minnesotana Flower Longhorn

### CHRYSOMELIDAE

Anisostena nigrita Chrysomela mainensis Galerucella calmariensis Labidomera clivicollis Neochlamisus alni Ophraella conferta Plagiodera versicolora

### COCCINELLIDAE

Anatis labiculata Harmonia axyridis Asian Lady Beetle\* Propylaea quatuordecimpunctataFourteen-spotted Lady Beetle\*

### **CURCULIONIDAE**

Weevil Dirabius rectirostris Phyllobius oblongus Weevil Rhyssomatus lineaticollis Weevil Trypodendron betulae Weevil

ELMIDAE Elmid sp.

**GYRINIDAE** Gyrinus sp.

LAMPYRIDAE Ellychnia corrusca

**MELYRIDAE** Collops sp.

Soft-winged Flower Beetles Soft-winged Flower Beetle

**SCARABAEIDAE** Scarab Beetles Macrodactylus subspinosus Rose Chafer

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Leaf Beetles Leaf Beetle Leaf Beetle Loosestrife Leaf Beetle\*

Milkweed Leaf Beetle Leaf Beetle Leaf Beetle Willow Leaf Beetle

### Lady Beetles

Fifteen-spotted Lady Beetle

Weevils

**Riffle Beetles Riffle Beetle** 

Whirligig Beetles Whirligig Beetle

Fireflies Winter Firefly Phyllophaga anxia Serica georgiana Serica intermixta Trichiotinus assimilis

SILPHIDAE Nicrophorus defodiens

**STAPHYLINIDAE** Lordithon sp.

DIPTERA AGROMYZIDAE Agromyzid spp.

ASILIDAE Laphria spp.

**CHIRONOMIDAE** Chironomid sp.

CULICIDAE Culicid spp.

DOLICHOPODIDAE Condylostylus sp.

**EMPIDIDAE** Empidid sp.

RHAGIONIDAE Chrysopilus sp.

**SCATHOPHAGIDAE** Scathophaga stercoraria

**SCIOMYZIDAE** Tetanocera sp.

**STRATIOMYIDAE** Hedriodiscus dorsalis Odontomyia virgo

### **SYRPHIDAE**

Eristalis dimidiata Eristalis tenax

Eristalis transversa Microdon sp. Temnostoma balyras Toxomerus geminatus

### TABANIDAE

Scarab Beetle Scarab Beetle Scarab Beetle Flower Scarab

**Carrion Beetles** Carrion Beetle

**Rove Beetles Rove Beetle** 

Flies Leaf-mining Flies Leaf Miners

**Robber Flies** Robber Fly

Midges Midge

Mosquitoes Mosquito spp.

Long-legged Flies Long-legged Fly

**Dance Flies** Dance Fly

Snipe Flies Snipe Fly

Scathophagid Flies Yellow Dung Fly

Marsh Flies Marsh Fly

Soldier Flies Soldier Fly Soldier Fly

### Flower Flies, Hover

### Flies Hover Fly

Hover Fly Hover Fly Hover Fly Hover Fly Hover Fly

Horse Flies, Deer Flies

Chrysopus sp. Stonemyia tranquilla Tabanus sp.

**TEPHRITIDAE** Strauzia sp.

LIMONIIDAE **Small-palped Crane Flies** Austrolimnophila toxoneura Dicranomyia (Dicranomyia) immodesta Elephantomyia westwoodi Epiphragma fasciapenne Erioptera (Mesocyphona) caloptera Euphylidorea adusta Gonomyia currani (new to the Ottawa district) Gonomyia (Idiocerodes) kansensis (new to the Ottawa district, probably presents a significant range extension north) Hoplolabis armata Idiocera blanda Illisia graphica (new to the Ottawa district) Limnonia indigena (new to the Ottawa district) Metalimnobia immatura Metalimnobia solitaria Molophilus forcipulus Molophilus sp. Ormosia affinis Pilaria recondita Pseudolimnophila contempta Pseudolimnophila noveboracensis Shannonomyia lenta

