

Otty Lake BioBlitz July 17/18, 2012



Otty Lake BioBlitz 2012- Karen Hunt, Chair, Otty Lake Association's Lake Plan Action Committee

Simon Lunn photo



A very successful second Otty Lake BioBlitz took place on July 17 and 18th, 2012. The 24-hour event was held at the Whispering Pines Scout Camp on the south-west shore of Otty Lake. The BioBlitz provided an opportunity for experts to explore the diverse BioBlitz area on their own to gather species information to add to the existing database of information about the Otty Lake watershed. It also provided opportunities for members of

the local community to come together with experts and knowledgeable local amateurs to learn more about the flora and fauna of the Otty Lake watershed through a series of planned guided hikes and activities. This area of the lake is very diverse and quite different from the area surveyed in the 2010 BioBlitz. As well, this BioBlitz was held mid-summer as opposed to the 2010 spring BioBlitz. The resulting list of flora and fauna species will be a valuable addition to the existing species list for Otty Lake and its watershed area. It was a very positive community undertaking.

Karen Hunt photo



The event focused around a number of expert-guided hikes and activities throughout the area with themes such as "Looking for Dragonflies and Butterflies", "What Grows Here?" "Nature's Symphony – Sounds and Creatures of the Night", "Identifying the Fish Who Make Otty Lake their Home" and others. Approximately 110 volunteers, experts, lake residents and

enthusiasts came out to participate for varying amounts of time over the 24 hour BioBlitz.

For this BioBlitz we were very pleased to be able to offer a special children's program "Are you a Nature Detective?" under the guidance of Foley Mountain Conservation Area's Rebecca Whitman which encouraged more involvement by local families.



Don Beattie photo

Another unique feature of the 2012 BioBlitz was the opportunity for small groups of participants to work with well-known local Field Naturalist and Nature Photographer Simon Lunn as he shared special tips on taking photographs of sightings in the natural world.



The 2012 Otty Lake BioBlitz was commemorated in a painting **Drought Ferns** by artist and naturalist Aleta Karstad.

Don Beattie photo

Partnerships

The event was a wonderful example of the beneficial nature of partnerships as each partner group contributed in a unique and valuable way ensuring that the 2012 Otty Lake BioBlitz was an amazing event.

The following groups worked with the Otty Lake Association to carry out the BioBlitz:



Canadian Wildlife Federation Centre for Sustainable Watersheds Community Stewardship Council of Lanark County Ontario Ministry of Natural Resources Lanark County Camera Club (Paul Sturmey) Rideau Valley Conservation Authority Scouts Canada

Don Beattie photo

The 2012 Stewardship Rangers under the guidance of their supervisor, Emily Verhoek, cleared trails at the BioBlitz site in preparation for the BioBlitz activities.

Two students from France on a summer placement at RVCA came to participate in the BioBlitz with Mike Yee (including an overnight camping experience) and their involvement was much valued as well.

A very special thanks to Scouts Canada Valley Highlands Area for generously allowing the use of their special and unique property for the event and for making their large shelter available for our basecamp.

Thank you too to the Rideau Valley Conservation Authority for permitting access to the Mica Mines Conservation Area as an extension of the BioBlitz territory.

The assistance of Karen Ballentine, Susan Sentesy and Jeff Ward from the Community Stewardship Council of Lanark County in the organization for the BioBlitz was wonderful and very important. Whatever was needed, they were there to support and assist. Many, many thanks.

Volunteers

The event would not have been such a success without the contributions of the amazing Otty Lake BioBlitz planning team who looked after everything including setting up and



taking down, manning the registration table, gathering resources, providing food and refreshments and entering the collected data into the specially designed database.

Gail Read and Lynne Stockless and their helpers organized wonderful food and ensured that lots of fluids kept everyone hydrated, Diana Nuttall and her team ably looked after the registration table and David Reesor, Rick Stojak and Murray and Karen Hunt were responsible for entering the data into the database.

Diana and Roger Nuttall provided the linkage with Scouts Canada and the overnight supervision of the campsite permitting a number of the participants to enjoy a special overnight camping experience at beautiful Whispering Pines Camp.

Hike and Activity Leaders

Special thanks are given to the leaders of the guided hikes and activities:

Mike Yee Susan Samila Edith Lepine Rosemarie Hoppe-Wilhelm Sam Kingdon Emily Verhoek Jeff Ward Simon Lunn Jim Ronson Diane Lepage Joel Byrne James Pagé Cathy Kari Roger Nuttall Derek Smith Fred Lepine Adrienne Lewis Sarah MacLeod Rebecca Whitman Leila Stafford Jeff Skevington Fred Schueler

In addition, experts such as Eleanor Thomson and David White generously contributed their time and expertise to our BioBlitz

Time	Activity
12 -1 p.m	Basecamp and registration opens
	Looking for Dragonflies - Jim Ronson, Field
	Naturalist
	and Butterflies – Diane Lepage, Habitat Manager for
	the butterfly meadow at Fletcher Wildlife Garden
1 – 2 p.m.	Black - Legged Ticks update
	What is a BioBlitz? Why is it important? Orientation
	Talk and Walk - led by Mike Yee, Rideau Valley
	Conservation Authority (RVCA)
2 – 5 p.m.	Cont'd Looking for Dragonflies – Jim Ronson

Schedule - Otty Lake BioBlitz – Tuesday, July 17, 2012.

