VERMONT BOTANICAL AND BIRD CLUB NEWSLETTER

FEBRUARY 2014

2014 Annual Meeting Announcement

The 119th Annual Meeting of the Vermont Botanical and Bird Club will be held at Lyndon State College in Lyndonville, Vermont on Thursday, June 12 – Sunday, June 15, 2014.

We look forward to botanizing and birding in the Northeast Kingdom at places including the Lake Willoughby region, Victory Basin Wildlife Management Area, Burke Mountain and the northern Connecticut River valley.

On Campus, we will stay in the Rita Bole Complex, enjoy meals in the Hornet's Nest Snack Bar, and have evening meetings in the Burke Mountain Room.
See: www.lyndonstate.edu

118th Annual Meeting, Ohana Family Camp on Lake Fairlee, Post Mills (Thetford), Vermont June 20 – 23, 2013

A warm morning at Zebedee Marsh/Wetland, Thetford June 22, 2013 CY

EVENING PROGRAMS

THURSDAY, JUNE 20, 2013, 7:00 PM:

Bicknell's Thrush: Conserving a Bird of Two Worlds, by Chris Rimmer, Executive Director of Vermont Center for Ecostudies, Norwich, VT.

A picture of Bicknell's Thrush, silhouetted on a dead branch in a montane forest of balsam fir and red spruce with a continuous cloud layer visible below as far as one could see, perfectly conveys this bird's Summer home. With a total population of ~ 100,000 birds and a restricted breeding range above 3000' elevation in Vermont, New York, New Hampshire, Maine and southeastern Canada, this species is a very high conservation priority in eastern North America.

First noticed by Eugene P. Bicknell on Slide Mountain in the Catskills in June 1881 as an unusual thrush, the curious financier botanist shot and collected a specimen. It was later identified by Robert Ridgeway at Smithsonian Institution as a New England subspecies of the Gray-Cheeked Thrush, which breeds throughout the boreal and taiga regions of Canada.

In the mid-1930's, a farm boy named George J. Wallace from Waterbury and his wife Martha conducted a three-year study of this species on Mount Mansfield for his graduate degree at U. of Michigan. During this time they stayed at Butler Lodge and raised an orphaned nestling for 1 year.

In 1991, a Canadian ornithologist, Henri R. Ouellet, began to suspect that this bird may be a distinct species based on differences in size and color, differences in breeding and wintering grounds, biochemical analysis, and song. In 1992, Chris Rimmer and a team of "Bithnologists" began examining the bird's range, including historical and present day locations. Further analysis revealed that the Bicknell and Gray-cheeked Thrushes diverged about 100 mil years ago. In 1995, the American Ornithologists's Union Checklist Committee officially accepted the evidence and Bicknell's Thrush, *Catherus bicknellii*, is now considered its own species.

In the northern tier of four states, Sky Islands of the Northeast that hold prime breeding habitat above 3000' for Bicknell's Thrush are limited: New York Adirondacks – 263 km^2 ; Vermont Green Mountains – 88 km^2 ; New Hampshire White Mountains – 496 km^2 ; Maine Mountains – 261 km^2 ; New York Catskills – 5 km^2 .

VCE has conducted studies of the thrush on its breeding grounds since the 1990's using mist netting to capture birds that are then measured and sampled (feathers and blood); nestlings are banded; and recently birds have been fitted with radio transmitters and solar geolocators. One individual bird was banded as a yearling on Stratton Mountain in 1997 and recaptured every year except one through 2008. It was calculated that this bird had flown over 40,000 miles in eleven years just migrating.

Many threats face the thrushes in Summer such as climate change, acid rain, communications tower and wind power development, mercury, ski area development, and red squirrel predation. In the White Mountains, Bicknell's Thrush populations have declined by 7% annually from 1993 – 2003.

VCE biologists found that Bicknell's Thrush breeding habits include polygynandry where both males and females mate with multiple partners. Males have larger home ranges that overlap smaller territories held by 2 or 3 females. Males also feed nestlings in more than one nest. They also discovered that the sex ratio of adults was unusual with a mean of 2.2 males to 1 female.

The Bicknell's Thrush winters primarily (80%) on the island of Hispaniola – Dominican Republic and Haiti. Here the challenges are deforestation and human population pressures. VCE biologists have worked with the local partners to promote the studies of the 31 endemic bird species there which will no doubt work to the benefit of the future of the Bicknell's Thrush in its two worlds.

FRIDAY, JUNE 21, 2013, 7:00 PM:

The Basics of Bombus: an Introduction to the Bumblebees of Vermont, by Sara Zahendra, Project Coordinator for the Vermont Bumblebee Survey, Vermont Center for Ecostudies.

Sara talked about the Vermont Bumblebee Survey that she is conducting for the Vermont Center of Ecostudies to collect baseline data about the present occurrence and distribution of species of bumblebees in Vermont. Bumblebees (and bees and wasps) belong to the Order Hymenoptera (attached wing) and include 33 species in northeastern North America. Historically, Vermont has 19 species (although two may have been vagrants) of bumblebees; of those, only 12 species are currently found, so the state may have lost 5 species in relatively recent times. For example, *Bombus affinis* was the second most commonly collected bumblebee in the 1960's and became steadily less commonly found until 1999 when the last known specimen was detected.

All bees feed pollen to their young as a protein source; wasps largely feed meat or carrion to their young. Honey bees, most notably *Apis mellifera*, are non-native to North America and were brought to this country about 300 years ago to pollinate domestic food crops. They form large, highly social perennial colonies and can survive Winter on stored food.

Bumblebees form smaller annual colonies where all the bees die except for a fertilized queen which spends the Winter in a suspended state of diapause. A bumblebee's life cycle begins in early Spring when a queen emerges from underground, possibly an abandoned rodent hole, and seeks out blue, purple and dark purple colors. She then feeds on rhododendron and dandelion; and then sets about looking for a good nest location where she will exude wax from between segments to make a honey pot for food storage and wax cones for eggs. She makes a pollen loaf from pollen, saliva and nectar and places a bit in each cone. She lays 5 – 8 eggs that will become female worker bees in about 5 to 6 weeks.