### PEDICIIDAE

Tricyphona (Tricyphona) johnsoni

TIPULIDAE

**Long-palped Crane Flies** 

Dolichopeza (Oropeza) subalbipes Nephrotoma euceroides Tipula (Lindnerina) senega Tipula (Pterelachisus) entomophthorae Tipula (Schummelia hermannia Tipula (Vestiplex) longiventris Tipula (Yamatotipula) furca Tipula (Yamatotipula) jacobus (new to the Ottawa

district, probably presents a significant range extension north)

### **MECOPTERA**

### PANORPIDAE

Panorpa sp. Panorpa galerita Panorpa submaculosa

Flies, Scorpion Flies, and Fleas **Common Scorpion Flies** Scorpion Fly Scorpion Fly Scorpion Fly

Deer Flv Horse Fly Horse Fly

Fruit Flies Fruit Fly

### **HYMENOPTERA**

SYMPHYTA TENTHREDINIDAE Tenthredo sp.

GASTERUPTIIDAE

Gasteruptiid sp.

HALICTIDAE

Halictid sp.

VESPIDAE

Ancistrocersus sp.

Sawflies, Wasps, Bees and Ants Sawflies Common Sawflies Sawfly

Gasteruptiids Gasteruptiid Wasp

Sweat Bees Sweat Bee

Yellowjackets, Hornets and their relatives Mason Wasp

**Data**: F. Brodo, B. Gill, D.Lepage, E. Rother, other BioBlitz participants



Gasteruptiid wasp



**Snipe Fly** 



**Rose Chafer** 



**Meadow Plant Bug** 

### Arachnids: Larose Forest BioBlitz June 11/12, 2010

Species in blue are new to the Larose Forest Arachnids List

### ARACHNIDA

**CLUBIONIDAE** *Clubiona* sp.

LYCOSIDAE Lycosid sp.

PHALANGIDAE Leiobunum sp.

PHILODROMIDAE Tibellus oblongus

**PISAURIDAE** *Pisaurina mira* 

SALTICIDAE Eris militaris Pelegrina proterva

TETRAGNATHIDAE Tetragnatha sp.

**THOMISIDAE** *Misumena vatia Xysticus transvertatus* 

Data: C. Hanrahan, D. Lepage

### Spiders, Mites, Harvestmen, Ticks

Sac Spiders Sac Spider

Wolf Spiders Wolf Spider

Harvestmen Harvestman

Philodromid Spiders Oblong Running Crab Spider

Nursery Web Spiders Nursery Web Spider

Jumping Spiders Bronze Jumper Reckless Jumper

Long-jawed Orb Weavers Long-jawed Orb Weaver

Crab Spiders Goldenrod Spider Transverse banded crab spider

### Mammals: Larose Forest BioBlitz June 11/12, 2010

CHIROPTERA

Vespertilionidae Eptesicus fuscus

RODENTIA Cricetidae Ondatra zibethicus Peromyscus maniculatus Deer Mouse

Sciuridae Tamias striatus Tamiasciurus hudsonicus Red Squirrel

Castoridae Castor canadensis

CARNIVORA Canidae Canis latrans Vulpes vulpes

Procyonidae Procyon lotor

Mustelidae Mephitis mephitis

ARTIODACTYLA Cervidae Alces alces Odocoileus virginianus Bats Smooth-faced Bats Big Brown Bat

Rodents New World Mice Muskrat

Squirrels Eastern Chipmunk

Beaver Beaver

Carnivores Dogs Coyote Red Fox

Raccoons Raccoon

Weasels and their Allies Striped Skunk

Cloven-hoofed Mammals Deer Moose White-tailed Deer

Data: Joffre Cote, with additions by other BioBlitz participants

### Table 6

### Fish: Larose Forest BioBlitz June 11/12, 2010

### GASTEROSTEIFORMES GASTEROSTEIDAE

Culea inconstans

### ESOCIFORMES UMBRIDAE Umbra limi

### CYPRINIFORMES CYPRINIDAE

Cyprinus carpio Pimephales promelas Phoxinus eos Phoxinus neogaeus Phoxinus eos × neogaeus Semotilus atromaculatus