Note: These activities will take place simultaneously.	And Butterflies –Diane Lepage Insects all around us – Jeff Skevington, Research Scientist, Carleton Univ. and Agriculture & Agri-Food Canada, and Joel Byrne, Mississippi Valley Field Naturalists
Please feel free to join the group(s) of your choice.	 Nature Photography – Simon Lunn, Field Naturalist, Nature Photographer Seeking Reptiles & small mammals – Dr. Fred Schueler, Bishops Mills Nature Centre Plants: 1) What grows here? – James Pagé, Canadian Wildlife Federation and Edith Lepine, Field Naturalist 2) Mosses & Lichens – Susan Samila, Field Naturalist 3) Edible plants - (small local group activity - not a hike) -Roger Nuttall, Field Naturalist
5 – 6 p.m.	Supper break – participants are asked to bring a brown bag supper but snacks, coffee, tea, juice will be available Inventory on your own
6 – 7:30 p.m.	Birding – Rosemarie Hoppe-Wilhelm, Field Naturalist, and others
7:30 – 9:30 p.m.	Sounds and Creatures of the Night - Simon Lunn and Joel Byrne
9:30 p.m.	Basecamp closes for the night Overnight campers – What did you hear and see? Those camping overnight should bring their own breakfast but coffee and muffins will be available

Schedule - Otty Lake BioBlitz –Wednesday, July 18, 2012

Time	Activity
7 a.m.	Basecamp opens
7 – 8:30 a.m.	<i>Early morning birding</i> – Sam Kingdon, Rosemarie Hoppe-Wilhelm, Cathy Kari, Field Naturalists
8:30-10 a.m.	What kinds of trees grow here? – Walk with Jeff Ward, Stewardship Coordinator, Community Stewardship Council of Lanark County and Fred Lepine, Field Naturalist
8:30-10a.m.	Reptile and Amphibians – Keeping an eye out for species at risk – James Pagé, Canadian Wildlife Federation and Emily Verhoek, Community Stewardship Council of Lanark County Looking for Otty Lake molluscs – Dr. Fred Schueler, Bishop's Mills Nature Centre
10 – 11:30 a.m.	Are you a nature detective? Children's program – Ages 4 – 12. Parent accompaniment required. Rebecca Whitman and Leila Stafford, RVCA, Foley Mountain Conservation Area
10 – 12 noon	Benthic monitoring - Counting and classifying the aquatic bugs and shellfish to help understand lake water quality - Adrienne Lewis, RVCA

	Identifying the fish who make Otty their home- Adrienne Lewis, RVCA Monitoring the health of the Lake - Sarah MacLeod, RVCA Nature photography – Simon Lunn (if 2nd time frame is needed) Rock Talk – Derek Smith and Fred Lepine (Otty Lake geologists) – what rocks are in our watershed – a visit to a Mica trench
12 – 1 p.m.	Have we missed anything?
1 p.m.	Closing
	Species tally
	Celebration BBQ
2 p.m.	Tear down

Some of the comments received from BioBlitz participants ...

- I wanted to also say how impressed I was with the support you garnered from the many talented activity leaders and from the various organizations & agencies
- It was both fun and a privilege to meet so many enthusiastic and interesting people & to see the sharing of time, energy, commitment and expertise both from both within and outside the local community.
- The quality of the presenters was also very impressive. It was so stimulating to be around such interesting and accomplished people. It is the educational aspect of this event that I really enjoyed. I just danced back to the cottage each day with my new knowledge
- I just am so impressed with how many experts you attracted, and what warmth and passion for nature and for community the whole event stimulated in everyone present.
- The scientists that you organized and brought together to be there with us were fabulous. So informative.
- I really enjoyed the camaraderie and feeling of community. Everything was so well organized.
- What a wonderful two days spent with nature lovers in our own Otty Lake area.
- The event gave me the first sighting of:- a giant swallowtail butterfly, a mink frog, a spring peeper, a wood frog and a stinkpot turtle; Marsh St. John's Wort (in our area), yew and boneset
- You sure had a powerhouse of experts. Congratulations

Location



The BioBlitz took place in the southwest corner of Otty Lake in Tay Valley Township south of Perth, on the site of the Scout Canada's Camp Whispering Pines and in the adjacent Mica Mines Conservation Area. This approximately 150 acres offered a unique range of habitat including aquatic habitat on Otty Lake, open field, wetland, lowland and upland forest.

Basecamp



The BioBlitz basecamp was set up in an open area on the Scout Canada's Camp Whispering Pines. Covered by a large tent on loan from Scouts Canada, the basecamp housed the registration table, refreshments table, database entry table, and a variety of resources including field guides, displays, and interactive learning activities. The daily schedule, a large aerial map of the properties, and a final tally count were also on display.

This tent was a welcome shelter from the intense heat of one of the hottest days of the summer (and also from a dramatic thunderstorm on the first afternoon)



Simon Lunn photos

Data Collection



Species observations were recorded by the experts and other knowledgeable participants throughout the 24 hour event. Species checklists for eastern Ontario were provided along with additional tally sheets for species not found on the checklists. The experts turned in their lists to the tally masters back at the basecamp, David Reesor, Rick Stojak and Murray Hunt. The information was then entered into the access database originally designed by David Crossman of the Kemptville MNR specifically for BioBlitz events. As a follow-up to the BioBlitz, Karen and Murray Hunt spent many additional hours tracking down further information about species identified on the BioBlitz checklists and tally sheets so that this information too could be added to the final tally. There were a number of species not in the BioBlitz database or on the BioBlitz checklist and this information will be forwarded to the Canadian Wildlife Federation for expansion of the documents.

Species Count

Note: The species count for the 2012 Otty Lake BioBlitz was compiled from the observations submitted by BioBlitz observers.

The species listed under the various headings in this report are sorted by Common Name.

To view a list sorted by Scientific Name, please see the document *Final Otty Lake 2012 BioBlitz Data – Scientific Names.*

FAUNA

Reptiles & Amphibians



Simon Lunn photo

Emily Verhoek, Community Stewardship Council of Lanark County and James Pagé, Canadian Wildlife Federation, led a group of Bioblitz participants on a search for reptiles and amphibians keeping an eye out for species at risk. An Eastern Musk Turtle (Stinkpot Turtle) was a great sighting.

