

VERMONT BOTANICAL & BIRD CLUB NEWSLETTER

APRIL 2004

2004 ANNUAL MEETING ANNOUNCEMENT

The 109th Annual Meeting of the Vermont Botanical and Bird Club will be held from Thursday at 4:00 PM, June 3 through Sunday at 9:00 AM, June 6, 2004 at Dalem's Chalet in West Brattleboro, Vermont. The Club was last in the southeastern part of Vermont in 1990, when we stayed at the Putney School.

In 1990, we visited several interesting places that have a flora and fauna that are characteristic of southern New England and are quite rare in Vermont. Black Mountain, in Dummerston, has a bare granite summit with views south into Massachusetts and is host to mountain laurel, *Kalmia latifolia*. Black Gum Swamp, in Vernon, is in the J. Maynard Miller Municipal Forest; the 450 acre is the result of a glacial kettlehole and contains many large specimens of black gum, *Nyssa sylvatica*. Herrick's Cove, in Rockingham, is an excellent birding spot at the confluence of the Williams River and Connecticut River; it is in the heart of the Connecticut River flyway and is a migrant trap where birds congregate, rest, and feed in large numbers. Walpole Seep, New Hampshire, is just across the Connecticut River from Bellow's Falls and is home to sticky tofieldia, *Tofieldia glutinosa*, a rare plant in Vermont. We will revisit some of these sites and look for more as we plan for June. Dalem's Chalet is a lodge and restaurant with German, Swiss, Austrian and American fare. If you would like to have a preview of the facilities, see www.dalemschalet.com.

2003 MEETING HIGHLIGHTS

The 108th Annual Meeting of the Vermont Botanical and Bird Club convened at Green

Mountain College in Poultney, Vermont from Thursday, June 12 – Sunday, June 15, 2003.

Thursday evening, President Peter Hope introduced our first scholarship student of the three at this year's meeting, Josh Bakelaar of Green Mountain College, who said that he is open-minded and ready to learn anything from anyone. In the next two days, two more scholarship students arrived for the portion of the meeting that they could attend: Allison Willenbrink and Craig Costion, both from University of Vermont.

Peter then introduced the Thursday evening speaker, Dr. David Barrington, who is the Curator of the Pringle Herbarium at the University of Vermont. He delivered a modern interpretation with slides and discussion based on a manuscript of a talk that Cyrus Pringle delivered in 1896 to the Vermont Botanical Club titled: "Reminiscences of Botanical Rambles in Vermont".

Friday dawned with mist and light to moderate rain. The early morning bird walk was out the door and to the west to the Poultney River that is the border between Vermont and New York.

The two field trips were labeled: West Trip and East Trip. The West Trip included Buckner Preserve, Austin Hill in West Haven; Coggman Creek Knoll and floodplain forest in West Haven; Shaw Mountain in Benson and West Haven. The East Trip included Bicentennial Cobble (Johnson Cobble) in Clarendon; White Rocks Recreational Area in Wallingford; and Tinmouth Channel White Cedar Swamp in Tinmouth.

Friday evening, Dr. Michael Blust, who is a Biology Professor at Green Mountain College,

presented “Dragons and Damsels: Life History and Identification tips”.

Saturday’s morning bird walk visited the Lily Pond north of Lake St. Catherine.

Saturday evening, the Annual Business meeting engaged members in lively discussion on a number of topics; and was followed by the Slides by Members Show. For more details about the Club’s activities, please read on.

EVENING PROGRAMS

THURSDAY, JUNE 12:

REMINISCENCES OF BOTANICAL RAMBLES IN VERMONT, 1896

On Thursday evening, Dr. David Barrington, Curator of the Pringle Herbarium and Chair of the Vermont Botany Department from 1991 – 2002, presented through images and words many interesting insights into a talk that Cyrus G. Pringle presented to the Vermont Botanical Club in 1897 (the Club was then in its second year).

From a manuscript of Cyrus Pringle’s notes for the talk in 1896, we learned of his personal development as a botanist in the early years in Vermont and then his pursuit of further botanical research beginning in 1880 west to the Columbia River and south to the mountains of Mexico.

We learned about the state of botany in New England, especially the knowledge of the native ferns during the middle to late nineteenth century; and we witnessed the exciting discoveries of ferns and of flowering plants made in many of Vermont’s mountain notches and summits: Mt. Mansfield, Smuggler’s Notch, and Mount Pisgah at Lake Willoughby.