The queen bumblebee continues to lay eggs for subsequent broods of female worker bees. Sometime later in Summer, she lays unfertilized eggs that will become male drones that will mate with new queens to prepare for the next Summer's season. Queen and female bumblebees (from fertilized eggs) are diploid; male bumblebees (from unfertilized eggs) are haploid. That means that about 75 % of the worker bees are closely related and may be the reason behind the high level of cooperation that they engage in to forage for and feed new generations. The young male drones are driven from the nest possibly because they have less genes in common with their sisters.

Bumblebees are the best pollinators of tomato and blueberry fields. The frequency of their wingbeat is the right Hertz to dislodge pollen making it easy to collect. *Bombus impatiens* and *Bombus terrestris* have been sent to a European breeding program in order to increase their numbers. Sadly they have been exposed to an Old World gut parasite which may be affecting other New World native species as the bees inevitably escape from greenhouses.

Other challenges face bumblebees and bees of all kinds. Habitat change and loss may make it hard to find the food necessary to survive. Newer pesticides, such as neonicitinoids, which have a low toxicity for mammals, are found in nectar and pollen. Climate change may also exacerbate the other pressures that all plants and animals must face.

Thanks to the work of Sara and Chris and their colleagues at VCE we stand to learn a lot about the varied life forms that inhabit and make up our natural world.

Vermont Center for Ecostudies (VCE) advances conservation of wildlife across the Americas through research, monitoring and citizen engagement.
see: www.vtecostudies.org

SATURDAY, JUNE 22, 2013, 7:00 PM:

Annual Business Meeting
Ohana Family Camp Main Lodge
Post Mills (Thetford), VT

followed by **Slides by Members Show**

I. Secretary's Report

Scott Bassage read an update (April, 2013) from Arthur Gilman about the progress of publication by New York Botanical Garden of *New Flora of Vermont*. " I have at long last received back the copy-edited ms. from NYBG, and have three weeks to make minor corrections. Then it will go to page-making and then proofreading." The Club donated $3000 in 2011 toward its publication. We all look forward to this great work. Everett Marshall said that this Flora is organized to Family and Genera and contains great habitat descriptions and distribution information. Fritz Garrison asked if it will be published as an eBook as well. That is not known at this time.

Scott distributed photo copies of the Club portrait taken at the 2012 meeting at St. Michael's College by Peter Hope to everyone. Thank you Scott.

II. Treasurer's Report

Treasurer Charlotte Bill handed out the Report and described the status of the three accounts and the results of the meeting at St. Michael's in 2012.

1) Certificate of Deposit, Merchant's Bank, Johnson, VT $10,475.45 on June 9, 2013
2) Green Century Equity Fund, Green Century Funds, Indianapolis, IN $15,299.39 on June 18, 2013 [That is 590.482 shares valued at $25.91 per share]
3) Checking Account, People's United Bank (formerly Chittenden Bank) $5,231.60

The 2013 Scholarship Appeal raised $633.00 for the Current Year/Rollover Fund; $10.00 more was received in 2012 after the meeting; $1063.00 was expended for 5 students at the 2012 meeting for a balance of $1,017.29 in the Checking Account on June 1, 2013. The 2013 Scholarship Appeal raised $345.00 for the Endowment Fund; plus $25.86 interest on the CD for a total of $11,810.82 on June 9, 2013.

The 2012 Annual Meeting had $6,461.35 in Expenses and $6,768.50 in Revenues for a positive balance of $307.15.

Scott Bassage moved and Barbara Walling seconded that the Treasurer's Report be approved. All voted in favor.

III. Scholarship Report [discussed later in the evening, but presented here]

The Scholarship Report was presented by Scott Bassage. Our one superb student this year is Rebecca Cushing from UVM Field Naturalist Program. Her Professor, Bryan Pfeiffer, said "Becky is inquisitive, exuberant and has a natural inclination to learn. She also excels around other people." See more about her interests under the Henry Potter Scholarship Student – 2013 on page 7 in this Newsletter.

We also had two very qualified candidates from Upper Valley Land Trust who very much wanted to attend but who were inextricably tied up with their busy Summer work schedules.

IV. Nominating Committee – Elections

Peter Hope and Fritz Garrison presented the Slate of nominees:

Secretary	Scott Bassage
Treasurer	Charlotte Bill
Vice-President Birds	Connie Youngstrom
Vice-President Plants	Everett Marshall
President	Deborah Benjamin

Charlotte Hanna moved and Sue Elliott seconded that the Slate be approved. All voted Aye.

V. Field Trip Reports – Plants, Birds:

Plants 2013:

Everett Marshall called for members' special highlights and began with his – Quechee State Park swamp and white pine forest during the scouting evening walk-through in light rain where the cinnamon ferns and touch-me-knot appeared to glow in the dim light. Connie appreciated the freshly emerging pinesap at Eshqua Bog. Sara pointed out the white and black ash. Charlotte H. liked "ferns – any of them" and the beech fern at Quechee was new for her. Ann said that she learned that rue has male and female flowers of separate plants. Peter liked the array of Dryopteris seen on the saturday morning bird walk at Ted Levin's Coyote Hollow property – intermediate, spinulose, crested, Boot's, Clinton's; and he was impressed by the tiny Woodsia Fern at the rock outcrop that was fertile. Charlotte B. liked the path rush at Deweys Mills Pond, especially the flower under a hand lens. Barbara noted the interrupted fern – the one species that she knows. Debbie said the showy lady's-slippers at Eshqua Bog deserve a round of applause for being in perfect bloom. All agreed.