Reptile and Amphibian Count: 14

Amphibians	American Bullfrog	Rana catesbeiana
	Blue-spotted Salamander	Ambystoma laterale
	Eastern Red-backed Salamander	Plethodon cinereus
	Gray Treefrog	Hyla versicolor

Green Frog		
Mink Frog		
Red-spotted Newt		
Spring Peeper		
Wood Frog		

Rana clamitans Rana septentrionalis Notophthalmus viridescens Pseudacris crucifer Rana sylvatica

Common Watersnake	Nerodia sipedon sipedon
Eastern Gartersnake	Thamnophis sirtalis sirtalis
Eastern Musk Turtle	Sternotherus odoratus
Eastern Ribbonsnake	Thamnophis sauritus
Midland Painted Turtle	Chrysemys picta marginata
	Eastern Gartersnake Eastern Musk Turtle Eastern Ribbonsnake



Paul Sturmey photo



Simon Lunn photo

Paul Sturmey photo





Invasive Species

Specimens of invasive species found in the local area were displayed by the RVCA. They were of considerable interest to young and old BioBlitz participants

Don Beattie photo

Mammals

Although BioBlitz 2012 did not have hikes directed specifically towards locating mammals, activity leaders and participants kept note of mammal sightings as they explored the BioBlitz area.

Mammal Count: 7

American Black Bear

Eastern Chipmunk North American River Otter Northern Raccoon Red Squirrel Southern Flying Squirrel White-tailed Deer Ursus americanus

Tamias striatus Lontra canadensis Procyon lotor Tamiasciurus hudsonicus Glaucomys volans Odocoileus virginianus

Birds

Sam Kingdon, Rosemarie Hoppe-Wilhelm, Cathy Kari and other keen field naturalists rose early on the Wednesday morning to comb fields and forest for sightings of the birds whose habitat is the local area. As well, Simon Lunn and other leaders and participants in the other hikes kept an eye out for bird sightings during their activities. While the intense heat of early July 2012 reduced the number of visible daytime birds, Camp Whispering Pines resident Whip-poor-wills certainly made their presence known during

the Nature's Symphony – Sounds and Creatures of the Night Hike led by Simon Lunn and Joel Byrne



Karen Hunt photo

Bird Count: 49

American Woodcock **Barn Swallow** Barred Owl Black-and-white Warbler Black-capped Chickadee Blue Jay **Brown Creeper** Canada Goose Cedar Waxwing Chestnut-sided Warbler Common Grackle Common Loon **Common Nighthawk Common Yellowthroat** Downy Woodpecker Eastern Kingbird Eastern Phoebe **Eastern Towhee** Eastern Wood-pewee Gray Catbird **Great Blue Heron Great Crested Flycatcher** Hairy Woodpecker Hermit Thrush **Hooded Merganser** Mallard Mourning Dove Northern Flicker Osprey Ovenbird **Pine Warbler Red-breasted Nuthatch Red-eyed Vireo Red-shouldered Hawk Red-winged Blackbird Ring-billed Gull Rose-breasted Grosbeak Ruffed Grouse** Scarlet Tanager Song Sparrow

Scolopax minor Hirundo rustica Strix varia Mniotilta varia Poecile atricapillus Cyanocitta cristata Certhia americana Branta canadensis Bombycilla cedrorum Dendroica pensylvanica Quiscalus quiscula Gavia immer Chordeiles minor Geothlypis trichas **Picoides** pubescens Tyrannus tyrannus Sayornis phoebe Pipilo erythrophthalmus **Contopus virens** Dumetella carolinensis Ardea herodias Myiarchus crinitus **Picoides villosus** Catharus guttatus Lophodytes cucullatus Anas platyrhynchos Zenaida macroura **Colaptes auratus** Pandion haliaetus Seiurus aurocapilla Dendroica pinus Sitta canadensis Vireo olivaceus **Buteo lineatus** Agelaius phoeniceus Larus delawarensis Pheucticus Iudovicianus Bonasa umbellus Piranga olivacea Melospiza melodia

Swamp Sparrow Turkey Vulture Veery Whip-poor-will White-breasted Nuthatch White-throated Sparrow Yellow Warbler Yellow-bellied Sapsucker Yellow-rumped Warbler Melospiza georgiana Cathartes aura Catharus fuscescens Caprimulgus vociferus Sitta carolinensis Zonotrichia albicollis Dendroica petechia Sphyrapicus varius Dendroica coronata

Fish



Under the supervision of Adrienne Lewis, RVCA, nets were cast and samples collected to try and identify some of the fish who make Otty their home.



Paul Sturmey photos

Fish Count: 6

Banded Killifish Bluegill Bluntnose Minnow Largemouth Bass Pumpkinseed Rock Bass Fundulus diaphanus Lepomis macrochirus Pimephales notatus Micropterus salmoides Lepomis gibbosus Ambloplites rupestris

Invertebrates



Diane Lepage and Jim Ronson guided BioBlitz participants in their search for Butterflies, Dragonflies and Damselflies. Although these creatures were not plentiful due to the intensely hot July weather, a special highlight was the identification of a rare Spotted Darner Dragonfly.

Simon Lunn photos





Dr. Jeff Skevington and Joel Byrne's expertise guided their hike participants to see a variety of insects.



Simon Lunn photo



Paul Sturmey photo



Paul Sturmey photo



Adrienne Lewis, Sarah MacLeod and their team from the Rideau Valley Conservation Authority were on hand to demonstrate how benthic monitoring/counting and classifying the aquatic bugs and shellfish collected near the shore can help us to understand lake water quality. Participants were encouraged to sort through the muddy catch for specimens. Dr. Fred Schueler searched the shore on both sides of the Scout Camp beach looking for mollusks and aquatic plants.