In 1873, George Davenport was beginning his study of ferns. “A letter from him asking for me [CP] to look for *Woodsia glabella*, smooth woodsia, started me on a fern hunt”. An intensive study was conducted for the next three

years. Cyrus Pringle, who lived in Charlotte, VT, made many visits to Camel’s Hump, “the peak most accessible to me”. On June 20, 1876, he discovered *Woodsia glabella*, smooth woodsia, and *Dryopteris fragrans*, fragrant fern, after having “clambered over every shelf of its great southern precipice and peered into every fissure amongst the rocks. On June 15, 1876, Cyrus Pringle visited Mount Mansfield and found “its vastly more extensive field, more alpine in character and admirably vast; so I never again climbed the Camel’s Hump” [except once five days later].

On the summit of Mt. Mansfield, Cyrus Pringle found *Dryopteris fragrans*, fragrant fern, *Asplenium viride*, green spleenwort (first occurrence in the United States), and *Diapensia lapponica*, Diapensia. He also found 3 species new to Vermont: *Vaccinium caespitosum*, dwarf blueberry; *Polygonum viviparum*, alpine bistort; and *Prenanthes boottiii*, Boott’s rattlesnake-root.

Later in the same summer, Pringle collected *Woodsia glabella*, smooth woodsia, from Mt. Pisgah at Lake Willoughby; and an additional specimen that Prof. Eaton determined was *Woodsia alpina*, alpine woodsia, another first occurrence in the United States. One month later, he discovered *Woodsia alpina*, alpine woodsia in Smuggler’s Notch and on Mt. Mansfield. In his 23 years of botanical travel, he gathered all but 36 of the 165 species of North American ferns and added 16 new species. “Yet, I trust that the fern hunt upon which he [Davenport] started me in 1873 is still far from its close.”

In 1902, Cyrus Pringle’s herbarium came to the University of Vermont and Cyrus Pringle was instated as the Curator. In September, 2003, The Centennial Celebration of the Pringle Herbarium was held at the Robert Hull Fleming Museum from September 13 – December 14, 2003.

[“Reminiscences of Botanical Rambles in Vermont”, Cyrus G. Pringle, Vermont Botanical and Bird Club Joint Bulletin No. 20, pp. 8 – 14, November 1986.]

FRIDAY, JUNE 13:

DRAGONS AND DAMSELS: LIFE HISTORY AND IDENTIFICATION

In Friday evening, Dr. Micael Blust, Biology Professor at Green Mountain College for 16 years started birding when he was ten years old. He majored in wildlife science at Rutgers New Brunswick and received a Master's Degree in entomology from the University of Delaware studying the Least Clubtail dragonfly. He then earned a PhD from Purdue University in the study of grasshoppers. He gave a Power Point presentation on the nymphal life cycle of dragonflies and damselflies, emergence, adult behavior, and taxonomy.

There are 90 species of dragonflies and 41 species of damselflies in Vermont. The Odonates of the northeast are the least studied in Vermont. In 2002, Bryan Pfeiffer discovered a new dragonfly species in Vermont and Michael Blust added three new species of damselflies in Vermont. Dr. Blust estimates that with further study, Vermont may be home to 150 – 180 species.

Much of the lifespan of dragonflies and damselflies occurs in the nymphal stage, the aquatic stage after hatching from an egg and before emerging as a terrestrial, flying adult. Dragonflies have stockier bodies than the closely related, more slender damselflies. Dragonflies perch with their held flat, whereas damselflies perch with their wings folded above the back. Adults live from 2 weeks to several months. Nymphs may take several years to mature.

Adult females lay eggs in a variety of ways: by inserting them into underwater aquatic plant tissue through sharp appendages at the end of the abdomen underwater; by touching the surface of the water with the abdomen while flying and releasing eggs at each touch; or by flying over water and flicking batches of eggs repeatedly.

The lower labium of the nymph is jointed and extends forward like an arm to grasp food and pull it towards the mouth for the nymph to feed upon. The food is not swallowed whole; on one occasion, a 1" nymph was dining upon a 2" minnow.

The nymph stops feeding just before emerging. The skin cracks down the middle of the back. Before emerging, the soon-to-be adult must let its feet harden; then it pulls itself from the shell and starts to pump hemolymph from the abdomen into the wings to expand them and allow them to dry. Odonates are very vulnerable for about two hours during the emerging process. A newly emerged adult is soft and pale is called a teneral; it gains color through tanning. In the latter part of its life it changes its color through a process called pruinosity, when grayish waxy patches appear.

Adult behavior includes: hilltopping, when hundreds of adults swarm often at the top of a hill possibly to feed or to congregate; defending territory, when males swiftly chase other males from their territory which may consist of a few yards of shoreline; migration, as exhibited by the green darner, which migrates south in the fall and is one of the first to be seen in the season.

During mating, the male clasps the female with appendages at the end of its abdomen that lock into the space between her head and thorax like a lock and key. She then curls her abdomen up to receive sperm from his segment 2 into which he earlier injected a sperm packet from his segment.

The variety of dragonflies and damselflies in Vermont include 7 families of the former and 3 families of the latter. Common dragonflies include: green darner, chalk-fronted corporal, common whitetail. Common damselflies include: Eastern forktail and variable dancer.

