

VERMONT BOTANICAL & BIRD CLUB NEWSLETTER

MARCH 2006

2006 ANNUAL MEETING ANNOUNCEMENT

The 111th Annual Meeting of the Vermont Botanical and Bird Club will be held from Thursday at 4:00 PM, June 8 through Sunday at 9:00 AM, June 11, 2006 at Vermont Technical College in Randolph, Vermont. The Club last visited this region and stayed at Vermont Technical College in 1983.

We are looking forward to visiting this central region in Vermont which includes the Green Mountain National Forest to the west and the central valley of Vermont to the Connecticut River to the east. We will visit interesting and unique botanical and birding sites.

2005 MEETING HIGHLIGHTS

The 110th Annual Meeting of the Vermont Botanical and Bird Club began at 4:00 PM, Thursday, June 9 at Quimby Country in Averill, Vermont and ended at 9:00 AM on Sunday, June 12, 2005.

Located in Vermont's Northeast Kingdom (in the furthest northern and almost the furthest eastern part of the Kingdom), Quimby Country is a world of its own. Visiting the lodge and cabins that nestle along the shoreline of Forest Lake is like stepping back into the nineteenth century. Each cabin is named after a distinct fly fishing lure and is as unique as its namesake. Trails and woods roads through spruce-fir-northern hardwood forest surrounding several lakes make botanizing and birding especially enjoyable.



Quimby Country on Forest Lake, Averill
Photo: Mike MacCaskey, June, 2005

Indeed, Quimby Country and the Vermont Botanical and Bird Club both hail to the nineteenth century for their origins. Quimby Country is the oldest continuously operating fishing lodge in the country and originated in 1893. The Vermont Botanical Club originated in 1895 and the Vermont Bird Club in 1902.

On Thursday evening, President Peter Hope introduced the two scholarship students: Tristan Hardy and Frederick McKnight who are both majoring in environmental science at Lyndon State College and are students of Dr. David Conant. [See more about the two students under Henry Potter Scholarship Students 2005 later in this Newsletter.]

The Thursday evening program was presented by Rosalind Renfrew of the Conservation Biology Department at the Vermont Institute of Natural Science titled "Wintering Bobolinks: Unraveling the Mysteries". Rosalind is Director of the Vermont Breeding Bird Atlas 2003 – 2007.

Friday morning's bird walk explored the woods and the shrubby edge along the access road that circles part way around Forest Lake.

The two field trips then organized for each day. The North Trip (led by Kathy Doyle and Debbie Benjamin on Friday and Annie Reed on Saturday) explored several interesting habitats at Quimby Country: Around-a-lake Trail, a wood's road from Quimby's to the Big Rocks at Great Averill Lake and the Sandy Beach Trail to a sand beach community on the south end of Great Averill. Then, a short drive south on the back road to Canaan carried us to a beaver pond surrounded by boreal woods. The South Trip (led by Peter Hope on Friday and Arthur Gilman on Saturday) traveled to Moose Bog which is in Wenlock Wildlife Management Area, Ferdinand and Black Turn Brook State Forest in Norton. On Saturday the South group stopped at the airport on Rt. 105 east of Island Pond. [See Field Trip Notes and Plant and Bird Lists]

On Friday evening, Jim Graves, Associate Professor of Biology and Environmental Studies at Green Mountain College presented "Plant Conservation at Home: Landscaping and Land Management to Celebrate Local Flora".

Saturday morning's bird walk continued to explore the shores of Forest Lake. Saturday evening's Annual Business Meeting was held in the Nevin Brugger Clubhouse. [See Minutes]

On Sunday morning at breakfast, Club members gathered around Peter Hope's table and presented him with a card and special gift to thank him for his years of service to the Club as President for the past 19 years and trip leader and logistics manager for longer than that.

EVENING PROGRAMS

THURSDAY, JUNE 9:

VERMONT BREEDING BIRD ATLAS

WINTERING BOBOLINKS: UNRAVELING THE MYSTERIES

Rosalind Renfrew, Conservation Biologist and Director of the Vermont Breeding Atlas, presented her discoveries about wintering bobolinks through discussion, slides and video on the wintering grounds 6000 miles away in South America. Rosalind did her undergraduate work at UVM and received her Masters and PhD from the University of Wisconsin in Madison. She studied the influence of landscape characteristics on grassland birds and nest predators in pastures which combined her interests in applied avian research and agricultural issues. She said that she was very glad to be giving this presentation at Quimby Country. Years ago, she participated in monitoring loons and spent a lot of time visiting lakes and ponds of the Northeast Kingdom (including Great Averill and Little Averill Lakes and Forest Lake).

Before her main talk, she described the Vermont Breeding Bird Atlas project which is now in its third year of the five years for the total survey. The first Vermont Breeding Bird Atlas was published 30 years ago. Presently, 330 volunteer birders around the state are gathering evidence of breeding bird activity for the 2nd edition of the Atlas. Volunteers are surveying the blocks that were randomly chosen 35 years ago. The results will definitely show trends in bird populations over time. Each block is 1/6 of a 7.5' USGS topo map. Quimby Country happens to be in the Averill priority block, so any birds and evidence of breeding seen at this year's meeting will become part of the atlas. A second set of randomly chosen blocks is being covered in the second edition with more birders on board. Some preliminary observations are that grassland birds

appear to be declining, including bobolinks and meadowlarks.