Invertebrate Count: 113

Ants, Bees, Wasps and Sawflies	A Sawfly	Tenthredo basilaris
	Ant sp.	Formicidae sp.
	Bumble Bee sp.	Bombus sp.
	Carpenter Ant sp.	Camponotus sp.
	Ichneumon Wasp	Ophion sp.
	Parasitoid Wasp sp.	Braconidae or Ichneumonidae sp.
	True Hornet sp.	Vespa sp.
	Yellow Jacket sp.	Vespula sp./ Dolichovespula sp.
Beetles	Beetle sp.	Coleoptera sp.
	Ground Beetle sp.	Carabidae sp.
	Ladybird Beetle sp. (AKA Ladybug)	Coccinellidae sp.
	Long-horned Beetle sp.	Cerambycidae sp.
	Multicoloured Asian Ladybird Beetle	Harmonia axyridis
	Predacious Diving Beetle sp.	Dytiscidae sp.
	Red Milkweed Beetle	Tetraopes tetrophthalmus
	Tiger Beetle sp.	Cicindelidae
	Whirligig Beetle sp.	Gyrinidae sp.
Beetles sp.	Firefly sp.	Lampyridae sp.
Butterflies and Skippers	Black Swallowtail	Papilio polyxenes
	Common Wood-Nymph	Cercyonis pegala
	Dun Skipper	Euphyes vestris
	Eastern Tiger Swallowtail	Papilio glaucus
	Eyed Brown	Satyrodes eurydice
	Giant Swallowtail	Papilio cresphontes
	Great Spangled Fritillary	Speyeria cybele
	Monarch	Danaus plexippus
	Mourning Cloak	Nymphalis antiopa

	Northern Crescent Northern Pearly-Eye Peck's Skipper Question Mark Silver-spotted Skipper Viceroy White Admiral	Phyciodes cocyta Enodia anthedon Polites peckius Polygonia interrogationis Epargyreus clarus Limenitis archippus Limenitis arthemis
Crickets, Katydids and Grasshoppers	Field Cricket sp. Camel Cricket Long-horned Grasshopper sp. (AKA Katydid or Bush-Cricket) Short-horned Grasshopper sp.	Gryllus sp. Ceuthopilus sp. Tettigoniidae sp. Caelifera sp.
Dragonflies and Damselflies	Blue Dasher Calico Pennant Chalk-fronted Corporal Common Green Darner Common Whitetail Damselfly Larvae sp. Dragonfly Larvae sp. Eastern Forktail Eastern Pondhawk Halloween Pennant Mottled Darner Orange Bluet Skimming Bluet Slaty Skimmer Vesper Bluet Violet Dancer White-faced Meadowhawk Widow Skimmer Yellow-legged Meadowhawk	Pachydiplax longipennis Celithemis elisa Ladona julia Anax junius Plathemis lydia Zygoptera sp. Anisoptera sp. Ischnura verticalis Erythemis simplicicollis Celithemis eponina Aeshna clepsydra Enallagma signatum Enallagma geminatum Libellula incesta Enallagma vesperum Argia fumipennis violacea Sympetrum obtrusum Libellula luctuosa
Flies	Cranefly sp. Deer Fly Flower Fly -Syrphidae Frit Fly	Tipulidae sp. Chrysopus sp. Toxomerus marginatus Chloropidae

	Fruit Fly sp. Horse Fly Hover Fly Hover Fly sp. Midge sp. Mosquito sp. Robber Fly sp. Soldier Fly Tachinid Fly	Tephritidae sp. Stonemyia tranquilla Toxomerus geminatus Syrphidae sp. Chrionomidae Culicidae sp. Asilidae sp. Ptecticus sp. Family Stratiomyidae Cylindromyia sp.
Mayflies	Mayfly sp.	Ephemeroptera sp.
Moths	Arched Hooktip Definite Tussock Moth Io Moth Luna Moth Moth sp.	Drepana arcuata Orgyia definita Automeris io Actias luna Lepidoptera sp.
Other	Stick Insect sp.	Phasmatodea sp.
True Bugs	A True Bug Aphid sp. Ambush Bug sp. Black Legged Tick Cicada sp. Diamond-backed Spittlebug Meadow Plant Bug Red-crossed Stink Bug Giant Water Bug Spittle Bug Spittle Bug Spittle Bug Spittle Bug Spittle Bug Stink Bug sp. Stink Bug Tarnished Plant Bug Treehopper sp. Treehopper True Bug sp. Two – spotted Stink Bug Water Boatmen sp.	Graphocephala coccinea Aphidoidea sp. Phymatidae sp. Ixodes scapularis Cicadidae sp. Lepyronia quadrangularis Leptopderna dolabratus Elasmostethethus cruciatus Belostimatidae Aphrophara sp. Clastoptera sp Pentatomidae sp. Mormidea lugens Lygus lineolaris Cicadellidae sp. Entylia carinata Hemiptera sp. Cosmopepla bimaculata Corixidae sp.