Dr. Blust recommended his website:
www.campus.greenmtn.edu/dept/NS/Dragonfly/

SATURDAY, JUNE 14, 2003
ANNUAL BUSINESS MEETING
VERMONT BOTANICAL AND BIRD CLUB
GREEN MOUNTAIN COLLEGE

President, Peter Hope, reported that the Club is circulating a card to Libby Thorne, longtime active Club member and wife of Frank Thorne, a former Treasurer of the Club, after she suffered two strokes in September and December 2002. Libby is the artist who developed the feather and frond that we wear on our name cards. [Debbie still uses the carved eraser blocks that Libby created to print the frond in green ink and the feather in blue ink – a holdout to modern computer graphics].

1. Secretary's Report. Secretary, Debbie Benjamin said that the last time that the Club visited this area was in 1994 at Castleton College. It is good to revisit areas in Vermont over time to see what is similar and what is new. She then read highlights from the 2002 meeting at Johnson State College, distributed a list of the Club's meeting locations and dates from 1895 to the present, and offered the last three Bulletins from 1995, 2000, and 2002 for new members to receive and enjoy. All accepted the Secretary's Report.

2. Treasurer's Report. Treasurer, Charlotte Bill presented a detailed summary of the Club's financial activities. Please see the full Treasurer's Report that follows these Minutes. Roy Pilcher and Dorothy Allard crafted the motions that directed the Treasurer in how to invest the various funds; and members supported those motions unanimously. Anne August moved and Sara Hand seconded approval of the Treasurer's Report. All agreed.

3. Scholarship Report. Vice-President, Dorothy Allard reported that she has contacted every VT college that has a biology, botany or natural science curriculum to make it known that the Vermont Botanical and Bird Club offers scholarships to its annual meeting, which covers the student's room and board at its annual

meeting. Discussion included forming a strategy to announce the meeting in early Spring so that students can consider attending the B&B meeting in the context of their commitment to summer jobs. The group agreed that a target of 5 – 6 students would be a number that the current fundraising efforts could support.

4. B&B Club Brochure. Debbie Benjamin reported that she has been in communication with illustrator, Betsy Brigham, about the new, revised Club brochure. Debbie passed out some examples of Betsy's illustrations that show a high degree of detail in a variety of natural science subjects that are consistent with the Club's activities. Members discussed the idea of having Betsy illustrate a new brochure and, in a motion presented by Fritz Garrison and seconded by Michael St. John, the Club authorized the Executive Committee to develop an illustrated brochure with an illustrative artist and a graphic designer up to the amount of \$750.00. All approved.

5. Bulletin. Peter Hope reported that Arthur Gilman has edited the last two Bulletins in the years 2000 and 2002. Each Bulletin was finely crafted with a variety of historical and contemporary articles. Peter said that he will edit the next Bulletin and the Officers will invite members of the Club and the natural science community to submit articles to the next Bulletin which might be published in 2005.

6. VT B&B Website. Dorothy Allard reported that the Officers of the Club have been considering the idea of producing a Club website to promote the Club's activities to people who gather information from the Web. Fritz Garrison advised the Club about the procedure to set up a domain name and to set up a modest site. Three people volunteered to form a Website Committee: Fritz Garrison, Mike MacCaskey, and Dorothy Allard. Everett Marshall moved and Michael St. John seconded that the Website Committee be allowed up to \$500.00 to initiate a VT B&B Website with email approval from the Executive Officers. All voted in favor.

7. Nominating Committee. Peter Hope introduced the Chair of the Nominating Committee, Bill Martin and asked for him to announce the slate of Officers. Bill replied, "I call upon you the following slate":

Peter Hope	President
Dorothy Allard	Vice President, Plants
Connie Youngstrom	Vice President, Birds
Charlotte Bill	Treasurer
Deborah Benjamin	Secretary

"With your approval I will instruct the Secretary to cast one ballot for the slate". All voted in approval of the slate.

Peter Hope expressed thanks to Everett Marshall for his term as Vice President of Birds for 7 years. All welcomed Connie Youngstrom to the position of Vice President of Birds..

8. Field Trip Reports. Dorothy Allard, Vice President of Plants, reported that on this particular meeting, we saw a lot of ferns, some 25 species of the 60 species that occur in Vermont. See the very detailed and complete plant list later in this Newsletter. She then inticed us into a fern quiz, where members had to fill in the blanks of the first letter of each Latin and common name. So, for a while we were looking at letters in pairs for Latin and common names: "A p , A p , C b , c f , D c , g f , O c , O c , O r , P a , P v " on the chalk board. For the answers to the quiz, see later.

