

LANDIS ARBORETUM

THE NEWSLETTER

Esperance, New York

FALL 2004

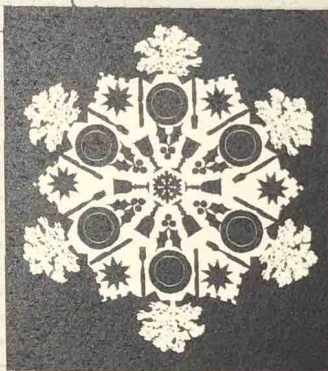
VOLUME 23, NO. 4

WHAT'S Inside

- 2 ... From the Garden
- 3 ... Winterberry Holly
- 3 ... Thanks
- ... Wish List
- 4 ... Collections News
- 5 ... Wish List
- 6 ... New Members
- 6 ... Thank You
- 6 ... Horsetails and Club
- ... Mosses
- 7 ... Need a Tetanus Booster?
- 7 ... Native Plant
- ... Committee Report
- 8 ... Drawing workshop

You are invited to attend the 2004 Holiday Celebration

Enjoy an epicurean luncheon prepared by Chefs **Keith Buerker** and **Bob Miller** and their garde manger class from SUNY Cobleskill. Additional assistance for the event is provided by the Advanced Food Production class of **Dr. Jonathan Probbler**



Reservations and payment are required by November 30.
Cost: \$25 per person
Number of reservations _____

I cannot attend, but would like to make a donation to the Landis Arboretum.

Tired of winter already? SUNY Professor **Jack Ingel's** presentation on landscape design for the homeowner will inspire visions of your own dream garden.

Friday, December 3
Luncheon — 11:15 am,
Demonstration — 1:00 pm
SUNY Cobleskill, Champlin Lounge

Please make your check payable and send to Landis Arboretum
PO Box 186
Esperance, New York 12066
or call 518-875-6935.

A silent auction and live auction of wreaths and centerpieces will allow you to take home a unique holiday decoration.

This event allows SUNY Cobleskill culinary students the opportunity to provide a Grand Buffet for the public. Funds raised from this event go toward Landis Arboretum programs.



Partygoers at the 2003 Holiday Celebration including Marcia Haas, wife of Dr. Thomas Haas, President of SUNY Cobleskill (left). A prospective chef adjusts the sugar sculpture (right); Anne Rogan, dean of the culinary arts program at the college, and Gloria Van Duyne, Executive Director at Landis, stand in front of an ice sculpture, (far right).

Photos by Gloria Van Duyne

THE LANDIS ARBORETUM NEWSLETTER is published quarterly for its members. The Arboretum's mission is to foster the appreciation of trees and other plants and their importance in our environment.

EDITORIAL BOARD

David Buddle, Sue Gutbezah, Sonja Javarone, Susan Sagendorf, and Gloria Van Duyne

COPY EDITORS

David Buddle and Sonja Javarone

DESIGN & PRODUCTION EDITOR

Sue Gutbezah

CONTRIBUTORS TO THIS ISSUE

Fred Breglia, Sue Gutbezah, Sonja Javarone, Ed Miller, and Gloria Van Duyne.

PRINTER

Miller Printing and Litho Amsterdam, NY

BOARD OF TRUSTEES

Ken Hotopp, *President*
John Brust, *Vice President*
David Browning, *Treasurer*
Sonja Javarone, *Secretary*
John Fritz, *Member at large*

Paul Blair, Steve Coonradt, Florence Grimm, Lawson Harris, Cathy Lewis, Mervyn Prichard, Scott Trees

ARBORETUM STAFF

Gloria Van Duyne, *Executive Director*
Dolores Kloczko, *Office Manager*
Fred Breglia, *Head of Horticulture and Operations*
George Steele, *Science Educator*
Randy Proctor, *Grounds and Maintenance*

Address correspondence to:

Newsletter Editor, Landis Arboretum
P.O.Box 186, Esperance, NY 12066.
phone 518-875-6935
fax 518-875-6394
email landis@midtel.net
http://www.LandisArboretum.org

The Arboretum is located one and one-half miles north of Route 20 in Esperance. Follow the signs from the village to Lape Road. The Arboretum is one-quarter mile straight ahead.