Bobolinks spend a small portion of each year on the breeding grounds in their northern ranges. They build their nests on the ground in grassland habitats: farm fields, hayfields and meadows. Nests with young are vulnerable to mowing during the time that eggs and nestlings are developing. Little is known about the rest of the year in the life of a bobolink. They are granivorous in winter and are known to commute 12,000 miles roundtrip to central and southern South America and back in the course of a year.

Rosalind traveled to Paraguay and Bolivia during winter 2005 in search of bobolinks where people hadn't looked for them before. What she discovered begins to fill in some of the gaps in knowledge but also leads to intriguing questions of agricultural practices, demographic migrations and politics. Rice cultivation has increased in Bolivia over the past five decades, especially by Japanese-owned agribusinesses. Bobolinks love to eat rice when it is in the soft milk stage just before it hardens and becomes ready for harvest for human consumption. Short videos showed flocks of many hundreds of birds in a field; and they roost in colonies up to 10,000 birds. Local farmers refer to bobolinks as the 'rice bird' and many consider them to be harmful to their crops.

Rice farmers use an insecticide called monocrotophase to control pests. The pesticide is short lived in the environment but very toxic and causes nerve damage. In Argentina, the use of monocrotophase was eliminated by government action after a three year international campaign with popular support from farmers and local people after they were informed of the damage that this insecticide was doing to the Swainson's hawk and to farm workers and the local community. It is hoped that a similar course of enlightenment could occur in other South American countries. Unfortunately, in Bolivia,

instability and distrust remain as impediments to good government intervention.

Closer to home, in Vermont, the timing of mowing hay can affect the success or failure of bobolinks during their short breeding season. At Shelburne Farms, researchers are studying the possibility of staggered mowing schedules to give the farmer good quality high protein hay from an early mowing in one area and to allow other areas to be left for later mowing to ensure greater nesting success for bobolinks. If hay is not needed for feed or economic purposes, delayed mowing until August 1 will ensure that all the bobolink young that escaped predation have a good chance of fledging. Bobolinks typically have one nest/year and they leave shortly after the young have fledged. A mowing on July 15 will allow many young birds to fledge; a mowing on July 4 will seriously impact breeding bobolinks by exposing and disrupting nests with young.

FRIDAY, JUNE 10:

**PLANT CONSERVATION AT HOME:
LANDSCAPING AND LAND
MANAGEMENT TO CELEBRATE LOCAL
FLORA**

Jim Graves, Associate Professor of Biology and Environmental Studies at Green Mountain College, described the sabbatical journey that he and his wife, Kathy Doyle, and their two sons took in 2003-2004 to visit colleges, botanical gardens, and research stations from Maine to Florida to study models that show how landowners can integrate native plant conservation with other management goals.

In a search for the measure of a great garden in the 21st century, the nine recommendations from "International Agenda for Botanic Gardens in Conservation", published in 2000 by Botanic Gardens International, United Kingdom were reviewed and discussed as we traveled:

- 1) inventory and monitoring
- 2) natural areas management
- 3) control of invasive species
- 4) plant propagation
- 5) restoration and inter situ management
- 6) gardens
- 7) education
- 8) research
- 9) regional and global planning and policy

Many historic gardens, such as the Arnold Arboretum in Jamaica Plain, MA, have collections of groups of plants from around the world that serve as centers of research in taxonomy, propagation and cultivation of exotic and native plants, as well as places of great beauty for the visiting public.

The twentieth century experienced some catastrophes from the unintended consequences of introducing exotic species to a new world free of traditional predators. The American chestnut, a major tree species of the eastern forests much prized for its nuts, its beauty and its hardwood, has virtually disappeared due to an invasive fungus that persists to this day.

Vermont has its share of invasive species of plants that have made serious intrusions into a variety of habitats where natural predators do not keep them in check. The result can be an overwhelming displacement of native species which interrupts the natural interaction of species within a habitat. Purple loosestrife, *Lythrum salicaria*, aggressively displaces cattails in wetlands. Garlic mustard, *Alliaria petiolata*, is consumed by 70 insects in Eurasia but only 2 species in Vermont. Oriental bittersweet, *Celastrus orbiculatus*, has recently entered the state. [The Club saw this invasive species along the Connecticut River floodplain forest in Vernon during its 2004 meeting.]

John Hart, Director of the Ecological Garden at the University of New Hampshire in Durham, NH, summarized his philosophy: “We have a

sense of place that we want to preserve in our garden”. Under his guidance, the usual campus plantings of rhododendrons, azaleas and yews have been complemented by the addition of 30 species of native shrubs and plants. Jim and Kathy have engaged students at Green Mountain College, VT to inventory the native plants there and to create a buffer zone of native plant material along the Poultney River.

Connecticut College Arboretum in New London, CT has developed an educational program that looks at the assumptions of established campus plantings and searches for ways to incorporate and protect native plantings. Warren Wilson College in North Carolina actively involves students in the study of the propagation of native grass species. The South Carolina Botanical Gardens in Clemson, SC presents early pioneer history and botanical history of the region. The Atlanta Botanical Garden in Atlanta, GA is known for its expertise in plant propagation of pitcher plants and sundews for use in bog restoration. The Marie Selby Botanical Gardens in Sarasota, FL is known for its collection of orchids from all over the world and its educational outreach program in conservation.