Everett Marshall reported about the bird species seen. The highlight was a turkey nest with twelve eggs that was observed in Tinmouth Channel Cedar Swamp on Friday. The hen sat tight until she could not take it any longer and flushed within 30' of us with a loud sound of wings.

The observations of nests abounded: 2 red-tailed hawk nest, one with two young and one with one young, on the cliffs that are south of Buckner Preserve. On the East Trip at Channel Rd. in Tinmouth, we saw the nests of Oriole, Redwing,

Yellow-bellied Sapsucker, and possibly Scarlet Tanager. Blue gray gnatcatcher was observed Saturday at Cogman Knoll. Both species of cuckoos were seen and heard; and both species of waterthrush, also at Cogman Knoll, were heard.

9. In Memory of Russell Hansen. Peter Hope reported that Club member Russell Hansen, born April 21, 1921, passed away on November 14, 2002. Russ and his wife, Marty, presented evening programs to the Club in 1995 at Stratton Mountain Resort and, most recently, in 2001 at North Hero House. His images showed birds in flight captured on film with motion detecting electronic flash and computer techniques that he invented over many years. Russ and Marty regularly migrated from Lincoln, Vermont in the summer to Fort Davis, Texas in the winter. The April, 2003 issue of Texas Parks and Wildlife Magazine, pp. 26 – 35, published an in-depth article about the life and work of Russ Hansen.

Anne August expressed special thanks to Bryan for his helping hands to help ladies who were stuck in the mud.

The Club appreciates the help in planning a most enjoyable meeting at Green Mountain College by faculty members, Kathy Doyle and Jim Graves, and for their help in leading field trips.

Lynne Arnold moved and Everett Marshall seconded that the meeting adjourn. Respectfully submitted - Deborah Benjamin, Secretary

TREASURER'S REPORT SATURDAY, JUNE 14, 2003

At our annual meeting, the Treasurer reported on the status of the Vermont Botanical & Bird Club's three accounts: the checking account, the equity fund, and the certificate of deposit.

On June 14, 2003, the checking account balance at the Chittenden Bank was \$10,253.22,

compared with a balance of \$8997.15 on June 19 at the 2002 meeting.

The Treasurer reported that in response to the members' vote at the 2002 meeting, she had sent a total of \$1000 in four equal payments to the Green Century Equity Fund. As a result, on June 11, 2003, the Club owned 354.228 shares, valued at \$16.31 per share for a total value of \$5777.46, compared with 2002, when we owned 285.445 shares valued at \$16.54 per share for a total value of \$4721.26. [Take heart: as I write this on April 8, 2004, our shares are valued at \$18.87 per share.]

Our initial \$5000 certificate of deposit, issued May 30, 2000, by the New South Federal Savings Bank, had earned \$610.74 in interest by March 23, 2002. By June 2, 2003, it had earned an additional \$201.01 for a CD balance of \$5811.75 on June 14, 2003. The Treasurer reported that she had renewed this CD for a 61-day term with a maturity date of 8/2/03, so that club membership could decide at the annual meeting whether to renew this CD for a longer term or to seek a different investment opportunity.

The Current Year/Rollover Scholarship Fund's balance was \$1760.79, with all of it in the checking account. The Scholarship Endowment Fund stood at \$3612.50, with \$912.50 of this amount still held in the checking account.

The Treasurer reported the results of the 2002 Johnson State College meeting. With \$3513.00 in expenses and \$5461.50 in revenues, the net gain to the treasury was \$1948.50.

- Members voted to approve the Treasurer's Report.
- Members voted to direct the Treasurer to cash in the New South Federal Savings Bank certificate of deposit when it matured on 8/2/03 and to deposit half of that money in a "no-penalty-for-early-withdrawal CD" and to invest the other half in the Green Century Equity Fund account.

- Members voted to direct the Treasurer to take \$4000 from the checking account and to deposit half of that money (\$2000) in the same "no-penalty-for-early-withdrawal CD" and the other half (\$2000) in the Green Century Equity Fund account.

Wow! The ferns and dragonflies presentations were wonderful and surely captured our interest, but the money management questions we dealt with and the decisions we reached that evening certainly commanded attention, as well!
Respectfully submitted – Charlotte Bill,
Treasurer

FIELD TRIPS 2003

WEST TRIP:

1. Buckner Preserve, Austin Hill, West Haven.

While Austin Hill and Bald Mountain are composed of Precambrian gneiss and quartzite, west of the hills and between them are limestones and marbles. Much of the forest on the tops of the hills is dry oak-hickory-hophornbeam forest. We saved this forest type until the last stop at Shaw Mountain. On the way to Buckner Preserve, we stopped at two locations where red-tailed hawks were nesting on the cliffs. We had good views of a nest with one chick and a nest with two chicks. We then hiked a short way up the Susan Bacher Trail through a rich talus area with ledges. The forest community here is richer attesting to the downward movement of nutrients as well as more calcareous bedrock. The rich flora here could be said to have a southern affinity – oaks and hickories with maples and basswoods and a rich herb layer.