Birds 2013:

Connie Youngstrom said that the Friday morning bird walk was well attended by both people and birds – 14 people saw and heard 37 species. At Quechee, Tig had a Willow Flycatcher fledgling in his scope and the whole group saw the female Hooded Merganser that "looks like it had egg in its hair". See Bird Notes and Bird List on page 16

Roy gave a list of Butterflies that he noted:

Peck's Skipper
European Skipper
Canadian Tiger Swallowtail
White Admiral
Viceroy at Eshqua Bog (plus one mystery)
Eastern Tailed Blue at Esqua Bog
Cabbage White
Black Swallowtail at Deweys Mills Pond

VI. 2014 Meeting

Names of favorite places and some new ideas were raised – Quimby Country, Missisquoi NWR region, Lyndon State College, Goddard College, Vermont College of Fine Arts.

VII. Other Business

The Club discussed the rates which it pays to evening speakers and to field trip leaders. Motions and amended motion followed:

I. Motion: Charlotte Hanna moved and Ann Burcroff seconded that the Club raise the amount it pays to an evening speaker from $100 to $250.

> Amendment: Connie Youngstrom moved and Barbara Walling seconded that the motion be amended to raise the amount to $150.
>
> The amendment passed with of a vote of 10 in favor and 5 opposed.

The amended motion to raise the amount that the Club pays to an evening speaker from $100 to $150 passed with a vote of Yes – 13; No – 1.

II. Motion: Charlotte Bill moved and Scott Bassage seconded that the Club send a $100 check to Vermont Center for Ecostudies to retroactively augment Chris' and Sara's fees to reflect the new rates. The vote passed all in favor.

III. Motion: Charlotte Bill moved and Tig Arnold seconded that the Club raise the amount it pays to a field trip leader from $100 to $150. The vote passed with all in favor.

The Club also offers relevant meals to evening speakers and to field trip leaders.

Ann Burcroff moved and Scott Bassage seconded that the Business Meeting adjourn. All voted in favor including a chorus of Spring Peepers.

Slides by Members Show

1. Sue and Marvin Elliott – Alaska

Sue and Marvin showed pictures of flowers that they liked on a trip to Alaska in June 2012. In British Columbia along the Alaska Highway cotton grass stretched as far as the eye could see - "it should be the state flower".

They also showed pictures of birds including a rising Bald Eagle with a large fish in its beak, so heavy that it had to circle around again to get over the trees. Pacific Loon on a day in the rain; an Orange-crowned Warbler up close from a tower; Trumpeter Swans at 5:00 AM; and a Tufted Puffin which bore a striking resemblance to Donald Trump.

2. Debbie Benjamin – Ovenbird and Ohana

Debbie told the story of how she was walking by herself in the woods at the High Ponds Farm in Montgomery and keeping out of the wind on a cold June 4. "Out from under my foot came what I thought was dirt and leaves but which turned out to be an Ovenbird. I stood on one foot while I looked at the ground to avoid stepping on a nest. There I saw an egg on the ground just outside the door of the nest which contained four other eggs. I returned the egg, retreated and hoped for the best."

From this years meeting, she showed: a giant Jack-in-the-pulpit, a beautiful pond lily at Deweys Mills Pond, showy lady's-slippers, two woodpecker holes – Pileated at Zebedee Marsh and Hairy at the Mystery Trail, Baltimore Oriole glowing in the sunshine, a picturesque Rusty Woodsia on the rock outcrop; and finally a mystery round hole drilled in the rock – nest ?

3. Roy Pilcher – Butterflies by the 2 dozen

Roy showed pictures of many butterflies that he has encountered while censusing for the Butterfly Atlas in alphabetical order - A- Atlantis Frittilary; B- Baltimore Checkerspot; C – Clouded Sulphur; D – Dreamy Duskywing; E – Eastern tailed Blue; G – Giant Swallowtail (first observed in VT in 2011 and increasing each year since); H – Harris' Checkerspot; all the way through M – Monarch; P – Painted Lady; Q – Question Mark to V – Viceroy.

4. Tig Arnold – Cicadas and Ohana

Tig's home area in the mid-Hudson River Valley region is experiencing a 17-year Brood 2 Cicada event this year. He showed several pictures of this 2 1/2" insect that has big red eyes and 3 orange, light sensitive organs on the forehead.

From this year, he showed: forget-me-not, geum, tufted loosestrife, "people reading scripture in the woods", pitcher plants, sundew, sapsuckers.

5. Peter Hope – Ohana, Costa Rica, Burn at Camp Johnson, and 35 x

We enjoyed a Club group picture on the steps of the Main Lodge at Ohana – close up or not. Rusty Woodsia and Obtuse Woodsia were very photogenic on the rock wall outcrop at Union Village Dam.

A contemplative Howler Monkey smiled down from a tall tree. Calliandra ,'beautiful stamens', showed the reason for its name. Two birds from North America - Summer Tanager and Blue-gray Gnatcatcher.- winter in Costa Rica. We wondered how a Chestnut-mandibled Toucan ever looks closely at anything.

Full Moon over Bolton - "I didn't see the birds when I took the picture".

On May 1, Camp Johnson conducted its third controlled burn (also done in 1995 and 1998) to burn off the leaf litter and help the Pitch Pine and Red Pine there regenerate. 2 out of 6 units were burned or about 5 acres.
A Barred Owl spent Memorial Day posing for a 35 x plus digital extension video and zoom out.

HENRY POTTER SCHOLARSHIP STUDENT – 2013

We very much enjoyed Rebecca Cushing's presence at the meeting this year. She is a graduate student in the Field Naturalist Program at the University of Vermont. In her own words:

"Although I grew up in Saratoga Springs, New York my interest in nature truly developed during the summer months I spent on the coast, watching shorebirds and paddling through New England salt marshes. I recorded wildlife observations on a tiny notepad and kept odorous specimens - Mermaid purses, jingle shells and crab claws - in the drawer of my bedside table. It was not until I became a student at Middlebury College that I truly fell in love with Vermont and its mountains.