His colorful and informative presentation concluded with a sunset image and a vision for the future: a nursery in every county in Vermont that would educate the public, specialize in the propagation of plants of that region and promote the appreciation and conservation of the legacy of natural communities through gardening.

The New England Wild Flower Society in Framingham MA publishes a list of invasive species and includes on its website substitute plants for use in the garden and methods for removing existing invasive plants at: www.newenglandwildflower.org . New England Wetland Plants in Amherst, MA is a private company that is a wholesale source of wetland plants at: www.newp.com .

SATURDAY, JUNE 11, 2005

**ANNUAL BUSINESS MEETING
MINUTES**

The Saturday Annual Business Meeting of the Vermont Botanical and Bird Club convened at 7:30 PM in the Nevin Brugger Clubhouse.

1. Secretary's Report. Debbie Benjamin, Secretary, gave some highlights of the 2004 meeting at Dalem's Chalet in W. Brattleboro. She reported that the cost of a Newsletter for printing and mailing is about \$2.00 per copy. At the present time there are about 90 memberships to the Vermont Botanical and Bird Club. This represents more than that number of individuals. The last time a Bulletin was produced (in 2002) it cost \$400.00 to print 200 copies. Members approved the Secretary's Report.

2. Treasurer's Report. Charlotte Bill, Treasurer, gave a two-page summary of the Club three accounts, the Scholarship Funds and a summary of the Annual Meeting at Dalem's Chalet as of June 11, 2005.

Club Accounts:

Certificate of Deposit

Merchants Bank, Enosburg, VT

| | |
|---------------|------------|
| Maturity date | 6/9/07 |
| Balance | \$5,009.26 |

Green Century Equity Fund

Green Century Funds, Indianapolis, IN

| | |
|---------------------------------|-------------|
| 6/01/04 Net Asset Value | \$11,603.51 |
| (622.840 shares @\$18.63/share) | |
| 6/08/05 Net Asset Value | \$11,997.49 |
| (626.174 shares @\$19.16/share) | |

Checking Account

Chittenden Bank, VT

| | |
|-------------------------|------------|
| 0/11/05 Account Balance | \$7,596.31 |
|-------------------------|------------|

Scholarship Funds:

Current Year/Rollover Scholarship Money

| | |
|-------------------------------|------------|
| 6/05/04 Balance | \$1,735.29 |
| Scholarship expense 2004 mtg | 565.00 |
| Donations to date 2005 appeal | 663.00 |

| | |
|-------------------------------------|------------|
| 6/11/05 Balance in Checking Account | \$1,833.29 |
|-------------------------------------|------------|

Scholarship Endowment Fund Contributions

| | |
|-------------------------------|------------|
| 6/05/04 Balance | \$4,782.50 |
| Donations to date 2005 appeal | 350.00 |

| | |
|-----------------------------------|------------|
| Total Contributions as of 6/11/05 | \$5,132.50 |
|-----------------------------------|------------|

2004 Meeting:

Revenue:

| | |
|-------------------------------|----------|
| Payment by members | 9,299.50 |
| Scholarship Fund (2 students) | 565.00 |

| | |
|-------|-------------------|
| Total | <u>\$9,864.50</u> |
|-------|-------------------|

Expenses:

| | |
|------------------------|----------|
| Room and Board | 8,169.53 |
| Speakers | 197.00 |
| Field Trip Leaders | 200.00 |
| Insurance | 400.00 |
| Scouting Mileage | 167.63 |
| Other Scouting Expense | 76.24 |
| Office Supplies | 208.79 |

| | |
|-------|-------------------|
| Total | <u>\$9,419.19</u> |
|-------|-------------------|

Net Balance:

| | |
|--------------------------|----------|
| Net Balance 2004 Meeting | \$445.31 |
|--------------------------|----------|

Marty Hanson moved and Catherine Sells seconded that the Treasurer's Report be approved. It was unanimously approved.

3. Scholarship Report. Dorothy Allard said that she invited faculty at Vermont colleges to submit recommendations of students to attend the meeting. She also placed a notice in the Vermont

Science Teacher's Association Newsletter and sent letters to science teachers at 38 Vermont high schools. In the case of high school students, a scholarship would include full meeting expenses for the student and up to ½ expenses for a teacher/parent. Three qualified recommendations from Lyndon State College were received. Of those, two students were able to attend this year's meeting. [See Henry Potter Scholarship Students in this Newsletter.]

4. Club Brochure. Debbie Benjamin circulated enlarged copies of the artwork by Betsy Brigham for the cover of the revised and updated Club brochure. Of the \$750.00 that was approved at the 2003 meeting for artwork, design and layout and printing, \$300.00 has been spent for artwork and \$50.00 for preliminary design and layout.

5. Vermont Botanical and Bird Club Website.

Fritz Garrison said that the website domain was established in January 2005 and that he started posting pages in February and March. He said that pages include a history of the Club, a picture of the Executive Committee, recent Newsletters in .pdf and .html formats, a list of the Club's Bulletins, annual meeting notice and registration form and information about scholarships. He asked for ideas from members about what else they would like to see posted. Suggestions included: Birds in the News, Plants in the News, a members' gallery of photos. He said that the space costs about \$12.00/month and has 400 megs of space. The website address is: www.vtbb.org . Members thanked Fritz for his excellent work in designing and launching the website.