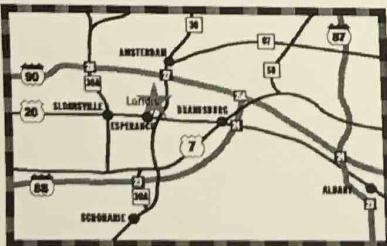


Photo by Fred Breglia

FROM THE GARDEN

By Gloria Van Duyne, Executive Director

Volunteers make the difference, and the Landis Arboretum could not function without volunteers. Up to this year, organizing volunteers, matching them with the right job, and attracting new volunteers was ably done by our fantastic coordinator, Susan Sagendorf. She retired from the position last January, leaving opportunities for other people to do this essential work.

Two volunteers recently filled the gap and went above and beyond. Our plant sales need more volunteers than any other event. For the Fall Plant Sale, Bob and Carole Olsen took on the responsibility of organizing volunteers and assigning them to the right job. Bob and Carole had volunteered in the past but had not been involved in the planning and execution of a plant sale. The energy, enthusiasm, and especially time that they contributed certainly were partly responsible for one of our most productive fall plant sales. We grossed \$14,700. On behalf of the Arboretum, many thanks to Bob and Carole. We appreciate all the work the many volunteers contributed to this sale. Thank you to our six new volunteers and to the other 50 dedicated volunteers who have helped with many sales.

This year was the first in which we undertook a mid-year appeal. The response in donations was encouraging. We raised \$5,600. We hope this will not detract from the usual success of our annual appeal sent out this month. Our appeals and events like our plant sales help pay for expenses such as heat, electric, telephone, insurance, and salaries that many grants won't cover.



Photo by Gloria Van Duyne

Welcome to Dolores Kloczko, our new office manager. Dolores originally trained as a microbiologist.

In 1974 she moved to Schoharie County and raised a family. She returned to school in 1989, took courses in landscape design and horticulture, and has been a Cornell Cooperative Extension Master Gardener for 10 years. She has volunteered at the Iroquois Indian Museum for many years and recently finished a temporary education position there. Dolores's position is half-time and she is in the office Monday through Thursday. The next time you call or visit, please introduce yourself.



The Swat Team with newly pruned tree. (See Collections News on page 4.)