### PIPEFISHES AND STICKLEBACKS

Brook Stickleback

### PIKES AND MUDMINNOWS

**Central Mudminnow** 

### MINNOWS AND SUCKERS

Carp Fathead Minnow Northern Redbelly Dace Finescale Dace Northern Redbelly Dace/Finescale Dace Creek Chub

Data: L. Clement, D. Hamline, C. Little, J. Mansell, M. Scheerder, M. Walker

### Table 7

### Vascular Plants: Larose Forest BioBlitz June 11/12, 2010

- Non-native species indicated by an asterisk\*
- Species in blue type are new additions to the Larose Forest Plant List.
- Species in **boldface** are regionally or provincially significant.
  - Regional significance follows Brunton's definition: "plants known from 10 or fewer contemporary
    - populations (post-1969) in the City of Ottawa" (Brunton 2005).
  - Provincial significance follows the NHIC:

#### Provincial status:

- S1 Critically Imperiled in Ontario; usually 5 or fewer occurrences.
- S2 Imperiled in Ontario; usually between 6-20 occurrences.
- S3 Vulnerable in Ontario; 80 or fewer occurrences.

### LYCOPODIACEAE Clubmoss Family

Lyopodium annotinum Stiff Clubmoss Lycopodium clavatum Wolf's Claw Clubmoss Lycopodium complanatum Northern Ground

### Cedar, Regionally Significant

Lycopodium dendroideum Prickly Tree Clubmoss Lycopodium digitatum Southern Ground Cedar Lycopodium lucidulum Shining Clubmoss Lycopodium obscurum Ground Pine

### **EQUISETACEAE Horsetail Family**

Equisetum arvense Field Horsetail Equisetum hyemale Scouring Rush Equisetum pratense Meadow Horsetail Equisetum scirpoides Dwarf Scouring Rush Equisetum sylvaticum Wood Horsetail Equisetum variegatum Variegated Horsetail

### **OPHIOGLOSSACEAE** Grape Fern Family

Botrychium virginianum Rattlesnake Fern

### **OSMUNDACEAE** Flowering Fern Family

Osmunda cinnamomea Cinnamon Fern Osmunda claytoniana Interrupted Fern Osmunda regalis Royal Fern

PTERIDACEAE Maidenhair Fern Family Adiantum pedatum Maidenhair Fern

**DENNSTAEDTIACEAE** Bracken Fern Family Dennstaedtia punctilobula Hay-scented Fern Pteridium aquilinum Bracken

### THELYPTERIDACEAE Marsh Fern Family

Phegopteris connectilis Northern Beech Fern Thelypteris noveboracensis New York Fern Thelypteris palustris Marsh Fern

#### **POLYPODIACEAE** Fern Family

Athyrium filix-femina Lady Fern Dryopteris carthusiana Spinulose Wood Fern Dryopteris cristata Crested Wood Fern Dryopteris intermedia Wood Fern Dryopteris marginalis Marginal Wood Fern Gymnocarpium dryopteris Oak Fern Matteuccia struthiopteris Ostrich Fern Onoclea sensibilis Sensitive Fern Polystichum acrostichoides Christmas Fern

### **TAXACEAE** Yew Family

Taxus canadensis Canada Yew

#### **PINACEAE** Pine Family

Abies balsamea Fir Larix laricina Tamarack Picea glauca White Spruce Picea mariana Black Spruce Pinus resinosa Red Pine Pinus strobus White Pine Pinus sylvestris Scotch Pine Tsuga canadensis Hemlock