6. Club Bulletin. Peter Hope said that he will edit the next issue of the Club's Bulletin and has sent out a call for articles. The last two Bulletins (2000 and 2002) were edited by Arthur Gilman, who said that the Bulletins are a mine of information. The ideal Bulletin contains long and short articles about Vermont botany, birds and related subjects of a contemporary or historical

nature. Members may submit material to Peter at: phope@smcvt.edu .

7. Nominating Committee. Michael St. John read the slate of Officers:

| | |
|-----------------------|-------------------|
| Secretary | no candidate * |
| Treasurer | Charlotte Bill |
| Vice-President Birds | Connie Youngstrom |
| Vice-President Plants | Dorothy Allard |
| President | Deborah Benjamin |

Roy Whitmore moved and Catherine Sells seconded that the slate of Officers be approved. The slate of Officers was unanimously approved.

Peter Hope said that, according to the Bylaws, the Club Officers may appoint someone to fill a vacant office in the interim.

* Following the Annual Business Meeting, the Officers discussed filling the position of Secretary. On behalf of all of the Officers, President Deborah Benjamin invited Lynn Ocone to accept the position of Secretary for the interim term from June 2005 – June 2006. Lynn graciously accepted the position.

8. Field Trip Report. Birds.

Connie Youngstrom read highlights of the list of 83 species seen at this year's meeting. The bird emblematic of the lakes region of the Northeast Kingdom, Common Loon, was present at Forest Lake and Great Averill Lake. Overhead an Osprey sailed by; and above the sand beach a pair of Broad-winged Hawks harassed a Bald Eagle. A pair of Canada Geese at the Beaver Pond and Boreal Woods off the back road to Canaan (south of Quimby Country) swam quietly with 5 fuzzy goslings. American Black Duck flushed from the same relative area at Moose Bog, a sign that there was probably a carefully concealed nest in the bog mat, as four turkey vultures perched nearby in a dead tree. Ruby-throated Hummingbirds visited feeders on

each cabin porch and raced throughout the flower gardens. Black-backed Woodpecker was seen by everybody on Friday at Moose Bog and heard on Saturday in the same area. Saturday's group enjoyed Boreal Chickadee and both kinglets. Warblers were abundant everywhere.

9. Field Trip Report. Plants.

Dorothy Allard said that many sites revealed a diversity of habitats within some very special ecosystems. Generally, as one goes North species diversity goes down. However, one group of plants becomes more diverse as one goes North and that is the bryophytes. At Moose Bog, several Sphagnum moss species presented multiple colors, textures and patterns. On a short stop at the airport on Rt. 105, one plant of *Botrichium simplex*, simple-leaved grapefern, was seen. Close to Forest Lake, a mossy wet area sported numbers of *Corallorhiza trifida*, early coralroot and *Listera cordata*, heart-leaved twayblade. The champion of orchids was the white form of the familiar pink ladyslipper, *Cypripedium acaule forma albiflorum*. Two special birch tree species were seen: heart-leaved paper birch on Around-a-lake Trail and blue birch at Black Turn State Forest.

Roberta Whitmore moved and Lynne Arnold seconded that the business meeting adjourn.

SLIDES BY MEMBERS SATURDAY EVENING

Following the Annual Business Meeting, members enjoyed a host of visual feasts and good stories. Each evening the piping song of gray treefrog was heard just outside on the porch. On Saturday evening, the frog sounded like it was indoors.

1. Tig Arnold showed images from field trips yesterday and today, including several of boreal plants: pink ladyslipper (white form), painted trillium, Rhodora, Labrador tea, bog laurel,

cotton grass, and a tamarack needle cluster with a bead of water. The stone marker a short way into the woods at Black Turn State Forest read: "Earth People's Park, 1970 – 1994 . Free Land for Free People." Two orchids species in a wet area at the inlet of Forest Lake abound: early coralroot and heart-leaved twayblade. Moose tracks settled into Moose Bog. Tig has been working on scanning the Club's Bulletins to be displayed on the website. He showed a scanned image of the Vermont Bird Club Bulletin of 1908 including the table of contents. He encouraged people to write for the Bulletin.

2. Fred McKnight showed images of a trip to Mt. Pisgah on April 29, 2005. He showed some of the special plants that draw people to the area: Robbin's milk vetch, alpine sweet vetch, purple mountain saxifrage and smooth woodsia.

3. Fritz Garrison showed Black Gum Swamp from last year's meeting. From this year's meeting, we saw pictures of people and places: members birding, the chairs on the porch at Quimby's first with no one there and then with members after a day in the field. He showed some abstract views: driftwood and moss, bleached dead trees at Moose Bog where the turkey vultures perched, cement blocks with moss patiently growing over their surface, reclaiming them to nature.

4. Roger Bradley chose as a theme wetland plants from his collection of pictures taken over many years. We saw an array of the colors and shapes that enable plants to live in a wet environment: marsh marigold, golden club, pitcher plants, pickerel weed, bladderwort, cardinal flower, small round-leaved orchid, curly grass fern. For a little diversion he showed the world's largest flower: titan arum. A chance encounter with a saw-whet owl that flew to the roof caused Roger to run into the house, grab the camera, make a quick guess on exposure and capture a great picture. A bluebird nest box gave a flying squirrel a nice place to roost.