2. Coggman Creek Knoll and floodplain forest, West Haven.

We explored the base of the high prominent limestone cliff that forms the south side of the knoll. A short, steep slope up to the cliff base

revealed some lime-loving ferns and northern white cedar. A floodplain forest held many ferns and two rare members of the genus *Arisaema*: green dragon and northern jack-in-the-pulpit. The birding along the road which follows the meandering Poultney River was superb.

3. Shaw Mountain, Benson and West Haven.

A trail with switchbacks leads one up through a warm calcareous ledge community up into a dry oak-hickory-hophornbeam forest that has a very open feeling due to the dry soils and relatively little undergrowth. Because of the calcareous bedrock, warm climate and geographical proximity to more southern floras, Shaw Mountain as an assemblage of species that is very unique in Vermont. The Trail then drops down to a marsh with a boardwalk.

EAST TRIP:

Sub-one: On the way to the first stop on the East Trip, we stopped at Channel Road in Tinmouth for excellent birding.

1. Bicentennial Cobble (Johnson Cobble), Clarendon.

Bicentennial Cobble was conserved by The Nature Conservancy in 1976 with some financial assistance from the Vermont Botanical and Bird Club; this 32 acre site is managed by Castleton State College. The Dunham Dolomite limestone cobble with a rich talus slope supports 33 species of ferns including Goldie's wood fern and Narrow-leaved glade fern.

2. White Rocks Recreational Area, Wallingford.

A trail with switchbacks carries one from the picnic area through red spruce, balsam fir, sugar maple, beech, hemlock, white pine, white birch forest to the overlook to the talus slopes. The white rock bedrock is Precambrian Cheshire Quartzite, a circumneutral or acid rock which is resistant to weathering and accounts for the shallow soils of the area. On June 4, during

scouting, mountain azalea was in bloom among the red spruce around the open talus areas (as well as in many yards in the town of Poultney).

3. Tinmouth Channel White Cedar Swamp, Tinmouth.

Tinmouth Channel is a large wetland complex managed by the Vermont Department of Fish and Wildlife. There is open water, cattail marsh, alder and willow thicket, and lowland northern white cedar swamp. We explored the drier areas for ferns, mosses, and orchids and we found a wild turkey nest nestled into a dark, shady spot.

SLIDES BY MEMBERS

Four members showed images of their travels.

1. Peter Hope displayed a slide of his friend who was wearing a white shirt in a bog and was covered by 31 dragonflies, no doubt attracted to the color white. Michael Blust looked at the image up close and said that it was probably a whiteface, *Leucorrhinia*, species.

We enjoyed Peter's visit to Tuckerman's Ravine at Mount Washington one week before today. The Gulf Slide Trail at the head of Great Gulf has many species of the snow bank community, including *Cassiope hypnoides*, moss plant; *Salix herbacea*, herb-like willow and *Silene acaulis*, moss campion. People were still skiing and a red fox with 2 kits frolicked while the group watched them for about 30 minutes. Peter showed *Rhododendron lapponicum*, Lapland rosebay, and *Salix urva-ursi*, bearberry willow, for Charlotte and others. He then showed Lapland rosebay and *Diapensia lapponicum*, diapensia together for the earliest time (June 9) in the several years that he and his friends have made this trip.

2. Roger Bradley showed many slides of orchids that he viewed on a two-week trip to Newfoundland in 1994. We saw *Malaxis bayardii*, a hybrid of white adder's mouth and green adder's mouth. Roger said that many of

these pictures were taken in the rain. He took a beautiful picture of *Amerorchis rotundifolia*, small round-leaved orchis, a species that has not been seen in Vermont in several decades. “You get down on your hands and knees in water to get a picture”. Roger showed a beautiful dark pink form of *Calypso bulbosa*. We saw *Dactylorhiza majalis ssp. praetermissa*, which was first seen in North America at Tilt Cove, Newfoundland. We enjoyed seeing 3 orchid species in one picture: *Arethusa bulbosa*, *Pogonia ophioglossoides*, and *Calopogon tuberosus*. “Everywhere we went the orchids were where they were supposed to be. The leader would point out one and then proceed. I was stuck trying to take a picture and keeping up while it was raining”.

3. Roy Pilcher took a birding trip to Oregon in June, 2001. For three weeks, he never cooked a single meal and lived on canned sardines. Could his diet have put him into closer contact with sea birds? Yes! He traveled from the Columbia River down the Oregon coast taking pictures of birds. At Cape Muir, we saw western gull, “they will pose for you, as they want to be seen in VT”. We watched white pelicans form a semi-circle to corral fish to increase their dinner. In the lower Klamath, we saw Gadwall and chicks. This area is subject to disputes between the natural wildlife refuge and the farmers who are experiencing serious water shortages. Roy captured an exquisite picture of a Willet; and in his words “Sometimes you get lucky, you come along, they say here I am; when you get a picture like this, you get a picture”. The chicks of the Cliff Swallows were precious; and the ½ mile hike back to the car to get the camera rewarded us with a very patient White-crowned Sparrow.