### **CUPRESSACEAE** Cypress Family

Thuja occidentalis Eastern White Cedar

### TYPHACEAE Cattail Family Typha latifolia Cattail

#### **POTAMOGETONACEAE** Pond-weed Family

Potamogeton foliosus Leafy Pondweed

ALISMATACEAE Water Plantain Family Alisma triviale Water Plantain

### **BUTOMACEAE Flowering Rush Family**

Butomus umbellatus Flowering Rush\*

### **POACEAE Grass Family**

Agropyron repens Quack Grass\* Bromus inermis Smooth Brome Grass\* Calamagrostis canadensis Canada Bluejoint Cinna latifolia Nodding Woodreed Dactylis glomerata Orchard Grass\* Digitaria ischaemum Smooth Crabgrass\* Festuca arundinacea Tall Fescue\* Festuca rubra Red Fescue\* Glyceria grandis Tall Manna Grass Glyceria septentrionalis Southern Manna Grass, **Regionally Significant** Glyceria striata Fowl Manna Grass Hierochloe odorata Sweet Grass, **Regionally Significant** Leersia oryzoides Rice Cut-grass Leersia virginica White Grass Phalaris arundinacea Reed Canary Grass\* Phleum pratense Timothy\* Poa compressa Canada Bluegrass\* Poa pratensis Kentucky Bluegrass Torreyochloa pallida, var. fernaldii Fernald's Manna Grass, Regionally Significant

#### **CYPERACEAE Sedge Family**

Carex bromoides Brome Hummock Sedge Carex canescens Silvery Sedge Carex chordorrhiza Cord Sedge, Regionally Significant Carex comosa Bristly Sedge Carex crinita Fringed Sedge Carex debilis var. rudgei Weak Sedge, Regionally Significant Carex deweyana Dewey's Sedge

*Carex folliculata* Long sedge, S3, Regionally Significant

Carex gracillima Graceful Sedge Carex gravi Gray's Sedge

Carex gynandra Nodding Sedge, Regionally Significant Carex hystericina Porcupine Sedge

Carex hystericina Porcupine Sed Carex interior Inland Sedge Carex intumescens Shining Bladder Sedge Carex ovales group Sedge Carex paupercula Bog Sedge Carex vulpinoidea Fox Sedge Eleocharis ovata Spike-rush Eleocharis smallii Spike-rush

### JUNCACEAE Rush Family

Juncus effusus Soft Rush

### **ARACEAE** Arum Family

Arisaema triphyllum Jack-in-the-pulpit Calla palustris Water Arum

### LILIACEAE Lily Family

### Clintonia borealis Bluebead Convallaria majalis Lily-of-the-valley\*

Erythronium americanum Dogtooth Violet Hemerocallis fulva Day-lily\* Maianthemum canadense Canada Mayflower Medeola virginiana Indian Cucumber Root Smilacina racemosa False Solomon's Seal Streptopus roseus Rosy Twisted Stalk Trillium erectum Red Trillium Trillium undulatum Painted Trillium

SMILACACEAE Briar Family Smilax herbacea Greenbriar, Carrion Flower

### **IRIDACEAE** Iris Family

Iris versicolor Blue Flag, Wild Iris Sisyrinchium montanum Blue-eyed Grass

### **ORCHIDACEAE** Orchid Family

Corallorhiza trifida Northern Coralroot Cypripedium acaule Pink Lady Slipper Epipactis helleborine Helleborine\*

### SALICACEAE Willow Family

Populus balsamifera Balsam Poplar Populus deltoides Cottonwood Populus grandidentata Large-toothed Aspen Populus tremuloides Trembling Aspen Salix sp. Williow sp. Salix bebbiana Bebb's Willow Salix fragilis Crack Willow\* Salix interior Sandbar Willow Salix lucida Shining Willow Salix nigra Black Willow Salix petiolaris Slender Willow

### JUGLANDACEAE Hickory Family

Carya cordiformis Bitternut Hickory

**BETULACEAE Birch Family** 

Alnus rugosa Speckled Alder Betula alleghaniensis Yellow Birch Betula papyrifera White Birch Betula populifolia Gray Birch

Betula pumila Dwarf Birch? Regionally Significant Carpinus caroliniana Blue-beech Corylus cornuta Beaked Hazel Ostrya virginiana Ironwood