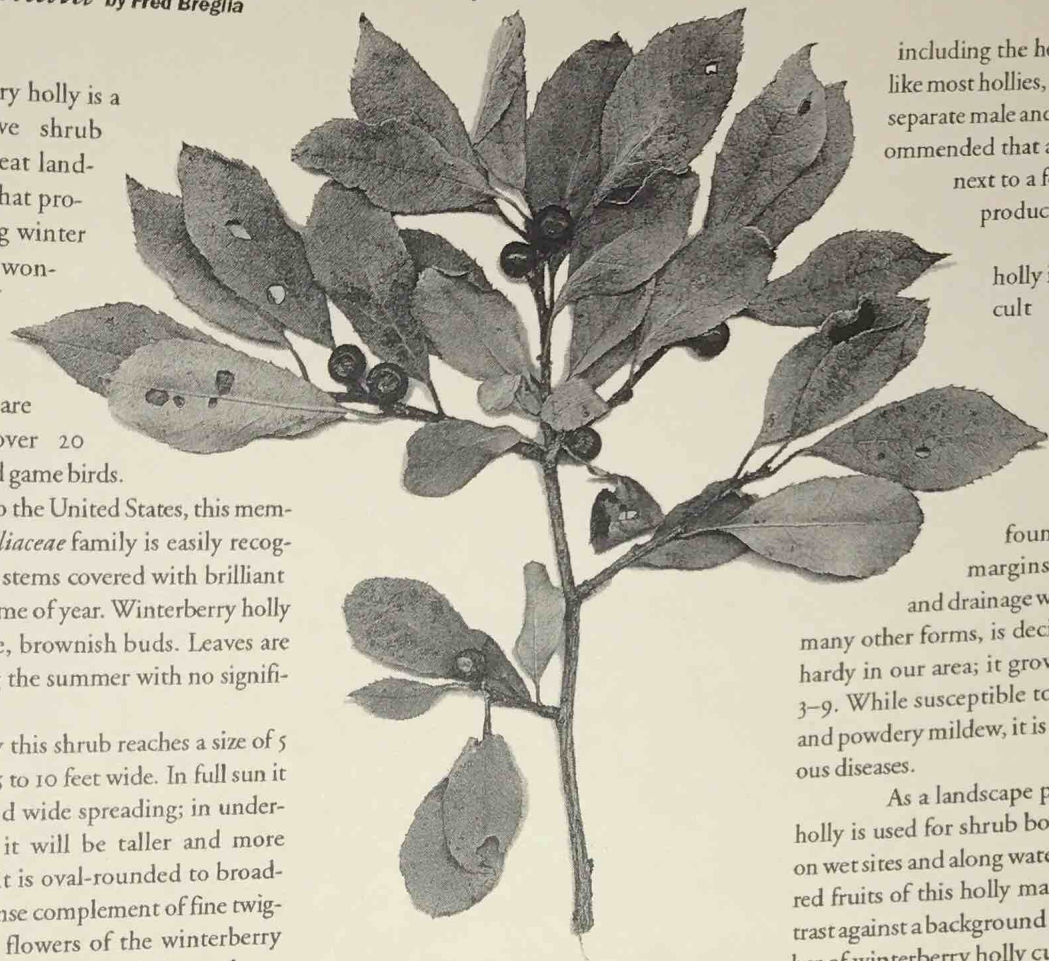
Winterberry Holly

Ilex verticillata by Fred Breglia

Winterberry holly is a wonderful native shrub that is both a great landscape specimen that provides outstanding winter color as well as a wonderful source of food for wildlife. In fact winterberry holly fruits are consumed by over 20 species of song and game birds.

Native to the United States, this member of the *Aquifoliaceae* family is easily recognized by its black stems covered with brilliant red fruits at this time of year. Winterberry holly has small, globose, brownish buds. Leaves are deep green during the summer with no significant fall color.

Typically this shrub reaches a size of 5 to 10 feet tall and 5 to 10 feet wide. In full sun it may be shorter and wide spreading; in under-ory conditions it will be taller and more upright. The habit is oval-rounded to broad-rounded with a dense complement of fine twiggy branches. The flowers of the winterberry holly are small and not particularly showy; however, they do attract a wide range of pollinators



including the honeybee. These shrubs, like most hollies, are dioecious, meaning separate male and female plants. It is recommended that a male holly be planted next to a female to allow for fruit production.

Winterberry holly is very tolerant of difficult growing conditions ranging from very wet to dry, but prefers heavy soils rich in organic matter with abundant moisture. Typically it can be found growing along the margins of ponds, swamps, and drainage ways. This holly, unlike many other forms, is deciduous and extremely hardy in our area; it grows in hardiness zones 3-9. While susceptible to tar spots, leaf spots, and powdery mildew, it is not prone to any serious diseases.

As a landscape plant, the winterberry holly is used for shrub borders and mass effect on wet sites and along watersides. The persistent red fruits of this holly make for a striking contrast against a background of snow. A large number of winterberry holly cultivars are available.

Photo-illustration by Sue Gutbezahl

MANY THANKS TO THE FOLLOWING PEOPLE AND BUSINESSES FOR THEIR GENEROUS GIFTS AND CONTINUING SUPPORT—

Warren Burton for his 4-wheel drive pickup truck.

Shawn Strong for towing our new (used) 4-wheel drive pickup to the Arboretum.

Ed Miller for his continued work on the native plants trail.

The pruning swat team (See photo, left, and Collections News, page 5.)

Carol Loucks and Al D'Alauro for their tireless efforts in our perennial gardens.

All who volunteered at the Fall Workfest

Cleanup Day, including Paul Steenberg, Karen Hough, Lilly Bullis, Ethan Lalli, and Shannon Effner, from Oneonta; Pat Rush and Mim Butzel, Gail Sprague and Michael Reed, Bob Grimm, Jack Fritz, Sue Gutbezahl, and Lawson Harris.

Everyone who volunteered and donated items at the Fall Plant, Book, and Bake Sale, including Edie Brown, Owl Pen Book

Store; Susan Novotny, Book House of Stuyvesant Plaza; Jim and Roberta Brooks, Catnap Books, for donating books.