5. Peter Hope captured Roy Pilcher setting up to take a picture of a butterfly at last year's meeting. Snow on his deck in 2003 reached 25 1/2" on the picnic table. A barred owl visited his bird feeding station 2 winters ago. A trip to Isle Bizard, Quebec last winter brought many birders out for a rare view of great gray owl. A trip to the mountains found alpine woodsia on Mt. Mansfield and bearberry willow in the White Mountains. An early visit to Gleason Brook in Jonesville for spring wildflowers revealed a rosy form of squirrel corn with a nice fragrance. Reflections on water brought the evening's visual delights to a close

As frogs chirped outside, members returned to their rooms immersed in memories of this and former meetings.

2005 HENRY POTTER SCHOLARSHIP STUDENTS

Two very qualified scholarship students joined us this year.

1. Frederick McKnight is a senior at Lyndon State College majoring in Environmental Studies with a minor in Geology. One project that he worked on with Dr. David Conant was to develop a dichotomous key and to outline a software driven interactive key to identify willows, *Salix*, in the winter condition. His research area was on sites along the Passumpsic River. He returned to academia after working for many years as an engineer for a firm that he helped form that is dedicated to providing safe, healthy and environmentally sustainable building designs and indoor environments. After graduating in 2005, he plans on continuing at the graduate level.

2. Tristan Hardy is a student in Environmental Science at Lyndon State College. He entered the program after completing a Bachelor's Degree in Computer Engineering at Vermont Technical

College. He has worked with Dr. David Conant at the LSC Herbarium. "Rooted strongly within me was a closeness to nature that had grown in my childhood as I would spend countless hours within the forests and groves near my house. ... I chose Environmental Science because all aspects of nature and the environment are of great interest to me, everything from Botany to Geology."

2005 FIELD TRIPS

SOUTH:

1. Black Turn State Park, Norton

Vermont's northern most state park is 600 acres along the Black Turn Brook. It includes spruce-fir-northern hardwood forest typical of the Northeast Highlands. A short descent drops down into a beaver pond area. It is the former home of The People's Park.

2. Moose Bog, Ferdinand

Moose Bog is a boreal dwarf shrub bog with a rich diversity of plant and animal species typical of the spruce-tamarack bog. It includes a 15-acre open bog mat of sphagnum moss hummocks, low heath shrubs, pitcher plants and stunted black spruce. The site is owned by the Vermont Fish and Wildlife Department.

6. Brighton Airport

A stop on Saturday for *Botrychium*.

NORTH:

This year's north trip occurred right out the door from Quimby Country which includes many interesting and diverse habitats.

3. Around-a-lake Trail (Forest Lake), Averill

This is a new trail that goes all the way around Forest Lake, a shallow acidic brownwater pond. Forest Lake is surrounded by spruce-fir-northern hardwood forest and has a natural shoreline of boreal shrubs – wild raisin and mountain holly. A wet, mossy area surrounds the major inlet to Forest Lake.

4. Boreal Woods and Beaver Pond, Averill

A short trip by car 2.6 miles south from Forest Lake Road on the back road to Canaan enters logging country where there is an access road to the right and a gate. To the right is a beaver pond with a boreal edge and many white pink ladyslippers. Downslope to the left is a larger beaver flowage.

5. Wood’s Road to Great Averill Lake and Sand Beach, Averill

The woods road leads to Great Averill Lake at Big Rocks where a lakeside community of shrubs grows up to and into the edge of the water. South on Sandy Beach Trail takes one to Great Averill Sand Beach, one of the larger examples (about 5 acres) of this natural community type in Vermont. The barrier sand beach is mostly bare white sand with scattered low shrubs and herbaceous plants.

2005 BIRD LIST

- | | | | |
|----|--------------------------|----|---------------------------|
| 1 | Common Loon | 14 | Barred Owl |
| 2 | Double-crested Cormorant | 15 | Rock Pigeon |
| 3 | Great Blue Heron | 16 | Chimney Swift |
| 4 | Turkey Vulture | 17 | Ruby-throated Hummingbird |
| 5 | Canada Goose | 18 | Belted Kingfisher |
| 6 | Wood Duck | 19 | Yellow-bellied Sapsucker |
| 7 | American Black Duck | 20 | Hairy Woodpecker |
| 8 | Mallard | 21 | Black-backed Woodpecker |
| 9 | Common Merganser | 22 | Northern Flicker |
| 10 | Osprey | 23 | Pileated Woodpecker |
| 11 | Bald Eagle | 24 | Olive-sided Flycatcher |
| 12 | Broad-winged Hawk | 25 | Yellow-bellied Flycatcher |
| 13 | American Kestrel | 26 | Alder Flycatcher |
| | | 27 | Least Flycatcher |
| | | 28 | Eastern Phoebe |
| | | 29 | Great Crested Flycatcher |
| | | 30 | Eastern Kingbird |
| | | 31 | Yellow-throated Vireo |
| | | 32 | Blue-headed Vireo |
| | | 33 | Red-eyed Vireo |
| | | 34 | Blue Jay |
| | | 35 | Common Raven |
| | | 36 | Tree Swallow |
| | | 37 | Cliff Swallow |
| | | 38 | American Crow |
| | | 39 | Black-capped Chickadee |
| | | 40 | Boreal Chickadee |
| | | 41 | Red-breasted Nuthatch |
| | | 42 | Brown Creeper |
| | | 43 | Winter Wren |
| | | 44 | Golden-crowned Kinglet |
| | | 45 | Ruby-crowned Kinglet |
| | | 46 | Veery |
| | | 47 | Swainson’s Thrush |
| | | 48 | Hermit Thrush |
| | | 49 | American Robin |
| | | 50 | Gray Catbird |
| | | 51 | Cedar Waxwing |
| | | 52 | European Starling |
| | | 53 | Nashville Warbler |
| | | 54 | Northern Parula |