### **FAGACEAE Beech Family**

Fagus grandifolia Beech Quercus macrocarpa Bur Oak

### 

Ulmus americana American Elm

CANNABACEAE Hemp Family Humulus lupulus Hops

### URTICACEAE Nettle Family

Laportea canadensis Wood Nettle Pilea pumila Clearweed Urtica dioica Stinging Nettle

ARISTOLOCHIACEAE Ginger Family

Asarum Canadense Wild Ginger

### POLYGONACEAE Buckwheat Family

Polygonum convolvulus Black Bindweed\* Rumex crispus Curled Dock\* Rumex obtusifolius Broad-leaved Dock\* Rumex orbiculatus Great Water Dock Rumex verticillatus Water Dock

### CARYOPHYLLACEAE Pink Family

Cerastium fontanum Mouse-ear Chickweed\* Silene vulgaris Bladder Campion\* Stellaria graminea Lesser Stitchwort\*

### **RANUNCULACEAE Buttercup Family**

Actaea pachypoda Doll's Eye Actaea rubra Red Baneberry Anemone canadensis Canada Anemone Clematis virginiana Old Man's Beard Coptis trifolia Goldthread Ranunculus abortivus Woodland Buttercup Ranunculus acris Buttercup\* Ranunculus sceleratus Celery-leaved Crowfoot Ranunculus septentrionalis Swamp Buttercup,

### Regionally Significant

Thalictrum dioicum Early Meadow Rue Thalictrum pubescens Tall Meadow Rue

**BERBERIDACEAE** Barberry Family *Caulophyllum thalictroides* Blue Cohosh

BRASSICACEAE Mustard Family Cardamine pensylvanica Pennsylvania Bittercress\* Sisymbrium officinale Hedge Mustard\*

### **DROSERACEAE Sundew Family**

Drosera rotundifolia Round-leaved Sundew

CRASSULACEAE Stonecrop Family Sedum telephium Live-forever, Orpine\*

### SAXIFRAGACEAE Saxifrage Family

*Ribes cynosbati* Wild Gooseberry *Ribes glandulosum* Skunk Currant *Tiarella cordifolia* Foamflower

### **ROSACEAE** Rose Family

Agrimonia gryposepala Agrimony Amelanchier sp. Serviceberry sp. Amelanchier arborea Downy Serviceberry Aronia melanocarpa Black Chokeberry Fragaria virginiana Wild Strawberry Geum aleppicum Yellow Avens Geum canadense White Avens Prunus pensylvanica Pin Cherry Prunus serotina Black Cherry Prunus virginiana Choke Cherry Rosa sp. Rose\* Rubus allegheniensis Blackberry Rubus flagellaris Northern Dewberry Rubus hispidus Swamp Dewberry Rubus idaeus Red Raspberry Rubus odoratus Red-flowering Raspberry Rubus pubescens Dewberry Sorbus sp. Mountain Ash Spiraea alba Meadowsweet Waldsteinia fragarioides Barren-strawberry

### **FABACEAE Bean Family**

Amphicarpaea bracteata Hog-peanut Apios americana Groundnut Lotus corniculatus Bird's Foot Trefoil\* Medicago lupulina Black Medic\* Medicago sativa Alfalfa\* Melilotus alba White Sweet Clover\* Trifolium pratense Red Clover\* *Trifolium repens* White Clover\* *Vicia cracca* Purple Vetch\*

OXALIDACEAE Wood-sorrel Family Oxalis stricta Yellow Wood Sorrel

EUPHORBIACEAE Spurge Family Euphorbia maculata Milk Purslane

ANACARDIACEAE Cashew Family Rhus radicans Poison Ivy Rhus typhina Staghorn sumac

AQUIFOLIACEAE Holly Family Ilex verticillata Winterberry Nemopanthus mucronatus Mountain Holly, Regionally Significant

#### ACERACEAE Maple Family

Acer ×freemanii Freeman's Maple (A. rubrum × A. saccharinum) Acer negundo Manitoba Maple\* Acer pensylvanicum Striped maple Acer rubrum Red Maple Acer saccharum Sugar Maple Acer spicatum Mountain Maple