3. Bill Arnold gave a powerpoint presentation of pictures from this year’s meeting and from last year’s meeting. Highlights of the present meeting include: veery and nest, false indigo, *Woodsia obtusa*, pearl crescent butterfly, hummingbird moth, green dragon and its spath, Canada lily. From last year’s meeting, we saw Belvidere Bog, Labrador tea, southern twayblade,

Devil’s Gulch ferns, where “it was 40 degrees and everywhere else, it was 80 degrees”.

2003 Bird List

Great Blue Heron
 Canada Goose
 Wood Duck
 American Black Duck
 Mallard
 Turkey Vulture
 Red-tailed Hawk nest (2)
 Wild Turkey nest
 Mourning Dove
 Black-billed Cuckoo
 Yellow-billed Cuckoo
 Chimney Swift
 Belted Kingfisher
 Yellow-bellied Sapsucker nest
 Downy Woodpecker
 Northern Flicker
 Pileated Woodpecker
 Eastern Wood-pewee
 Alder Flycatcher
 Least Flycatcher
 Great-crested Flycatcher
 Eastern Kingbird
 Tree Swallow
 Barn Swallow
 Blue Jay
 American Crow
 Common Raven
 Black-capped Chickadee
 Tufted Titmouse
 Winter Wren
 Blue-gray Gnatcatcher
 Eastern Bluebird
 Veery nest
 Wood Thrush
 American Robin
 Gray Catbird
 Cedar Waxwing
 European Starling
 Yellow-throated Vireo
 Warbling Vireo
 Red-eyed Vireo nest
 Yellow Warbler
 Chestnut-sided Warbler

Yellow-rumped Warbler		Rose-breasted Grosbeak	
Black-throated Green Warbler		Indigo Bunting	
Blackburnian Warbler		Song Sparrow	
Black-and-White Warbler		Swamp Sparrow	
American Redstart		Red-winged Blackbird	nest
Ovenbird		Northern Oriole	nest
Northern Waterthrush		American Goldfinch	
Louisiana Waterthrush		House Sparrow	
Common Yellowthroat			
Scarlet Tanager	nest (?)		
Northern Cardinal		61 species	

2003 PLANT LIST

2003 VT Botanical and Bird Club Plant List Sites:

- 1=Buckner Preserve, Austin Hill, West Haven
- 2=Coggman Creek Knoll & Floodplain Forest
- 3=Shaw Mt., Benson & West Haven
- 4=Bicentennial Cobble (Johnson Cobble), Clarendon
- 5=White Rocks Recreational Area, Wallingford
- 6=Tinmouth Channel White Cedar Swamp, Tinmouth

Scientific Name	Common Name	Sites
<i>Acer rubrum</i>	Red Maple	3
<i>Acer saccharinum</i>	Silver Maple	2
<i>Acer saccharum</i>	Sugar Maple	3,4
<i>Actaea pachypoda</i>	Doll's Eyes, White Baneberry	4
<i>Adiantum pedatum</i>	Maidenhair Fern	3,4
<i>Allium tricoccum</i>	Wild Leek	4
<i>Amelanchier arborea</i>	Common Shadbush	6
<i>Amorpha fruticosa</i>	False Indigo	1
<i>Aquilegia canadensis</i>	Columbine	1
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	1,2,3
<i>Aralia racemosa</i>	Spikenard	4
<i>Arisaema atrorubens</i>	Jack-in-the-Pulpit	4
<i>Arisaema dracontium</i>	Green Dragon	2
<i>Arisaema stewardsonii</i>	Northern Jack-in-the-Pulpit	2,4
<i>Arisaema triphyllum</i>	Small Jack-in-the-Pulpit	4
<i>Asarum canadense</i>	Wild Ginger	1,4
<i>Asclepias quadrifolia</i>	Four-leaved Milkweed	1,3
<i>Asplenium rhizophyllum</i>	Walking Fern	6
<i>Asplenium trichomanes</i>	Maidenhair-Spleenwort	1
<i>Aster acuminatus</i>	Whorled Aster	5
<i>Aster puniceus</i>	Bristly Aster	6
<i>Athyrium felix-femina</i>	Lady Fern	6
<i>Athyrium pycnocarpon</i>	Glade-fern	4
<i>Barbilophozia attenuata</i>	a leafy liverwort	5
<i>Bazzania trilobata</i>	a leafy liverwort	5,6