Arachnids	Harvestman sp. Spider sp.	Opiliones sp. Arachnida sp.
Centipedes	Centipede sp.	Chilopoda sp
Crustaceans	Scud sp Sow Bug sp. Virile Crayfish	Amphipoda sp Isopoda sp. Orconectes virilis
Freshwater Mussels	Bivalve sp. Eastern Elliptio Zebra Mussel	Bivalvia sp. Elliptio complanata Dreissena polymorpha
Freshwater Clam	Fingernail Clam	Sphaerium
Millepedes	Millipede sp.	Diplopoda sp.
Other	Leech sp.	Hirudinea sp.
Slugs and Snails	Banded Mystery Snail Slug sp. Snail sp. Swamp Lymnaea	Viviparus georgianus Gastropoda sp. (Slug) Gastropoda sp. (Snail) Lymnaea stagnalis

FLORA

Trees, Shrubs & Forbs

(Note: Forbs is a technical term for herbaceous (non-woody) flowering plants, not including grasses, sedges and rushes)

Don Beattie photo



Plant hikes were lead by local Field Naturalist Edith Lepine and Canadian Wildlife Federation's James Pagé assisted by Eleanor Thomson. The expertise of the hike leaders led to the identification of a large number of species during the Otty Lake 2012 BioBlitz.



Paul Sturmey photo

The large diversity of trees on the properties was explored during a guided walk led by Jeff Ward and Fred Lepine. Everyone noted the impact of the summer's drought on the trees in the area.



Don Beattie photo



Karen Hunt photos



Trees, Shrubs & Forbs Count: 220

Conifers

Balsam Fir **Canadian Yew** Eastern Hemlock Eastern White Cedar Eastern White Pine **Pinus strobus Ground Juniper** White Spruce Picea glauca

Dicotyledons

A Bellflower Allegheny Blackberry Alternate Leaf Dogwood American Basswood American Beech American Bugleweed American Cow-wheat American Elm American Fly-honeysuckle American Hog-peanut American Hornbeam American Spikenard American Water-pennywort **Annual Ragweed** Arrow-leaved Tearthumb **Balsam Poplar** Barren Strawberry **Beaked Hazelnut Bebb's Willow** Beechdrops **Beggar-ticks Birds-foot Trefoil Bitter-nut Hickory** Black Ash Black Holly **Black Medic** Black-eyed Susan **Bluestem Goldenrod**

Abies balsamea

Taxus canadensis Tsuga canadensis Thuja occidentalis Juniperus communis

Campanula cochlearifolia

Rubus allegheniensis Cornus alternifolia Tilia americana Fagus grandifolia Lycopus americanus Melampyrum lineare Ulmus americana Lonicera canadensis Amphicarpaea bracteata Carpinus caroliniana Aralia racemosa Hydrocotyle americana Ambrosia artemisiifolia Polygonum sagittatum Populus balsamifera Waldsteinia fragarioides Corvlus cornuta Salix bebbiana Epifagus virginiana **Bidens tripartita** Lotus corniculatus Carya cordiformis Fraxinus nigra Ilex verticillata Medicago lupulina Rudbeckia hirta Solidago caesia

Bog Yellow-cress Bristly Black Currant Bristly Sarsaparilla Broad-leaved Goldenrod Buckthorn **Bulb-bearing Water-hemlock Bull Thistle** Butter-and-eggs Butternut Calico Aster Canada Buffalo-berry Canada Clearweed Canada Goldenrod Canada Lettuce Canada Thistle Canada Violet **Canadian Pussytoes Catherinettes Berry Choke Cherry** Clasping-leaf Dogbane **Climbing Bittersweet Climbing Nightshade Common Boneset Common Burdock Common Buttonbush Common Dandelion Common Hornwort** Common Mouse-ear Chickweed **Common Red Raspberry Common Selfheal Common Yarrow** Corn Mint **Daisy Fleabane Devil's Beggar-ticks** Ditch-stonecrop Downy Arrowwood Downy Serviceberry **Downy Yellow Violet** Early Meadow-rue Eastern Helleborine Eastern Hop-hornbeam **English Plantain**

Rorippa palustris ssp. hispida **Ribes** lacustre Aralia hispida Solidago flexicaulis Rhamnus cathartica Cicuta bulbifera **Cirsium vulgare** Linaria vulgaris Juglans cinerea Symphyotrichum lateriflorum Shepherdia canadensis Pilea pumila Solidago canadensis var. canadensis Lactuca canadensis **Cirsium arvense** Viola canadensis Antennaria howellii ssp. canadensis **Rubus** pubescens Prunus virginiana Apocynum cannabinum Celastrus scandens Solanum dulcamara Eupatorium perfoliatum Arctium minus ssp. nemorosum Cephalanthus occidentalis Taraxacum officinale Ceratophyllum demersum Cerastium fontanum Rubus idaeus ssp. idaeus Prunella vulgaris ssp. vulgaris Achillea millefolium var. millefolium Mentha arvensis **Erigeron strigosus Bidens frondosa** Penthorum sedoides Viburnum rafinesquianum Amelanchier arborea Viola pubescens var. pubescens Thalictrum dioicum **Epipactis helleborine** Ostrya virginiana Plantago lanceolata

Eurasian Water-milfoil False Nettle False Virginia Creeper **Field Basil** Field Bindweed **Field Pussytoes** Flatleaf Bladderwort **Gay-wing Milkwort Glossy Buckthorn** Gray Dogwood Great Mullein **Greater Bladderwort** Green Ash Hairy Swamp Loosestrife Hairy Sweet-cicely Hardhack Spiraea Heart-leaf Aster Hedge Bindweed Hemlock Water-parsnip Highbush Cranberry Hooded Skullcap Humped Bladderwort Hyssopleaf Fleabane Indian-pipe Indian-tobacco Kansas Milkweed Large Tick-trefoil Large Yellow Pond-lily Large-leaf Wood-aster Larger Canadian St. John's Wort Large-tooth Aspen Late Lowbush Blueberry Leatherleaf Lesser Bladderwort Liverleaf Lopseed Mad Dog Skullcap Maple-leaf Viburnum Marsh Bedstraw Marsh Bellflower Marsh Seedbox Marsh St. John's-wort