BALSAMINACEAE Touch-me-not Family Impatiens capensis Jewelweed

#### **RHAMNACEAE Buckthorn Family**

Rhamnus alnifolia Alder-leaved Buckthorn Rhamnus cathartica Common Buckthorn\* Rhamnus frangula Glossy Buckthorn\*

VITACEAE Grape Family

Parthenocissus inserta Virginia Creeper Vitis riparia Wild Grape

TILIACEAE Linden Family Tilia americana Basswood

VIOLACEAE Violet Family Viola sp. Violet sp. Viola pubescens Downy Yellow Violet

LYTHRACEAE Loosestrife Family Lythrum salicaria Purple Loosestrife\*

ONAGRACEAE Evening Primrose Family Circaea lutetiana Enchanter's Nightshade Ludwigia palustris Water Purslane Oenothera biennis Evening Primrose

ARALIACEAE Ginseng Family Aralia nudicaulis Sarsaparilla Aralia racemosa Spikenard

#### **APIACEAE Carrot Family**

*Cicuta maculata* Spotted Water-hemlock *Osmorhiza claytonii* Sweet Cicely *Pastinaca sativa* Wild Parsnip\* *Sanicula marilandica* Black Snakeroot

### **CORNACEAE** Dogwood Family

Cornus alternifolia Alternate-leaved dogwood Cornus canadensis Bunchberry Cornus rugosa Round-leaved Dogwood Cornus stolonifera Red Osier Dogwood

PYROLACEAE Pyrola Family Pyrola elliptica Shinleaf

ERICACEAE Heath Family Gaultheria procumbens Wintergreen Gaylussacia baccata, Huckleberry Kalmia angustifolia Sheep Laurel Ledum groenlandicum Labrador Tea Vaccinium angustifolium Low-bush Blueberry

Vaccinium myrtilloides Velvet-leaf Blueberry

### **PRIMULACEAE** Primrose Family

Lysimachia ciliata Fringed Loosestrife Lysimachia nummularia Creeping Charlie\* Trientalis borealis Starflower

### **OLEACEAE** Olive Family

Fraxinus nigra Black Ash Fraxinus pennsylvanica Red Ash, Green Ash

APOCYNACEAE Dogbane Family Apocynum androsaemifolium Flowering Dogbane Apocynum cannabinum Indian Hemp

#### ASCLEPIADACEAE Milkweed Family

Asclepias incarnata Swamp Milkweed Asclepias syriaca Milkweed

### **CONVOLVULACEAE Morning Glory Family** *Convolvulus arvensis* Field Bindweed\*

BORAGINACEAE Borage Family Myosotis sp. Forget-Me-Not\*

### LAMIACEAE Mint Family

Galeopsis tetrahit Hemp Nettle\* Glechoma hederacea Gill-over-the-ground\* Lamium sp. Dead Nettle\* Lycopus americanus Water Horehound Prunella vulgaris Heal-all\*

SOLANACEAE Nightshade Family Solanum dulcamara Deadly Nightshade\*

SCROPHULARIACEAE Figwort Family Scrophularia lanceolata Figwort, Regionally Significant

PLANTAGINACEAE Plantain Family Plantago major Common Plantain\*

### **RUBIACEAE Bedstraw Family**

Galium sp. Galium Galium asprellum Rough Bedstraw Galium palustre Marsh Bedstraw Mitchella repens Partridgeberry

### **CAPRIFOLIACEAE** Honeysuckle Family

Diervilla Ionicera Bush Honeysuckle Lonicera canadensis Canada Honeysuckle Lonicera villosa Northern Fly Honeysuckle, Regionally Significant

Sambucus canadensis Canada Elderberry Sambucus racemosa Red Elderberry Symphoricarpos albus Snowberry Viburnum alnifolium Hobblebush Viburnum cassinoides Wild Raisin, Witherod Viburnum lentago Nannyberry