<i>Botrychium virginianum</i>	Virginia Grapefern	3
<i>Caltha palustris</i>	Marsh Marigold, Cowslips	6
<i>Calypogeia neesiana</i>	a leafy liverwort	6
<i>Campanula rotundifolia</i>	Harebell	1
<i>Carex eburnea</i>	a sedge	3
<i>Carex hitchcockiana</i>	a sedge	4
<i>Carex intumescens</i>	a sedge	6
<i>Carex leptalea</i>	a sedge	6
<i>Carex pensylvanica</i>	a sedge	3
<i>Carex plantaginea</i>	a sedge	4
<i>Carex platyphylla</i>	a sedge	3
<i>Carya cordiformis</i>	Bitternut Hickory	1
<i>Carya ovata</i>	Shagbark Hickory	3
<i>Caulophyllum thalictroides</i>	Blue Cohosh	4
<i>Celtis occidentalis</i>	Northern Hackberry	1
<i>Ceratodon purpureus</i>	a moss	5
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	4
<i>Corylus cornuta</i>	Beaked Hazel	3
<i>Cryptotaenia canadensis</i>	Honewort	2
<i>Cypripedium acaule</i>	Pink Ladyslipper	5
<i>Cypripedium calceolus</i>	Yellow Ladyslipper	6
<i>Cystopteris bulbifera</i>	Bulblet Fern	1,3,4
<i>Cystopteris fragilis</i>	Fragile Fern	1,4
<i>Dalibarda repens</i>	Dewdrop	6
<i>Danthonia spicata</i>	Poverty Oat Grass	5
<i>Deparia acrostichoides</i>	Silvery Glade Fern	4
<i>Desmodium glutinosum</i>	Pointed-leaved Tick Trefoil	3
<i>Diplophyllum apiculatum</i>	a leafy liverwort	5
<i>Dryopteris cristata</i>	Crested Wood Fern	6
<i>Dryopteris goldiana</i>	Goldie's Fern	4
<i>Dryopteris marginalis</i>	Marginal Wood Fern	3
<i>Epipactis helleborine</i>	Helleborine	3
<i>Equisetum scirpoides</i>	Dwarf Scouring Rush	6
<i>Equisetum sylvaticum</i>	Woodland-horsetail	6
<i>Erigeron pulchellus</i>	Robin's Plantain	2
<i>Eupatorium rugosum</i>	White Snakeroot	2,3
<i>Fagus grandifolia</i>	American Beech	3
<i>Festuca subverticillata</i>	Nodding Fescue	3
<i>Fissidens osmundioides</i>	a moss	6
<i>Fissidens taxifolius</i>	a moss	
<i>Fraxinus americana</i>	White Ash	4
<i>Frullania eboracensis</i>	a leafy liverwort	2
<i>Frullania tamarisci ssp. asagrayana</i>	a leafy liverwort	6
<i>Galium circaezans</i>	Wild Licorice	3
<i>Galium triflorum</i>	Sweet-scented Bedstraw	1
<i>Gaultheria hispida</i>	Creeping Snowberry	6
<i>Gaylussacia baccata</i>	Black Huckleberry	5
<i>Geranium robertianum</i>	Stinking Robert	1,4
<i>Geum rivale</i>	Water Avens	6