And Bern Allanson, Paul Blair, David, Gail and Susan Browning, David Buddle, Mim Butzel, Dick Clowe, Tom Edmunds, Rose Elliot, Herm Finkbeiner, Jack Fritz, Robin Glenn, Florence and Bob Grimm, Sue Gutbezahl

Lawson and Priscilla Harris, Bob Hennig, Waynet Hinds, Ginger Hoepfner, Hen and Marian Hotopp, Amy Howansky, Barbara Hunt, Sonja Javarone, Bonnie Keller, Jane Kirstel, Jim Koch, Rita and Bob Krom, Cathy Lewis, Judith Lott

Barbara Manning, Lisa Murphy, Ron Neadle, Amy and Sandra Nevin, Gina Nielsen, Bob and Carole Olsen, Jeanne Post-Sourmail, Rena Powell, Sara Pratt,

Mervyn Prichard, Ryck Proctor, Pat Rush

Gladys Sasowski, Dan Schmidt, Viktoria Serafin, Jane Smith, Joan Sondergaard, Ellen Tanner, Scott and Grace Trees, Earl Van Wormer III, Mary Beth Vought, Sandy Willis, Toine Wyckoff, and Nick Zabawsky

Michelle Bacares, Trina Bassoff, Jack Fritz, Ken Hotopp, Claudia McLaughlin, and Randy Proctor for donations of animal skins, bones, and insects for education programs.

And the mailing crew in the office; the Acorn Shop volunteers; the gardeners, the pruning swat team, and everyone who contributed expertise and articles and photographs to the newsletter.

COLLECTIONS NEWS

by Fred Breglia, Head of Horticulture and Operations



Fall is upon us. The woods seem more alive than ever with all the wonderful changes taking place. Trees, shrubs, and perennials are very active shutting down

for the season and storing water and energy for next year's growth. Chlorophyll production in plant leaves is stopping, giving way to brilliant reds, oranges, yellows, pinks, and purples. The decaying leaves on the forest floor mixed with abundant moisture yields a welcome, wonderfully spicy aroma that is as much a part of fall as the changing colors of the foliage.

This summer has been an extremely exciting and busy one. Some very impressive changes have occurred at Landis. If you walked the grounds of the Arboretum lately, you would have noticed some major improvements. A grant from the New York State Environmental Protection Fund has enabled increased accessibility for recreational purposes and improvement of our natural areas.

The most visible renovated areas are the entire right side of Lape Road (see photos on page 5) just up the hill from the meeting house. We tore out thousands of invasive plants such as black locust