#### **CUCURBITACEAE** Gourd Family

Echinocystis lobata Wild Cucumber

### **ASTERACEAE** Composite Family

Achillea millefolium Yarrow Ambrosia artemisiifolia Ragweed Ambrosia trifida Giant Ragweed Arctium minus Burdock\* Artemisia vulgaris Mugwort\* Aster acuminatus Whorled Wood Aster Aster borealis Rush Aster, Regionally Significant

Aster ciliolatus Ciliolate Aster Aster cordifolius Heart-leaved Aster Aster lanceolatus Panicled Aster Aster lateriflorus Calico Aster Aster macrophyllus Large-leaved Aster Aster novae-angliae New England Aster Aster puniceus Purple-stemmed Aster Aster umbellatus Flat-topped Aster Cirsium arvense Canada Thistle\* Cirsium vulgare Bull Thistle\* Erigeron annuus Daisy Fleabane Erigeron philadelphicus Daisy Fleabane Eupatorium maculatum Joe-Pye-Weed Eupatorium rugosum White Snakeroot Helianthus sp. Sunflower sp. Hieracium aurantiacum Orange Hawkweed\* Hieracium caespitosum Field Hawkweed\* Lactuca biennis Tall Blue Lettuce Leucanthemum vulgare Ox-eye Daisy\* Prenanthes altissima Tall White Lettuce Rudbeckia hirta Brown-eyed Susan Solidago altissima Tall Goldenrod Solidago canadensis Canada Goldenrod Solidago flexicaulis Zig-zag Goldenrod Solidago rugosa Rough Goldenrod Sonchus arvenis Sow-thistle\* Tanacetum vulgare Common Tansy\* Taraxacum officinale Dandelion\* Tragopogon pratensis Yellow Goat's-beard\* Tussilago farfara Coltsfoot\*

**Data:** S. Darbyshire, C. Hanrahan, S. Hunter, L. Ovenden, J. Page, M. Petryk, J.&A. Reddoch, B. Rioux, J. Saarela



**Ox-eye Daisy** 

### Table 8

### Mosses and Liverworts: Larose Forest BioBlitz June 11/12, 2010

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Species in blue are new for the Larose list Provincial ranking and definition follows the NHIC: **S3** - Vulnerable in Ontario; 80 or fewer occurrences.

### DIVISION HEPATICAE LIVERWORTS

ANEURACEAE Riccardia latifrons

CALYPOGEIACEAE Calypogeia muelleriana

**CEPHALOZIACEAE** Nowellia curvifolia

GEOCALYCACEAE Chiloscyphus profundus Geocalyx graveolens

JUBULACEAE Frullania eboracensis

JUNGERMANNIACEAE Jamesoniella autumnalis

PELLIACEAE Pellia neesiana S3?

PTILIDIACEAE Ptilidium pulcherrimum

RADULACEAE Radula complanata

DIVISION MUSCI MOSSES

### AMBLYSTEGIACEAE

Amblystegium riparium Drepanocladus aduncus Warnstorfia fluitans AULACOMNIACEAE Aulacomnium palustre

BRACHYTHECIACEAE Brachythecium rutabulum

Brachythecium salebrosum Bryhnia novae-angliae Eurhynchium pulchellum

BRYACEAE Pohlia nutans

CLIMACEAE Climacium dendroides

DICRANACEAE Dicranum flagellare Dicranum montanum Dicranum polysetum Dicranum scoparium Broom Moss Dicranum undulatum

ENTODONTACEAE Entodon seductrix

FISSIDENTACEAE Fissidens adianthoides

HYLOCOMIACEAE Pleurozium schreberi Rhytidiadelphus triquetrus Shaggy Moss

HYPNANCEAE Callicladium haldanianum Herzogiella turfacea Hypnum lindbergii Hypnum pallescens Platygyrium repens Pylaisiella polyantha Pylaisiella selwynii LESKEACEAE Leskea polycarpa

LEUCOBRYACEAE Leucobryum glaucum

MNIACEAE Plagiomnium cuspidatum

ORTHOTRICHACEAE Orthotrichum ohioense S3 Ulota crispa Ulota coarctata? (capsules immature) S3