Myriophyllum spicatum Boehmeria cylindrica Parthenocissus inserta Clinopodium vulgare Convolvulus arvensis Antennaria neglecta Utricularia intermedia Polygala paucifolia Frangula alnus Cornus foemina ssp. racemosa Verbascum thapsus Utricularia vulgaris Fraxinus pennsylvanica Decodon verticillatus Osmorhiza claytonii Spiraea tomentosa Symphyotrichum cordifolium Calystegia sepium Sium suave Viburnum opulus var. americanum Scutellaria galericulata Utricularia gibba Erigeron hyssopifolius Monotropa uniflora Lobelia inflata Asclepias syriaca Desmodium glutinosum Nuphar advena Eurybia macrophylla Hypericum majus Populus grandidentata Vaccinium angustifolium Chamaedaphne calyculata Utricularia minor Hepatica nobilis var. acuta Phryma leptostachya Scutellaria lateriflora Viburnum acerifolium Galium palustre Campanula aparinoides Ludwigia palustris Triadenum fraseri

Marshpepper Smartweed Meadow Salsify Meadow Willow Mossy-cup Oak Mountain Honeysuckle Mouseear Nannyberry Narrow-leaved Meadow-sweet **Nipple-seed Plantain** Nodding Beggar-ticks Northern Bugleweed Northern Bush-honeysuckle Northern Prickley Ash Northern Red Oak Northern Starflower **Oriental Bitter-sweet** Ox-eye **Oxeye** Daisy Pale St. John's-wort Paper Birch Partridge-berry Pearly Everlasting Philadelphia Fleabane Pin Cherry Plantain-leaved pussytoes Poison Ivy Prickly Gooseberry **Purple Flowering Raspberry Purple Loosestrife Pussy Willow Red Clover Red Maple Red-osier Dogwood Red Raspberry Riverbank Grape Rough-leaf Goldenrod** Roundleaf Dogwood **Round-lobed Hepatica Shining Willow** Silver Maple Silvery Cinquefoil Small Sundrops

Polygonum hydropiper Tragopogon pratensis Salix petiolaris Quercus macrocarpa Lonicera dioica Hieracium pilosella Viburnum lentago Spiraea alba Plantago major **Bidens** cernua Lycopus uniflorus Diervilla lonicera Zanthoxylum americanum Quercus rubra Trientalis borealis Celastrus orbiculata Heliopsis helianthoides Leucanthemum vulgare Hypericum ellipticum Betula papyrifera Mitchella repens Anaphalis margaritacea **Erigeron philadelphicus** Prunus pensylvanica Antennaria parlinii Toxicodendron rydbergii Ribes cynosbati **Rubus odoratus** Lythrum salicaria Salix discolor Trifolium pratense Acer rubrum Cornus sericea Rubus idaeus ssp. strigosus Vitis riparia Solidago rugosa Cornus rugosa Hepatica nobilis var. americana Salix lucida Acer saccharinum Potentilla argentea Oenothera perennis

Southern Arrow-wood Southern Broadleaf Enchanter's Nightshade Speckled Alder Spotted Jewel-weed Spotted Joe-Pye Weed Spreading Dogbane Square-stem Monkeyflower St. John's-wort Staghorn Sumac Stinging Nettle Sugar Maple Sulphur Cinquefoil Swamp Aster Swamp Loosestrife Swamp Milkweed Swamp Rose Sweet Bayberry Sweet-scent Bedstraw Tall Butter-cup Tall Hairy Groovebur Tall Hawkweed Tall Meadow-rue Tall Rattlesnake-root Teaberry Trembling Aspen **Tufted Vetch** Two-leaf Bishop's-cap Upright Yellow Wood-sorrel Velvetleaf Blueberry **Vetchling Peavine** Virginia Anemone Virginia Creeper Virginia Strawberry Water Dock Water Horehound Water Loosestrife Water Smartweed Watershield White Ash White Avens White Baneberry

Viburnum recognitum Circaea lutetiana Alnus incana Impatiens capensis Eupatorium maculatum ssp. maculatum Apocynum androsaemifolium Mimulus ringens Hypericum perforatum Rhus typhina Urtica dioica ssp. dioica Acer saccharum var. saccharum Potentilla recta Symphyotrichum puniceum Lysimachia terrestris Asclepias incarnata Rosa palustris Myrica gale Galium triflorum **Ranunculus acris** Agrimonia gryposepala Hieracium piloselloides Thalictrum pubescens Prenanthes altissima Gaultheria procumbens Populus tremuloides Vicia cracca Mitella diphylla Oxalis stricta Vaccinium myrtilloides Lathyrus palustris Anemone virginiana Parthenocissus quinquefolia Fragaria virginiana Rumex orbiculatus Lycopus americanus Lysimachia thyrsiflora Polygonum amphibium Brasenia schreberi Fraxinus americana Geum canadense Actaea pachypoda

White Clover White Oak White Snakeroot White Turtlehead White Water-lily White-top Fleabane Whorled Water-milfoil Wild Black Cherry Wild Carrot Wild Columbine Wild Licorice Wild Sarsaparilla Woodland Strawberry Yellow Avens Yellow Birch Yellow Clover **Yellow Cowlily**

Trifolium repens Quercus alba Ageratina altissima var. altissima Chelone glabra Nymphaea odorata ssp. odorata **Erigeron annuus** Myriophyllum verticillatum Prunus serotina Daucus carota Aquilegia canadensis Galium circaezans Aralia nudicaulis Fragaria vesca Geum aleppicum Betula alleghaniensis Trifolium aureum Nuphar lutea ssp. variegata

Ferns & Fern Allies

Ferns and Fern allies consist of true ferns, horsetails, and clubmosses. These seedless plants are found in a variety of habitats, particularly in moist forests and wetlands.