- 55 Yellow Warbler
- 56 Chestnut-sided Warbler
- 57 Magnolia Warbler
- 58 Black-throated Blue Warbler
- 59 Yellow-rumped Warbler
- 60 Black-throated Green Warbler
- 61 Blackburnian Warbler
- 62 Pine Warbler
- 63 Black-and-white Warbler
- 64 American Redstart
- 65 Ovenbird
- 66 Northern Waterthrush
- 67 Mourning Warbler
- 68 Common Yellowthroat
- 69 Canada Warbler
- 70 Scarlet Tanager
- 71 Rose-breasted Grosbeak
- 72 Chipping Sparrow
- 73 Song Sparrow
- 74 Swamp Sparrow
- 75 White-throated Sparrow
- 76 Dark-eyed Junco
- 77 Red-winged Blackbird
- 78 Common Grackle
- 79 Baltimore Oriole
- 80 Purple Finch
- 81 Pine Siskin
- 82 American Goldfinch
- 83 Evening Grosbeak

Rufous-sided Towhee (possible)
 Cape May Warbler (possible)



Early morning bird walk along Forest Lake



Common Loon, regular summer resident at Forest Lake

[Photos: Mike MacCaskey, June 2005]

2005 PLANT LIST

Key:

- 1=Black Turn Brook State Forest, Norton
- 2=Moose Bog WMA, Ferdinand
- 3=Around-a-lake Trail, Forest Lake, Averill
- 4=Boreal Woods and Beaver Pond, Averill
- 5=Woods Road to Great Averill Lake Sand Beach
- 6=Brighton Airport

| COMMON | LATIN | SITE(S) |
|---|------------------------------------|-----------|
| <i>Abies balsamea</i> | Balsam Fir | 1,2,3,4,5 |
| <i>Acer pensylvanicum</i> | Moose or Striped Maple | 2 |
| <i>Acer rubrum</i> | Red Maple | 1,4 |
| <i>Acer saccharum</i> | Sugar Maple | 3,5 |
| <i>Acer spicatum</i> | Mountain Maple | 2,3,5 |
| <i>Alnus incana</i> | Speckled Alder | 2,3 |
| <i>Andromeda glaucophylla</i> | Bog Rosemary | 2 |
| <i>Aralia nudicaulis</i> | Wild Sarsaparilla | 1,2,3,4,5 |
| <i>Arctium</i> sp. | Burdock | 1 |
| <i>Aronia melanocarpa</i> | Black Chokeberry | 2 |
| <i>Athyrium filix-foemina</i> | Lady Fern | 3 |
| <i>Bazzania trilobata</i> | Three-lobed Bazzania | 2,3,5 |
| | Liverwort | |
| <i>Betula allegheniensis</i> | Yellow Birch | 1,2,3,5 |
| <i>Betula x caerulea-grandis</i> | Blue Birch | 1 |
| <i>Betula populifolia</i> | Gray Birch | 1,2,5 |
| <i>Botrychium simplex</i> | Least Grapefern | 6 |
| <i>Calamagrostis canadensis</i> | Common Bluejoint Grass | 1 |
| <i>Calla palustris</i> | Wild Calla | 2,3 |
| <i>Calliergon cordifolium</i> | Marsh Spoon Moss | 3 |
| <i>Calliergon stramineum</i> | Pale Spoon Moss | 3 |
| <i>Caltha palustris</i> | Marsh Marigold | 1 |
| <i>Carex atlantica</i> | Atlantic Sedge | 5 |
| <i>Carex canescens</i> | Hoary Sedge | 2 |
| <i>Carex exilis</i> | Meagre Sedge | 2 |
| <i>Carex gynandra</i> | Gynandrous Sedge | 4 |
| <i>Carex lasiocarpa</i> | Sluggish-fruited Sedge | 2 |
| <i>Carex laxiflora</i> | Loosely-Flowered Sedge | 3 |
| <i>Carex lenticularis</i> | Shore Sedge | 5 |
| <i>Carex oligosperma</i> | Few-fruited Sedge | 2 |
| <i>Carex vesicaria</i> | Bladder Sedge | 2 |
| <i>Chamaedaphne calyculata</i> | Leatherleaf | 2 |
| <i>Chrysosplenium americanum</i> | Golden Saxifrage | 3 |
| <i>Cirsium</i> sp. | Thistle | 1 |
| <i>Climacium dendroides</i> | Common Tree Moss | 2 |
| <i>Clintonia borealis</i> | Bluebead Lily | 1,2,3,4,5 |
| <i>Coptis trifolia</i> | Goldthread | 1,2,3,4,5 |
| <i>Corallorhiza trifida</i> | Early Coral-root | 3 |
| <i>Cornus canadensis</i> | Bunchberry | 1,3,4,5 |
| <i>Cornus sericea</i> | Silky Dogwood | 1,3 |
| <i>Corylus cornuta</i> | Beaked Hazelnut | 1,2 |
| <i>Cypripedium acaule</i> | Pink Lady's Slipper | 2,3,5 |
| <i>Cypripedium acaule</i> forma albiflorum | Pink Lady's Slipper, white form | 4 |