### PLAGIOTHECIACEAE

Plagiothecium cavifolium Plagiothecium denticulatum Plagiothecium laetum

### POLYTRICHACEAE

Atrichum altecristatum Polytrichum commune Common Haircap Moss

**SEMATOPHYLLACEAE** *Pylaisiadelpha tenuirostris* 

SPHAGNACEAE Sphagnum girgensohnii Sphagnum russowii

TETRAPHIDACEAE

Tetraphis pellucida

### THUIDIACEAE

Abietinella abietina Thuidium delicatulum Thuidium recognitum

Data: Linda Ley

### Table 9

### Mushrooms and Fungi: Larose Forest BioBlitz June 11/12, 2010

Common names taken from Barron, George. 1999. Mushrooms of Ontario and Eastern Canada. Lone Pine and from participants in the BioBlitz.

Species in blue type are new additions to the Larose Forest Fungi inventory

#### Polyporaceae BASIDIOMYCETES Fomes fomentarius Agaricales Lenzites betulina **Birch Lenzites** Agaricaceae Polyporus alveolaris Amanita praecox Polyporus badius Amanita rhacopus Polyporus squamosus Dryad's Saddle Bolbitiaceae Trametes hirsutum Trametes versicolor Hebeloma mesophaeum Dark-centred **Turkey Tail** Hebeloma Trichaptum biforme Purple-Toothed Entolomataceae Polypore Nolanea strictior var. isabellina White Cheese Tyromyces chioneus Marasmiacae Polypore Marasmius rotula Horsehair **Russulales** Mushroom Stereaceae Marasmius scorodonius Stereum hirsutum Schizophyllaceae False Turkey Tail Stereum subtomentosum Schizophyllum commune Split Gill **Tricholomataceae** Tremellales Clitocybe squamulosa Scaly Clitocybe Gymnopus subsulphureus Exidiaceae Hygrocybe miniata Vermilion Waxcap Tremella lutescens Witch's Butter Megacollybia platyphylla Broad Gill Melanoleuca alboflavida Yellow-white ASCOMYCÈTES Melanoleuca Dothideales Mycena capilaripes Pleosporales Mycena sanguinolenta Dibotryon morbosum Black Knot Fungi **Hymenochaetales** Helotiales Hymenochaetaceae Cudoniaceae Phellinus ignarius Chlorociboria aeruginescens **Blue-Stain Fungus** Phellinus tremulae Hyaloscyphaceae Belonidium sulphureum **Phallales** Lachnum virgineum Fomitopsidaceae Red-banded Fomitopsis pinicola **Xylariales** polypore **Xylariaceae Birch Polypore** Piptoporus betulinus Daldinia concentrica Carbon Ball Ganodermataceae **MYXOMYCÈTES** Ganoderma applanatum Artist's Conk Liceales Reticulariaceae

Dictydiaethalium plumbeum Lycogala epidendron

Wolf's Milk Slime

### Protosteliales

**Ceratiomyxaceae** Ceratiomyxa fruticosa (fruticulosa?)

### Physarales

### Physaraceae

Fuligo septica

Scrambled Egg Slime

**Data:** Christiane and Michel Corbeil, Yolande Dalpé, Renée Lebeuf, Otto Loesel, André Paul



Blue-stain Fungus



Scrambled Egg Slime



Turkey Tails

### Table 10

### Miscellaneous Observations: Larose Forest BioBlitz

## July 11/12 2010

### NON-INSECT ARTHROPODS

ISOPODA	Pill Bugs, Sow Bugs
ASSELIDAE	
Asselid sp.	
DECAPODA	Crabs, Crayfishes, Lobsters, Prawns, and Shrimp
CAMBARIDAE	Crayfish
Cambarid sp.	Crayfish sp.
PELECYPODA	Clams and Mussels
SPHAERIIDAE	Fingernail Clams and Pea Clams
Pisidium sp.	Pea Clam

Data: L. Clement, D. Hamline