Now, as a graduate student in the Field Naturalist Program at the University of Vermont, I spend a lot of time trying to understand the landscape and thinking about tough questions like, "what are the threats to this land?" or "what will this site look like in 100 years?" As I wrap up my graduate degree next month I will be looking for opportunities to apply my skills as a land manager. And, while I entered the program to *become* a Field Naturalist, I have realized that this is a lifelong quest."

CLUB NOTE

On Sunday, April 7, 2013 many people gathered at the Norwich Inn in Norwich to celebrate the publication in hardcover of The Second Atlas of Breeding Birds of Vermont edited by Rosalind Renfrew, University Press of New England, 2013. Atlassing volunteers and staff from Vermont Center for Ecostudies traded stories of the many memories that this 5-year project generated. Several people present were also part of the first atlassing effort that produced the 1st Atlas in 1985. The Club is very proud to have donated to this most worthy of endeavors that will be used for many years to come.

MEMBERS MEMORABLE MOMENTS

… The Book of Newcombs
… human disturbance or disturbed humans ?
… "right to die" moss
… pizza fungus – even animals wouldn't eat it
… I was told it was a bird walk but I fell off the wagon.
… Finally she's come around to the ferns !
… Underwear 1800's – 1990's – Positive Proof of Global Warming
… Hairy Squarey in the Cherry
… I'll bet you never thought of me as a fashion statement.
… You live for a week and you can't eat - Sad

FIELD TRIPS 2013

I. NORTH TRIP: Friday Leader – Everett Marshall; Saturday Leader – Annie Reed
The North Trip is entirely within the town of Thetford.

1. Zebedee Marsh/Wetland, Thetford
Travel 0.25 mile north on Houghton Hill Road from RT 113 in Thetford Hill and park in a small pullover on the right. Additional parking is a short way down the road with care taken not to block the state forest gate. Zebedee Marsh/Wetland is a large old beaver pond with surrounding wet forest and drier white pine and hemlock upland. Stop and read the kiosk and learn that it is dedicated to Linny Levin, a local naturalist and teacher, who found the tiniest most insignificant bit of life fascinating and worthy of appreciating with her students. A 0.75 mile trail encircles the marsh. We will travel counterclockwise a way on a nice footpath and boardwalk and then return; those who want to may complete the loop but must cross a beaver dam at the very end which is very wet.

2. Lunch Spot at a Swimming Hole along the Ompompanoosuc River, Thetford
This spot in the Union Village Dam Recreation Area along the Ompompanoosuc River is our lunch stop. From Thetford Center travel south on Buzzell Bridge Road about 0.4 miles to a gate

that is open. Continue a short distance and the Swimming Hole area is on the right with parking, picnic tables, gravel beach and portalet toilets. [No Nude Swimming !]

3. The Mystery Trail, Union Village Dam Recreation Area, Thetford
Continue south on Buzzell Bridge Road to The Mystery Trail pullover on the right. It is also part of the Union Village Dam Recreation Area, which is a total of 1000 acres that protects the the West and East Branches of the Ompompanoosuc River with a great flood control dam a little further south at Union Village. The Mystery Trail is a 0.75 mile natural and cultural walk through several habitats – river, beaver pond, alder thickets, hardwood and mixed forest, old fields and early successional fields. We may hear/see American Bittern and Green Heron, Willow Flycatcher and a host of forest and wetland songbirds.

4. Rock Outcrop at the Dam, Thetford
Further south down Buzzell Bridge Road and opposite the large flood control dam is a natural rock outcrop – Dgm - Gile Mountain Meetinghouse Slate Member - – that holds many wildflowers and ferns including *Woodsia obtusa* and *Woodsia ilvensis*.

Return to Ohana by traveling back north on Buzzell Bridge Road to RT 113.

II. SOUTH TRIP: Friday Leader – Peter Hope; Saturday Leader – Everett Marshall
The South Trip will carpool south on I – 91 to I – 89 and then on to Hartford and Hartland. The distance to the first stop is 25 miles.

1., 2., 3. Quechee Gorge/Causeway/Deweys Mills Pond, Hartford
Quechee Gorge is part of the 612-acre Quechee Gorge State Park. We will begin our visit by stopping at the first parking area with picnic tables north of RT 4 on Deweys Mills Pond Road. From here, we will see the main dam and then walk north to the causeway between the Ottaquechee River and Deweys Mills Pond. The narrow strip of flat land holds many songbirds in its shrubs and trees and views across the mill pond may reveal waterfowl. It is 0.6 mile to the north end of the pond. A spotting scope would be good to have along.

In the other direction, south on the Gorge Trail, the walk passes under RT 4 and reveals the upper gorge area where water drops a total of 165 feet. The wide gravel path descends gently to a series of wooded basin swamps where moist conditions hold many ferns, including broad beech fern, and plants under towering white pine and hemlock. The Club has a Special Use Permit and may travel on the trail that links to the Quechee State Park that is marked “registered campers only”.

This area will be our morning visit and lunch spot. There are plenty of bathrooms at the Quechee Gorge Visitor Center on the south side of RT 4. We want to be leaving for site 2, Eshqua Bog, by 12:30 to be able to fully enjoy its offerings.

Continue east on RT 4, and where the road turns 90° right to Woodstock, we will turn left and go uphill on Hartland Hill Road. In 1.2 miles, bear right onto Garvin Hill Road and travel 1.2 miles to the Eshqua Bog Natural Area on the right.

4. Eshqua Bog Natural Area, Hartland
Eshqua Bog is a 40.8 acre preserve owned by the New England Wild Flower Society and The Nature Conservancy and protects the 8 acre rich fen that supports a large population of showy lady's-slippers and other bog species. A one mile trail encircles and passes through the bog with a 200 foot boardwalk that allows visitors to see the flowers without trampling the delicate habitat. The showies should be in full bloom this weekend.

Return to Ohana the way we came. We could stop at the Quechee Gorge Visitor Center.