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| <i>Danthonia compressa</i> | Northern Oatgrass | 2 |
| <i>Dicranum flagellare</i> | Flagella Broom Moss | 5 |
| <i>Dicranum fulvum</i> | Blackish Broom Moss | 3 |
| <i>Dicranum montanum</i> | Mountain Broom Moss | 2 |
| <i>Dicranum ontariense</i> | Taiga Broom Moss | 2 |
| <i>Dicranum polysetum</i> | Wavy Broom Moss | 1,2,3 |
| <i>Dicranum scoparium</i> | Common Broom Moss | 3 |
| <i>Diervilla lonicera</i> | Bush Honeysuckle | 2 |
| <i>Diphasiastrum sitchense</i> | Sitka Clubmoss | 2 |
| <i>Drosera rotundifolia</i> | Round-leaved Sundew | 3 |
| <i>Dryopteris campyloptera</i> | Mountain Wood Fern | 3,5 |
| <i>Dryopteris cristata</i> | Crested Wood Fern | 2 |
| <i>Dryopteris intermedia</i> | Intermediate Wood Fern | 1,3 |
| <i>Dryopteris marginalis</i> | Marginal Wood Fern | 3,5 |
| <i>Equisetum fluviatile</i> | River Horsetail | 5 |
| <i>Equisetum sylvaticum</i> | Woodland Horsetail | 1,3 |
| <i>Eriophorum vaginatum</i> var. <i>spissum</i> | Hare's Tail | 2 |
| <i>Erythronium americanum</i> | Trout Lily, Dogtooth Violet | 1,3 |
| <i>Fagus grandifolia</i> | American Beech | 2,3 |
| <i>Fragaria virginiana</i> | Wild Strawberry | 1,4 |
| <i>Fraxinus nigra</i> | Black Ash | 3 |
| <i>Frullania oakesiana</i> | Oakes's Frullania Liverwort | 3 |
| <i>Gaultheria hispidula</i> | Creeping Snowberry | 2,3,4,5 |
| <i>Gaultheria procumbens</i> | Wintergreen | 2 |
| <i>Gymnocarpium dryopteris</i> | Oak Fern | 3 |
| <i>Houstonia caerulea</i> | Bluets | 2 |
| <i>Huperzia lucidula</i> | Shining Clubmoss | 3 |
| <i>Hylocomiastrum umbratum</i> | Shady Rock Feather Moss | 3 |
| <i>Hylocomium splendens</i> | Stairstep Moss | 1,2,3 |
| <i>Hypnum pallescens</i> | Stump Pigtail Moss | 3 |
| <i>Ilex verticillata</i> | Winterberry Holly | 1 |
| <i>Impatiens</i> sp. | Jumpseed | 1 |
| <i>Iris versicolor</i> | Blue Flag | 3,5 |
| <i>Jamesoniella autumnalis</i> | Autumn Round-leaf Liverwort | 3,4 |
| <i>Juglans cinerea</i> | Butternut | 5 |
| <i>Juncus effusus</i> | Candle Rush | 4 |
| <i>Juncus</i> sp. | Rush | 1 |
| <i>Kalmia angustifolia</i> | Sheep Laurel | 2,5 |
| <i>Kalmia polifolia</i> | Bog Laurel | 2 |
| <i>Larix laricina</i> | Larch, Tamarack | 1 |
| <i>Ledum groenlandicum</i> | Labrador Tea | 2,5 |
| <i>Leucobryum glaucum</i> | Large White Cushion Moss | 2,5 |
| <i>Leucodon brachypus</i> var. <i>andrewsianus</i> | Squirreltail Moss | 4 |