<i>Glechoma hederacea</i>	Ground Ivy	1
<i>Gymnocarpium dryopteris</i>	Oak Fern	6
<i>Gymnostomum aeruginosum</i>	a moss	
<i>Hamamelis virginiana</i>	Witch Hazel	3
<i>Hepatica acutifolia</i>	Sharp-lobed Hepatica	3
<i>Hydrophyllum virginianum</i>	Virginia Waterleaf	1,4
<i>Hylocomium splendens</i>	Stair-Step Moss	6
<i>Hypericum punctatum</i>	St. John's Wort	3
<i>Hypnum imponens</i>	a moss	5
<i>Impatiens capensis</i>	Orange Jumpseed	2
<i>Juniperus virginiana</i>	Eastern Red Cedar	3
<i>Laportea canadensis</i>	Wood Nettle	1,2,4
<i>Lepidozia reptans</i>	a leafy liverwort	5
<i>Leskea graciliscens</i>	a moss	2
<i>Leucobryum glaucum</i>	Mother-in-Law's Cushion Moss	5
<i>Lilium superbum</i>	Turk's-cap Lily	2
<i>Lonicera canadensis</i>	Canada Honeysuckle	6
<i>Lysimachia nummularia</i>	Maywort	1
<i>Maianthemum canadense</i>	Canada Mayflower	5
<i>Matteucia struthiopteris</i>	Ostrich Fern	2,4
<i>Mitella diphylla</i>	Miterwort, Bishop's Cap	4
<i>Mitella nuda</i>	Naked Miterwort	6
<i>Moneses uniflora</i>	One-flowered Pyrola	6
<i>Nowellia curvifolia</i>	a leafy liverwort	6
<i>Onoclea sensibilis</i>	Sensitive Fern	2,4
<i>Oryzopsis asperifolia</i>	Rough-leaved Ricegrass	3
<i>Oryzopsis racemosa</i>	Blackseed Ricegrass	3
<i>Osmorhiza claytoni</i>	Sweet Cicely	1,3,4
<i>Osmunda claytoniana</i>	Interrupted Fern	4
<i>Osmunda regalis</i>	Royal Fern	6
<i>Ostrya virginiana</i>	Hop-hornbeam	1,3
<i>Parthenocissus vitacea</i>	Grape Woodbine	1
<i>Parthenocissus quinquefolia</i>	Virginia Creeper, Woodbine	3
<i>Phegopteris connectilis</i>	Long Beech Fern	6
<i>Phryma leptostachya</i>	False Violet	1
<i>Plantago major</i>	Common Plantain	1
<i>Poa compressa</i>	Canada Bluegrass	5
<i>Polygala paucifolia</i>	Gaywings	3
<i>Polypodium virginianum</i>	Common Polypody	5
<i>Polystichum acrostichoides</i>	Christmas Fern	3,4
<i>Polytrichum pallidisetum</i>	Hair-cap Moss	5
<i>Polytrichum piliferum</i>	Hair-cap Moss	5
<i>Populus deltoides</i>	Trembling Aspen	1
<i>Porella platyphylla</i>	a leafy liverwort	
<i>Potentilla sp.</i>	Cinquefoil	1
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	6
<i>Prenanthes sp.</i>	Wild Lettuce	1
<i>Prunus serotina</i>	Black Cherry	1
<i>Quercus nigra</i>	Black Oak	4

<i>Quercus prinus</i>	Chestnut Oak	1
<i>Quercus rubra</i>	Northern Red Oak	1,3
<i>Ranunculus abortivus</i>	Small-flowered Crowfoot	1,3
<i>Ranunculus bulbosus</i>	Bulbous Buttercup	2
<i>Rhodobryum roseum</i>	a moss	4
<i>Rhododendron prinophyllum</i>	Mountain Azalea	5
<i>Rhus radicans</i>	Poison Ivy	4
<i>Rhytidiadelphus</i>	a moss	6
<i>Ribes cynosbati</i>	Prickly Gooseberry	1,3
<i>Robinia pseudoacacia</i>	Black Locust	1
<i>Rubus odoratus</i>	Purple-flowering Raspberry	2
<i>Sanguinaria canadensis</i>	Bloodroot	1,3
<i>Sanicula gregaria</i>	Clustered Snakeroot	3
<i>Smilacina racemosa</i>	False Solomon's Seal	1,4
<i>Smilacina stellata</i>	Star-flowered Solomon's Seal	6
<i>Smilax herbacea</i>	Carrionflower	2
<i>Solidago sp.</i>	Goldenrod	4
<i>Symplocarpus foetidus</i>	Skunk Cabbage	2
<i>Thalictrum dioicum</i>	Early Meadow Rue	2
<i>Thuja occidentalis</i>	Northern White Cedar	6
<i>Tiarella cordifolia</i>	Foamflower	4
<i>Tilia americana</i>	American Basswood	3,4
<i>Trichocolea tomentella</i>	a leafy liverwort	6
<i>Trillium sp.</i>	Trillium	3
<i>Trillium undulatum</i>	Painted Trillium	5
<i>Tsuga canadensis</i>	Eastern Hemlock	5
<i>Ulmus americana</i>	American Elm	1,4
<i>Uvularia perfoliata</i>	Bellwort	2
<i>Uvularia sessilifolia</i>	Sessile-leaved Bellwort, Wild Oats	3
<i>Vaccinium myrtilloides</i>	Velvet-leaf Blueberry	5
<i>Viburnum acerifolium</i>	Maple-leaved Viburnum	3
<i>Viburnum rafinesquianum</i>	Downy Arrowwood	1,4
<i>Viola canadensis</i>	Canada Violet	4
<i>Vitis aestivalis</i>	Summer Grape	1
<i>Woodsia obtusa</i>	Blunt Cliff-fern	1
<i>Xanthoxylum americanum</i>	Prickly Ash	1

Quiz:

A	p	<i>Adiantum pedatum</i>
A	p	<i>Athyrium pycnocarpon</i>
C	b	<i>Cystopteris bulbifera</i>
C	f	Christmas fern
D	c	<i>Dryopteris cristata</i>
G	f	Grape fern
O	c	<i>Osmunda cinnamomea</i>
O	c	<i>Osmunda claytoniana</i>
P	a	<i>Polystichum acrostichoides</i>
P	v	<i>Polypodium virginianum</i>