PLANT LIST – 2013 compiled by Everett Marshall and Annie Reed

Dewey's Mills Pond and Quechee Gorge, Hartland

Scientific Name	Common Name	Family
Acer negundo	Box Elder	Sapindaceae
Aegopodium podagraria	Bishop's Goutweed	Apiaceae
Angelica atropurpurea	Purple -stemmed Angelica	Apiaceae
Bromus inermis	Smooth Brome	Poaceae
Cornus alternifolia	Alternate-Leaved Dogwood	Cornaceae
Hesperis matronalis	Dame's-Rocket	Brassicaceae
Impatiens capensis	Spotted Touch-Me-Not	Balsaminaceae
Iris pseudacorus	Yellow Iris	Iridaceae
Lythrum salicaria	Purple Loosestrife	Lythraceae
Nymphaea odorata	White Water Lily	Nymphaeaceae
Onoclea sensibilis	Sensitive Fern	Onocleaceae
Osmundastrum cinnamomeum	Cinnamon Fern	Osmundaceae
Parthenocissus quinquefolia	Virginia-Creeper	Vitaceae
Persicaria virginiana	Jumpseed	Polygonaceae
Phalaris arundinacea	Reed Canary Grass	Poaceae
Phegopteris connectilis	Long Beech Fern	Thelypteridaceae
Pinus resinosa	Red Pine	Pinaceae
Plantago major	Common Plantain	Plantaginaceae
Rhus typhina	Staghorn Sumac	Anacardiaceae
Robinia pseudoacacia	Black Locust	Fabaceae
Rubus odoratus	Flowering Raspberry	Rosaceae
Sagittaria latifolia	Common Arrowhead	Alismataceae
Turritis glabra	Tower-Mustard	Brassicaceae
Vitis riparia	River Grape	Vitaceae

Zebedee Marsh, Thetford

Abies balsamea	Balsam Fir	Pinaceae
Acer rubrum	Red Maple	Sapindaceae
Acer spicatum	Mountain Maple	Sapindaceae
Alnus serrulata	Smooth Alder	Betulaceae
Amphicarpaea bracteata	American Hog-Peanut	Fabaceae
Anthoxanthum odoratum	Large Sweet Grass	Poaceae
Arisaema triphyllum var. stewardsonii	Jack-in-the-pulpit	Araceae
Arisaema triphyllum var. triphyllum	Jack-In-The-Pulpit	Araceae
Berberis thunbergii	Japanese Barberry	Berberidaceae
Bidens cernua	Nodding Beggar-Ticks	Asteraceae
Brachyelytrum erectum	Southern Long-Awned Wood Grass	Poaceae
Carex arctata	Drooping Woodland Sedge	Cyperaceae
Carex crawfordii	Crawford's Sedge	Cyperaceae

Carex crinita	Fringed Sedge	Cyperaceae
Carex debilis	White-Edged Sedge	Cyperaceae
Carex flava	Yellow-Green Sedge	Cyperaceae
Carex gynandra	Nodding Sedge	Cyperaceae
Carex intumescens	Greater Bladder Sedge	Cyperaceae
Carex leptalea	Bristly-Stalk Sedge	Cyperaceae
Carex pensylvanica	Pennsylvania Sedge	Cyperaceae
Carex scoparia	Pointed Broom Sedge	Cyperaceae
Carex vulpinoidea	Common Fox Sedge	Cyperaceae
Celastrus orbiculatus	Asian Bittersweet	Celastraceae
Clematis virginiana	Virginia Virgin's-Bower	Ranunculaceae
Cornus canadensis	Canada Dwarf-Dogwood	Cornaceae
Deparia acrostichoides	Silvery False Spleenwort	Woodsiaceae
Diphasiastrum digitatum	Southern Ground-Cedar	Lycopodiaceae
Dryopteris carthusiana	Spinulose Wood Fern	Dryopteridaceae
Dryopteris clintoniana	Clinton's Wood Fern	Dryopteridaceae
Dryopteris cristata	Crested Wood Fern	Dryopteridaceae
Dryopteris intermedia	Evergreen Wood Fern	Dryopteridaceae
Dryopteris marginalis	Marginal Wood Fern	Dryopteridaceae
Dryopteris x bootii	Boot's Wood Fern	Dryopteridaceae
Eleocharis tenuis	Slender Spikesedge	Cyperaceae
Equisetum arvense	Field Horsetail	Equisetaceae
Equisetum sylvaticum	Wood Horsetail	Equisetaceae
Erigeron annuus	Annual Fleabane	Asteraceae
Erigeron pulchellus	Robin's Plantain Fleabane	Asteraceae
Euphorbia maculata	Spotted Sandmat	Euphorbiaceae
Euthamia graminifolia	Common Grass-Leaved-Goldenrod	Asteraceae
Fagus grandifolia	American Beech	Fagaceae
Fragaria virginiana	Common Strawberry	Rosaceae
Fraxinus americana	White Ash	Oleaceae
Fraxinus nigra	Black Ash	Oleaceae
Galium palustre	Marsh Bedstraw	Rubiaceae
Galium triflorum	Fragrant Bedstraw	Rubiaceae
Geum rivale	Water Avens	Rosaceae
Glyceria striata	Fowl Manna Grass	Poaceae
Gymnocarpium dryopteris	Northern Oak Fern	Woodsiaceae
Hesperis matronalis	Dame's-Rocket	Brassicaceae
Ilex laevigata	Smooth Winterberry	Aquifoliaceae
Impatiens capensis	Spotted Touch-Me-Not	Balsaminaceae
Iris versicolor	Blue Iris	Iridaceae
Juncus bufonius	Toad Rush	Juncaceae
Juncus effusus	Common Soft Rush	Juncaceae
Juncus species	Rush	Juncaceae