Fern & Fern Allies Count: 21

Bracken Fern	Pteridium aquilinum
Blue Ground Cedar	Lycopodium tristachyum
Christmas Fern	Polystichum acrostichoides
Cinnamon Fern	Osmunda cinnamomea
Deep-root Clubmoss	Diphasiastrum tristachyum
Dwarf Scouring Rush	Equisetum scirpoides
Fan Club-moss	Diphasiastrum digitatum
Field Horsetail	Equisetum arvense
Interrupted Fern	Osmunda claytoniana
Lady Fern	Athyrium filix-femina ssp. angustum
Ledge Spike-moss	Selaginella rupestris
Marginal Wood-fern	Dryopteris marginalis
Marsh Fern	Thelypteris palustris
Oak Fern	Gymnocarpium dryopteris
Rattlesnake Fern	Botrychium virginianum

Rock Polypody Royal Fern Sensitive Fern Shining Clubmoss Spinulose Shield Fern Treelike Clubmoss Polypodium virginianum Osmunda regalis Onoclea sensibilis Huperzia lucidula Dryopteris carthusiana Lycopodium dendroideum

Grasses, Sedges & Rushes

This group (the graminoids) are monocotyledon plants with narrow leaves growing from their base and include the families Poaceae (true grasses), Cyperaceae (sedges) and Juncaceae (rushes). Sedges can be differentiated from the grasses and rushes because the sedge stalk has "edges" due to their triangular cross-section. Sedges thrive in wetland habitats.

Lanark County Botanist David White explored the wetland areas in the Mica Mines Conservation Area near Mills Lake and identified a number of the grasses and sedges for our BioBlitz count.

Grasses, Sedges & Rushes Count: 83

Moncotyledons

A Barley	Hordeum marinum ssp. gussonianum	
A Sedge	Carex albursina	
American Mannagrass	Glyceria grandis	
Bearded Shorthusk	Brachyelytrum erectum var. erectum	
Bebb's Sedge	Carex bebbii	
Black Bentgrass	Agrostis gigantea	
Black Sedge	Carex arctata	
Bladder Sedge	Carex intumescens	
Blue Cattail	Typha x glauca	
Blueflag	Iris versicolor	
Blunt Spike-rush	Eleocharis obtusa	
Brazilian Watermeal	Wolffia brasiliensis	
Bristly Sedge	Carex comosa	
Broad Waterweed	Elodea canadensis	
Broadleaf Arrowhead	Sagittaria latifolia	
Broad-leaf Cattail	Typha latifolia	
Canada Bluegrass	Poa compressa	
Canada Blue-joint	Calamagrostis canadensis	
Canada Manna-grass	Glyceria canadensis	

Columbia Watermeal Common Water-flaxseed Cottongrass Bulrush Creeping Spike-rush Cyperus-like Sedge Dark-green Bulrush **Dotted Watermeal** Downy Solomon's-seal Eastern Helleborine **Eel-grass European Frogbit** Feathery False Lily-of-the-Valley Flatleaf Pondweed **Flatstem Pondweed Floating Pondweed Fowl Bluegrass** Fowl Manna-grass Fox Sedge Fringed Sedge Graceful Sedge Greenfruit Bur-reed Illinois Pondweed Inland Sedge Jack-in-the-pulpit Jointed Rush Large Bur-reed Large-leaf Pondweed Least Spike-rush Lesser Duckweed Little Prickly Sedge Longstalk Sedge Meadow Timothy **Necklace Sedge** Path Rush Pennsylvania Sedge **Perenial Bentgrass Pickerel Weed Poverty Oatgrass Reed Canary Grass Retrorse Sedge Ribbon-leaf Pondweed Rice Cutgrass**

Wolffia columbiana Spirodela polyrrhiza Scirpus cyperinus Eleocharis smallii Carex pseudocyperus Scirpus atrovirens Wolffia borealis Polygonatum pubescens **Epipactis helleborine** Vallisneria americana Hydrocharis morsus-ranae Maianthemum racemosum Potamogeton robbinsii Potamogeton zosteriformis Potamogeton natans Poa palustris Glyceria striata var. stricta Carex vulpinoidea Carex crinita Carex gracillima Sparganium emersum Potamogeton illinoensis **Carex** interior Arisaema triphyllum Juncus articulatus Sparganium eurycarpum Potamogeton amplifolius **Eleocharis acicularis** Lemna minor Carex echinata Carex pedunculata Phleum pratense Carex projecta Juncus tenuis Carex pensylvanica Agrostis perennans Pontederia cordata Danthonia spicata Phalaris arundinacea Carex retrorsa Potamogeton epihydrus Leersia oryzoides

Rose Twisted-stalk	Streptopus lanceolatus
Rosy Sedge	Carex rosea
Rough Bentgrass	Agrostis scabra
Slender Naiad	Najas flexilis
Slender Sedge	Carex tenera
Slender Wheatgrass	Elymus trachycaulus ssp. trachycaulus
Small Floating Manna-grass	Glyceria borealis
Soft Rush	Juncus effusus
Soft-stem Club-rush	Schoenoplectus tabernaemontani
Star Duckweed	Lemna trisulca
Starry False Solomon's-seal	Maianthemum stellatum
Stellate Sedge	Carex radiata
Strict Blue-eyed-grass	Sisyrinchium montanum
Three-way Sedge	Dulichium arundinaceum
Tussock Sedge	Carex stricta
Virginia Wild Rye	Elymus virginicus var. virginicus
Wapatum Arrowhead	Sagittaria cuneata
White Beakrush	Rhynchospora alba
White-grained Mountain-ricegrass	Oryzopsis asperifolia
Wild Calla	Calla palustris
Wild-lily-of-the-valley (AKA Mayflower)	Maianthemum canadense
Yellow Sedge	Carex flava

Non-Vascular Plants

Non-vascular plants include the bryophytes (mosses, liverworts and hornworts) and algae. Mosses prefer damp, shaded areas such as forests and creek sides.