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| <i>Linnaea borealis</i> | Twinflower | 2,3 |
| <i>Listera cordata</i> | Heartleaf Twayblade | 3 |
| <i>Lobaria pulmonaria</i> | Lichen | 3 |
| <i>Lonicera canadensis</i> | Canada Honeysuckle | 1,3 |
| <i>Lophozia bicrenata</i> | Path Liverwort | 2 |
| <i>Lycopodium clavatum</i> | Staghorn Clubmoss | 1,2 |
| <i>Lycopodium dendroideum</i> | Prickly Tree Clubmoss | 2 |
| <i>Lycopodium tristachyum</i> | Blue Groundcedar | 2 |
| <i>Maianthemum canadense</i> | Canada Mayflower | 1,2,3,4,5 |
| <i>Matteucia struthiopteris</i> | Ostrich Fern | 3 |
| <i>Mitchella repens</i> | Partridgeberry | 3 |
| <i>Monotropa uniflora</i> | Indian Pipe | 2 |
| <i>Mylia anomala</i> | Bog Mylia | 2 |
| <i>Myrica gale</i> | Sweet Gale | 5 |
| <i>Nemophanthus mucronata</i> | Mountain Holly | 2 |
| <i>Onoclea sensibilis</i> | Sensitive Fern | 1,3,4 |
| <i>Osmunda claytoniana</i> | Interrupted Fern | 1,3 |
| <i>Osmunda regalis</i> | Royal Fern | 5 |
| <i>Oxalis acetosella</i> | Common Wood-sorrel | 1,3,5 |
| <i>Phegopteris connectilis</i> | Narrow Beech Fern | 3 |
| <i>Philonotis fontana</i> var. <i>caespitosa</i> | Tufted Apple Moss | 1 |
| <i>Physcomitrium pyriforme</i> | Urn Moss | 1 |
| <i>Picea glauca</i> | White Spruce | 1 |
| <i>Picea rubens</i> | Red Spruce | 2,4,5 |
| <i>Pinus strobus</i> | White Pine | 2 |
| <i>Plagiochila porelloides</i> | Drab Tongue Liverwort | 3 |
| <i>Plagiomnium medium</i> | Middle Mnium Moss | 3 |
| <i>Pleurozium schreberi</i> | Big Red Stem Moss | 1,2 |
| <i>Polygonatum pubescens</i> | Small Solomon's Seal | 3 |
| <i>Polytrichum juniperinum</i> | Juniper Haircap Moss | 2 |
| <i>Polytrichum piliferum</i> | Awnead Haircap Moss | 2 |
| <i>Populus balsamifera</i> | Balsam Poplar | 1 |
| <i>Populus grandidentata</i> | Big-toothed Aspen | 1 |
| <i>Prenanthes altissima</i> | Common Rattlesnake-root | 3 |
| <i>Pteridium aquilinum</i> | Bracken Fern | 1,2,5 |
| <i>Ptilidium ciliare</i> | Hairy Palmate Liverwort | 2 |
| <i>Ptilidium pulcherrimum</i> | Common Palmate Liverwort | 2,3 |
| <i>Ptilium crista-castrensis</i> | Knight's Plume Moss | 1 |
| <i>Pyrola elliptica</i> | Shinleaf | 4 |
| <i>Ranunculus abortivus</i> | Dwarf Buttercup | 1 |
| <i>Ranunculus recurvatus</i> | Hooked Buttercup | 3 |
| <i>Ranunculus hispidus</i> | Hispid Buttercup | 1 |
| <i>Rhododendron canadense</i> | Rhodora | 2,5 |
| <i>Ribes glandulosum</i> | Skunk Currant | 1,3 |

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| <i>Ribes lacustre</i> | Black Swamp Currant | 1 |
| <i>Rubus pubescens</i> | Dwarf Blackberry | 1 |
| <i>Sambucus racemosa</i> | Red Elderberry | 1,3 |
| <i>Sarracenia purpurea</i> | Pitcher Plant | 2 |
| <i>Saxifraga pensylvanica</i> | Swamp Saxifrage | 1 |
| <i>Scapania nemorosa</i> | Common Scapania | 3 |
| | Liverwort | |
| <i>Senecio schweinitzianus</i> | New England Groundsel | 1 |
| <i>Smilacina racemosa</i> | False Solomon's Seal | 3 |
| <i>Solidago rugosa</i> | Rough-stemmed Goldenrod | 1,2 |
| <i>Sorbus americana</i> | Mounatin Ash | 1 |
| <i>Sphagnum centrale</i> | Central Peatmoss | 3 |
| <i>Sphagnum cuspidatum</i> | Floating Peatmoss | 2 |
| <i>Sphagnum fuscum</i> | Rusty Peatmoss | 2 |
| <i>Sphagnum girgensohnii</i> | Girgensohn's Peatmoss | 3 |
| <i>Sphagnum magellanicum</i> | Mauve Peatmoss | 2 |
| <i>Sphagnum squarrosum</i> | Spreading-leaved Peatmoss | 3 |
| <i>Spiraea alba</i> | Meadow-sweet | 1,5 |
| <i>Streptopus roseus</i> | Rosy Twisted Stalk | 4 |
| <i>Taraxicum officinale</i> | Dandelion | 1 |
| <i>Thalictrum dioicum</i> | Early Meadow-rue | 4 |
| <i>Thalictrum pubescens</i> | Tall Meadow-rue | 1,3 |
| <i>Thelypteris phegopteris</i> | Northern Beech Fern | 1 |
| <i>Thuja occidentalis</i> | Northern White Cedar | 2,3,5 |
| <i>Tiarella cordifolia</i> | Foamflower | 1,3 |
| <i>Trientalis borealis</i> | Starflower | 1,3,5 |
| <i>Trillium erectum</i> | Stinking Benjamin | 3 |
| <i>Trillium undulatum</i> | Painted Trillium | 2,3 |
| <i>Tussilago farfara</i> | Coltsfoot | 1 |
| <i>Ulota coarctata</i> | Puckered Ulota Moss | 3 |
| <i>Vaccinium macrocarpon</i> | Large Cranberry | 2 |
| <i>Vaccinium myrtilloides</i> | Velvet-leaf Blueberry | 1,2,5 |
| <i>Vaccinium oxycoccus</i> | Small Cranberry | 2 |
| <i>Veratrum viride</i> | False Hellebore | 3,5 |
| <i>Viburnum alnifolium</i> | Hobblebush | 3,4,5 |
| <i>Viburnum nudum</i> var. <i>cassinoides</i> | Northern Wild Raisin, Withrod | 1,2,3,4 |
| <i>Viburnum opulus</i> | Highbush Cranberry | 1,3 |
| <i>Viola blanda</i> | Sweet White Violet | 1,5 |