Juncus tenuis	Path Rush	Juncaceae
Lonicera morrowii	Morrow's Honeysuckle	Caprifoliaceae
Lonicera tatarica	Tatarian Honeysuckle	Caprifoliaceae
Lycopodium clavatum	Common Clubmoss	Lycopodiaceae
Lycopus americanus	American Water-Horehound	Lamiaceae
Lysimachia nummularia	Creeping Yellow-Loosestrife	Myrsinaceae
Lysimachia terrestris	Swamp Yellow-Loosestrife	Myrsinaceae
Lysimachia thyrsiflora	Tufted Yellow-Loosestrife	Myrsinaceae
Maianthemum canadense	Canada-Mayflower	Ruscaceae
Matteuccia struthiopteris	Ostrich Fern	Onocleaceae
Mitchella repens	Partridge-Berry	Rubiaceae
Myosotis scorpioides	Water Forget-Me-Not	Boraginaceae
Onoclea sensibilis	Sensitive Fern	Onocleaceae
Osmunda claytoniana	Interrupted Fern	Osmundaceae
Osmunda regalis	Royal Fern	Osmundaceae
Osmundastrum cinnamomeum	Cinnamon Fern	Osmundaceae
Parathelypteris noveboracensis	New York Fern	Thelypteridaceae
Phalaris arundinacea	Reed Canary Grass	Poaceae
Phegopteris connectilis	Long Beech Fern	Thelypteridaceae
Phleum pratense	Common Timothy	Poaceae
Pinus strobus	Eastern White Pine	Pinaceae
Poa alsodes	Grove Blue Grass	Poaceae
Polystichum acrostichoides	Christmas Fern	Dryopteridaceae
Populus balsamifera	Balsam Poplar	Salicaceae
Prunella vulgaris	Common Selfheal	Lamiaceae
Prunus serotina	Black Cherry	Rosaceae
Pteridium aquilinum	Bracken Fern	Dennstaedtiaceae
Quercus rubra	Northern Red Oak	Fagaceae
Ranunculus recurvatus	Hooked Crowfoot	Ranunculaceae
Rhamnus cathartica	European Buckthorn	Rhamnaceae
Rosa multiflora	Rambler Rose	Rosaceae
Rubus idaeus	Red Raspberry	Rosaceae
Rubus pubescens	Dwarf Raspberry	Rosaceae
Scirpus atrovirens	Dark-Green Bulrush	Cyperaceae
Scirpus cyperinus	Common Woolsedge	Cyperaceae
Solanum dulcamara	Climbing Nightshade	Solanaceae
Solidago gigantea	Smooth Goldenrod	Asteraceae
Solidago rugosa	Common Wrinkle-Leaved Goldenrod	Asteraceae
Spiraea alba	White Meadowsweet	Rosaceae
Spiraea tomentosa	Rosy Meadowsweet	Rosaceae
Stellaria aquatica	Giant-Chickweed	Caryophyllaceae
Symphyotrichum puniceum	Purple-Stemmed American-Aster	Asteraceae
Thalictrum pubescens	Tall Meadow-Rue	Ranunculaceae

Thelypteris palustris	Marsh Fern	Thelypteridaceae
Triadenum virginicum	Virginia Marsh-St. John's-Wort	Hypericaceae
Uvularia sessilifolia	Sessile-Leaved Bellwort	Colchicaceae
Valeriana officinalis	Common Valerian	Caprifoliaceae
Veratrum viride	American False Hellebore	Melanthiaceae
Viburnum lentago	Nannyberry	Adoxaceae

Mystery Trail, Union Village Dam Recreation Area, Thetford

Acer negundo	Box Elder	Sapindaceae
Acer rubrum	Red Maple	Sapindaceae
Acer saccharum	Sugar Maple	Sapindaceae
Achillea millefolium	Common Yarrow	Asteraceae
Actaea rubra	Red Baneberry	Ranunculaceae
Agrimonia gryposepala	Common Agrimony	Rosaceae
Alnus incana	Speckled Alder	Betulaceae
Amphicarpaea bracteata	American Hog-Peanut	Fabaceae
Anemone virginiana	Tall Windflower	Ranunculaceae
Anthoxanthum odoratum	Large Sweet Grass	Poaceae
Aralia nudicaulis	Wild Sarsaparilla	Apiaceae
Arctium lappa	Great Burdock	Asteraceae
Arisaema triphyllum	Jack-In-The-Pulpit	Araceae
Athyrium filix-femina	Northern Lady Fern	Woodsiaceae
Betula populifolia	Gray Birch	Betulaceae
Carex brunnescens	Brownish Sedge	Cyperaceae
Carex pedunculata	Long-Stalked Sedge	Cyperaceae
Carex pensylvanica	Pennsylvania Sedge	Cyperaceae
Carex stipata	Awl-Fruited Sedge	Cyperaceae
Carya cordiformis	Bitternut Hickory	Juglandaceae
Circaea canadensis	Broad-Leaved Enchanter's-Nightshade	Onagraceae
Cirsium arvense	Creeping Thistle	Asteraceae
Cornus alternifolia	Alternate-Leaved Dogwood	Cornaceae
Cornus racemosa	Gray Dogwood	Cornaceae
Corylus cornuta	Beaked Hazelnut	Betulaceae
Cystopteris tenuis	Mackay's Fragile Fern	Woodsiaceae
Dichanthelium clandestinum	Deer-Tongue Rosette-Panicgrass	Poaceae
Diervilla lonicera	Bush-Honeysuckle	Caprifoliaceae
Dryopteris marginalis	Marginal Wood Fern	Dryopteridaceae
Equisetum arvense	Field Horsetail	Equisetaceae
Equisetum hyemale	Tall Scouring-Rush	Equisetaceae
Erigeron annuus	Annual Fleabane	Asteraceae
Eurybia divaricata	White Wood-Aster	Asteraceae
Eurybia macrophylla	Large-Leaved Wood-Aster	Asteraceae
Euthamia graminifolia	Common Grass-Leaved-Goldenrod	Asteraceae
Eutrochium maculatum	Spotted Joe-Pye Weed	Asteraceae
Fagus grandifolia	American Beech	Fagaceae
Fragaria virginiana	Common Strawberry	Rosaceae