Non-Vascular Plant Count: 16

A Hair Cap Moss	Polytrichum piliferum
A Moss	Callicladium haldanianum
A Moss	Dicranum montanum
A Moss	Dicranum polysetum
A Moss	Leucobryum glaucum
A Moss	Polytrichum commune var. commune
A Moss	Climacium dendroides
Broom Moss	Dicranum scoparium
Ciliate Hedwigia Moss	Hedwigia ciliata
Delicate Fern Moss	Thuidium delicatulum

Juniper Moss Leafy Liverwort Rose Rhydobryum Schreber's Moss Shaggy Moss Wavy Broom Moss Polytrichum juniperinum Porella platypylla Rhodobryum roseum Pleurozium schreberi Rhytidiadelphus triquetrus Dicranum polysetum

Fungi & Lichens

Fungi, including mushrooms, moulds, and yeasts, are actually not considered a plant or animal, and instead have their own kingdom of classification. This kingdom is massive and it is estimated that more than 1 million species are in existence with only 5-10% currently identified.



Lichens are the fungi/moss-like organisms found growing on many surfaces such as rocks, bare ground and trees. Lichens are actually a symbiotic relationship (mutually beneficial) between algae and fungi, meaning they are part plant and part fungi. Like fungi, these organisms can be difficult to identify. Field Naturalist Susan Samila led BioBlitz participants in a search for these special organisms.

Evelyn Dore photo - Common Powderhorn Lichen (Cladonia coniocraea)

Fungi & Lichen Count: 24

Board Lichen Boreal Oakmoss Lichen Bottlebrush Shield lichen Common Greenshield Lichen Common Powderhorn Cryptic rosette Lichen Dust Lichen Field Dog Lichen Fluffy Dust Lichen Gray Starburst Lichen Hammered Shield Lichen Jelly Flakes Lichen Mealy Pixie-cup Mealy Rosette Lichen Ochrolechia arborea Trapeliopsis flexuosa Evernia mesomorpha Parmelia squarrosa Flavoparmelia caperata Cladonia coniocraea Physciella chloantha Lepraria incana Peltigera rufescens Lepraria lobificans Parmeliopsis hyperopta Parmelia sulcata Collema undulatum Cladonia chlorophaea Physcia millegrana

- Pixie cup Poplar Sunburst Lichen Powdery Axil-bristle Lichen Reindeer Lichen Rough Speckled Shield Lichen Shingled Rock Shield Lichen Smokey-eye Boulder Lichen Split-peg Lichen Trumpet Lichen
- Cladonia pyxidata Xanthoria hasseana Myelochroa aurulenta Cladonia rangiferina Punctelia rudecta Xanthoparmelia somloensis Porpidia albocaerulescens Cladonia cariosa Cladonia fimbriata

TOTAL SPECIES COUNT

FAUNA		FLORA	
Reptiles & Amphibians	14	Non-Vascular Plants	16
Mammals	7 Trees, Shrubs & Forbs 220		220
Birds	49 Ferns & Fern Allies 21		21
Fish	6	6 Grasses, Sedges & Rushes 83	
Invertebrates	113	Fungi & Lichens 24	
Total Fauna	189	Total Flora	364

Grand Total: 553

Budget

ltem	Stewardship Council	Otty Lake Association	In Kind
Food & Refreshments – water, juice, coffee urns from Tim Hortons, fruit, muffins, sandwiches etc. + final BBQ		\$325.41	Lake Residents provided snacks, muffins, sandwiches throughout event
Printing (species lists, Lyme Disease info, maps, registration lists)	Large map of area + template maps + species checklists	\$127.41	
Supplies (paper cups, flagging tape, Bristol board, name tags, clips, whistles, insect repellent, hand sanitizer etc.)	Clipboards, sandwich boards, water pump, black light,	\$60.98	All participants
Volunteer Appreciation (for Hike and activity leaders = (Otty Lake Maple Syrup)		\$125.00	
Tent/Shelter		\$100.00	Donation to Scouts Canada
Tables			Provided by Otty Lake volunteers
Simon Lunn Nature Photography Sessions		\$100.00	
Children's Program supplies			Foley Mountain Conservation Area
Water and fish sampling equipment			RVCA
Laptop			Stewardship Council
Resources (reference books, aerial map, displays, etc.)			Stewardship Council, OMNR, Various participants
Total		\$838.80	

Total Cost: \$838.80 + significant in-kind support

Lessons Learned

Activities

- Group sizes for guided walks need to be limited as too many participants make it difficult for both leaders and participants to communicate. For most of the activities we were fortunate to have multiple leaders or volunteers who supported the group to ensure that everyone was informed and included.
- Having a special program for young children did increase the number of young families who participated in the 2012 BioBlitz.
- Strong local media attention, promotion in Captain Otty's Log and on the OLA website and the use of the Otty Lake Association events signage in advance of the BioBlitz did seem to encourage a larger number of local residents to come out for the event.

Data Entry

- Species (plants in particular) have multiple common names, making data entry somewhat challenging. In the future, it would help if any species added to the BioBlitz checklist by participants included proper scientific names if at all possible.
- The BioBlitz database needs to be adjusted to accommodate additional species regularly found in our area of Eastern Ontario.
- More species should be added to the BioBlitz checklist so that participants are able to check off their observations on the checklist rather than having to list so many species on additional tally sheets. Many times these additions added in the field are difficult to transcribe and add to the BioBlitz database.



Many thanks to everyone who participated! *Karen*