Galeopsis tetrahit	Brittle-Stemmed Hemp-Nettle	Lamiaceae
Galium triflorum	Fragrant Bedstraw	Rubiaceae
Geum canadense	White Avens	Rosaceae
Gleditsia triacanthos	Honey-Locust	Fabaceae
Gymnocarpium dryopteris	Northern Oak Fern	Woodsiaceae
Hamamelis virginiana	American Witch-Hazel	Hamamelidaceae
Helianthus decapetalus	Thin-Leaved Sunflower	Asteraceae
Impatiens capensis	Spotted Touch-Me-Not	Balsaminaceae
Lonicera sp.		
Luzula multiflora	Common Wood Rush	Juncaceae
Maianthemum canadense	Canada-Mayflower	Ruscaceae
Maianthemum racemosum	False Solomon's-Seal	Ruscaceae
Matteuccia struthiopteris	Ostrich Fern	Onocleaceae
Medeola virginiana	Indian Cucumber Root	Liliaceae
Mitchella repens	Partridge-Berry	Rubiaceae
Mitella diphylla	Two-Leaved Bishop's-Cap	Saxifragaceae
Onoclea sensibilis	Sensitive Fern	Onocleaceae
Parthenocissus quinquefolia	Virginia-Creeper	Vitaceae
Pastinaca officinalis	Wild Parsnip	Apiaceae
Phegopteris connectilis	Long Beech Fern	Thelypteridaceae
Pilosella caespitosa	Yellow Hawkweed	Asteraceae
Pinus strobus	Eastern White Pine	Pinaceae
Polystichum acrostichoides	Christmas Fern	Dryopteridaceae
Populus grandidentata	Big-Toothed Poplar	Salicaceae
Potentilla recta	Sulphur Cinquefoil	Rosaceae
Potentilla simplex	Old-Field Cinquefoil	Rosaceae
Prunella vulgaris	Common Selfheal	Lamiaceae
Prunus virginiana	Choke Cherry	Rosaceae
Pteridium aquilinum	Bracken Fern	Dennstaedtiaceae
Pyrola elliptica	Elliptic-Leaved Shinleaf	Ericaceae
Quercus rubra	Northern Red Oak	Fagaceae
Ranunculus abortivus	Kidney-Leaved Crowfoot	Ranunculaceae
Ranunculus acris	Tall Crowfoot	Ranunculaceae
Rhamnus cathartica	European Buckthorn	Rhamnaceae
Ribes cynosbati	Eastern Prickly Gooseberry	Grossulariaceae
Robinia pseudoacacia	Black Locust	Fabaceae
Rubus idaeus	Red Raspberry	Rosaceae
Rubus odoratus	Flowering Raspberry	Rosaceae
Rumex acetosella	Sheep Dock	Polygonaceae
Rumex obtusifolius	Bitter Dock	Polygonaceae
Sanicula marilandica	Maryland Sanicle	Apiaceae
Silene latifolia	White Campion	Caryophyllaceae
Silene vulgaris	Bladder Campion	Caryophyllaceae
Solidago flexicaulis	Ziz-Zag Goldenrod	Asteraceae
Solidago gigantea	Smooth Goldenrod	Asteraceae
Solidago rugosa	Common Wrinkle-Leaved Goldenrod	Asteraceae

Spiraea tomentosa	Rosy Meadowsweet	Rosaceae
Symphyotrichum cordifolium	Heart-Leaved American-Aster	Asteraceae
Taxus canadensis	American Yew	Taxaceae
Thalictrum dioicum	Early Meadow-Rue	Ranunculaceae
Thalictrum pubescens	Tall Meadow-Rue	Ranunculaceae
Tiarella cordifolia	Foam-Flower	Saxifragaceae
Tortella tortuosa	Moss	
Toxicodendron radicans	Poison-Ivy	Anacardiaceae
Tragopogon pratensis	Meadow Goat's Beard	Asteraceae
Trillium erectum	Red Wakerobin	Melanthiaceae
Trillium undulatum	Painted Wakerobin	Melanthiaceae
Ulmus americana	American Elm	Ulmaceae
Uvularia sessilifolia	Sessile-Leaved Bellwort	Colchicaceae
Veratrum viride	American False Hellebore	Melanthiaceae
Verbascum thapsus	Common Mullein	Scrophulariaceae
Viola canadensis	Canada White Violet	Violaceae
Zizia aurea	Common Golden Alexanders	Apiaceae

Eshqua Bog, Hartland

Acer rubrum	Red Maple	Sapindaceae
Betula alleghaniensis	Yellow Birch	Betulaceae
Betula papyrifera	Paper Birch	Betulaceae
Caltha palustris	Marsh-Marigold	Ranunculaceae
Carex crinita	Fringed Sedge	Cyperaceae
Carex flava	Yellow-Green Sedge	Cyperaceae
Carex gracilescens	Slender Loose-Flowered Sedge	Cyperaceae
Carex intumescens	Greater Bladder Sedge	Cyperaceae
Chelone glabra	White Turtlehead	Plantaginaceae
Cornus canadensis	Canada Dwarf-Dogwood	Cornaceae
Cypripedium reginae	Showy Lady's-Slipper	Orchidaceae
Dasiphora fruticosa	Shrubby-Cinquefoil	Rosaceae
Drosera rotundifolia	Round-Leaved Sundew	Droseraceae
Equisetum arvense	Field Horsetail	Equisetaceae
Equisetum hyemale	Tall Scouring-Rush	Equisetaceae
Eriophorum virginicum	Tawny Cottonsedge	Cyperaceae
Geum rivale	Water Avens	Rosaceae
Hypopitys monotropa	Pine-sap	Ericaceae
Impatiens capensis	Spotted Touch-Me-Not	Balsaminaceae
Larix laricina	American Larch	Pinaceae
Maianthemum trifolium	Three-Leaved False Solomon's-Seal	Ruscaceae
Menyanthes trifoliata	Buck-Bean	Menyanthaceae
Micranthes pensylvanica	Swamp Small-Flowered-Saxifrage	Saxifragaceae
Myrica gale	Sweetgale	Myricaceae
Onoclea sensibilis	Sensitive Fern	Onocleaceae

Osmunda regalis	Royal Fern	Osmundaceae
Osmundastrum cinnamomeum	Cinnamon Fern	Osmundaceae
Packera schweinitziana	Robbins' ragwort	Asteraceae
Picea rubens	Red Spruce	Pinaceae
Pinus strobus	Eastern White Pine	Pinaceae
Platanthera dilatata	White Northern Bog-Orchid	Orchidaceae
Prenanthes sp.	#N/A	Asteraceae
Rhamnus alnifolia	Alder-Leaved Buckthorn	Rhamnaceae
Ribes cynosbati	Eastern Prickly Gooseberry	Grossulariaceae
Ribes triste	Swamp Red Currant	Grossulariaceae
Rubus pubescens	Dwarf Raspberry	Rosaceae
Salix eriocephala	Heart-Leaved Willow	Salicaceae
Scirpus cyperinus	Common Woolsedge	Cyperaceae
Symphyotrichum puniceum	Purple-Stemmed American-Aster	Asteraceae
Tiarella cordifolia	Foam-Flower	Saxifragaceae
Toxicodendron radicans	Poison-Ivy	Anacardiaceae
Typha latifolia	Broad-Leaved Cat-Tail	Typhaceae
Vaccinium oxycoccos	Small Cranberry	Ericaceae
Veratrum viride	American False Hellebore	Melanthiaceae
Vitis riparia	River Grape	Vitaceae

Union Village Dam Outcrop, Thetford

Aquilegia canadensis	Red Columbine	Ranunculaceae
Daucus carota	Wild Carrot	Apiaceae
Galium sp.	Bedstraw	Rubiaceae
Micranthes virginiensis	Early Small-Flowered-Saxifrage	Saxifragaceae
Pilosella caespitosa	Yellow Hawkweed	Asteraceae
Poa compressa	Flat-Stemmed Blue Grass	Poaceae
Silene vulgaris	Bladder Campion	Caryophyllaceae
Solidago juncea	Early Goldenrod	Asteraceae
Trifolium repens	White Clover	Fabaceae
Viola sp.	Violet	Violaceae
Woodsia ilvensis	Rusty Cliff Fern	Woodsiaceae
Woodsia obtusa	Blunt-Lobed Cliff Fern	Woodsiaceae

Thank you Ohana !

We very much appreciated the hospitality shown to us by Ohana's resident Naturalist, Martin Brazeau, who joined us on our morning walks; and to Bill Shepherd who gave us nice recommendations about where to bird. Ted Levin gratiously welcomed us to his Coyote Hollow woods and swamp as well. Special thanks also to Vanessa Riegler and all the Staff at Ohana.. The Bird List follows. - DB

BIRD NOTES by Connie Youngstrom

Camp Ohana offered great birding right on the grounds. The tall white pines were chock full of singing Northern Parula and Pine Warblers. A perfect opportunity presented itself when Dark-eyed Juncos, Chipping Sparrows and Pine Warblers were heard in the same place for a nice comparison. At Zebedee wetland, both a Red-shouldered and Broad-winged Hawk were calling which proved challenging in identifying the two species. Other highlights at this location included a Black-billed Cuckoo and a Virginia Rail.

Our early morning bird walks were joyously full of birdsong and nesting activity. The numbers of warblers were impressive on both mornings- Northern Waterthrush, Blackburnians, Ovenbirds, American Redstarts, just to name a few.

Nesting activity was also in full swing at Dewey's Pond: a Common Merganser with five young, a Mallard with seven young, Song Sparrow carrying food, Black-capped Chickadees at a nest cavity, Eastern Kingbird nest with young, a Warbling Vireo feeding young and a Tree Swallow feeding young. Along with the delights of the Showy Ladies Slippers, Eshqua Bog offered some good birding as well. A Yellow-bellied Sapsucker nest with very noisy young and a Wood Thrush nest were spotted along the way.

BIRD LIST – 2013

Common Loon
Great Blue Heron
Turkey Vulture
Canada Goose
Mallard
Ring-necked Duck
Hooded Merganser
Common Merganser
Red-shouldered hawk
Broad-winged hawk
Red-tailed Hawk
Ruffed grouse
Wild Turkey
Virginia Rail
Killdeer
Spotted Sandpiper
American Woodcock
Mourning Dove
Black-billed Cuckoo
Ruby-throated Hummingbird
Belted kingfisher
Yellow-bellied Sapsucker
Hairy Woodpecker
Northern Flicker
Pileated Woodpecker
Eastern Wood-Pewee
Alder Flycatcher
Willow Flycatcher
Least flycatcher
Eastern Phoebe
Great Crested Flycatcher
Eastern Kingbird
Blue-headed Vireo
Warbling vireo
Red-eyed Vireo
Blue Jay
American Crow
Common Raven
Tree Swallow
Bank Swallow
Barn Swallow
Black-capped Chickadee
Tufted Titmouse
Red-breasted Nuthatch
White-breasted Titmouse
Brown Creeper
Winter Wren
Golden-crowned Kinglet
Eastern Bluebird
Veery
Hermit Thrush
Wood Thrush
American Robin
Grey Catbird
European Starling
Cedar Waxwing
Nashville Warbler
Northern Parula
Yellow Warbler
Chestnut-sided Warbler
Black-throated Blue Warbler
Yellow-rumped Warbler
Black-throated Green Warbler
Blackburian Warbler
Pine Warbler
Prairie Warbler
Black-and-white Warbler
American Redstart
Ovenbird
Northern Waterthrush
Common Yellowthroat
Scarlet Tanager
Chipping Sparrow
Song Sparrow
Swamp Sparrow
White-throated Sparrow
Dark-eyed Junco
Northern Cardinal
Rose-breasted Grosbeak
Indigo Bunting
Red-winged Blackbird
Common Grackle
Brown-headed Cowbird
Baltimore Oriole
Purple Finch
American Goldfinch

86 species