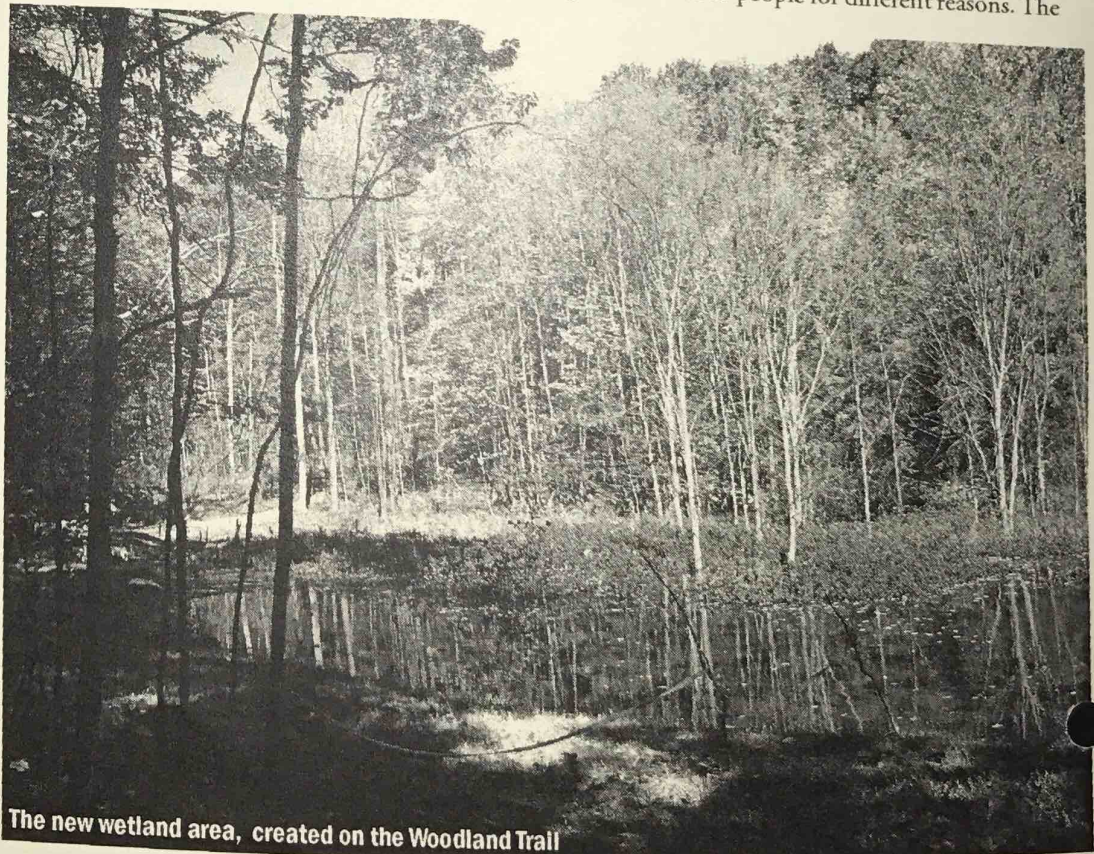
and honeysuckle, at the same time exposing fantastic views of the Adirondack foothills. These newly opened areas have been seeded with a mix of grass and wildflowers and will be seasonally brushhogged to prevent regrowth of unwanted woody species. The hillside where the Great Oak grows has also been cleared, showcasing a newly exposed view of the Schoharie Valley and Catskill Mountain foothills. Other areas that have been cleared of invasive species include the grounds around the meeting house, which will be a future picnic site, as well as the hedgerow behind and alongside the greenhouse-library complex.

On the way to the Great Oak, you will see a newly created wetland in the woodland (photo, below) located on the left side of the Woodland Trail. A new trail enables visitors to walk along the edge of the wetland and see the many species of flora and fauna that live in this habitat.

Trails

Many of the trails have been improved to make walking and hiking easier than ever. We have added new culverts, boardwalks, bridges, and ditches. These additions have improved visitor accessibility and expanded recreational opportunities throughout the Arboretum.

The Willow Pond Trail has also been a great resource to people for different reasons. The



The new wetland area, created on the Woodland Trail

High adventure for a member of the Swat Team.

Photo by Fred Breglia

side-by-side comparison of different species serves as a wonderful botany tool for species identification. More species have been added this year, the trail improved, signage added, and a new audio CD added to the informal learning that visitors can get from our site. Plans are underway to label the many different native species that you pass on the Woodland Trail from the meeting house, past the Great Oak and back to the greenhouse-library complex. These new signs will be photo-metal and list the common and Latin names as well as the families to which they belong.

Tree Collections

Many trees have been added to our continuously growing collections this year. In fact we installed over 30 new trees from 22 different species: Indian Summer crabapple (*Malus* 'Indian Summer'), sawtooth oak (*Quercus acutissima*), northern pin oak (*Q. ellipsoidalis*), golden raintree (*Koelreuteria paniculata*), Siebold viburnum (*Viburnum sieboldii*), Persian parrotia (*Parrotia persica*), regent scholartree (*Styphnolobium japonicum*), snow goose higan cherry (*Prunus subhirtella* 'Snow Goose'), Sargent cherry (*P. sargentii*), Stella cherry (*P. stella*), accolade flowering cherry (*P.* 'Accolade'), Lambert cherry (*P. lam-beri*), cardinal crabapple (*Malus* 'Cardinal'), Ussurian pear (*Pyrus ussuriensis*), callery pear (*P. calleryana*), Crimean linden (*Tilia euchlora*),

doubloons crabapple (*Malus* 'Doubloons'), prairiefire crabapple (*Malus* 'Prairiefire'), whitespire birch (*Betula populifolia* 'Whitespire'), Miyabei maple (*Acer miyabei*), weeping mulberry (*Morus alba* 'Pendula'), and saucer magnolia (*Magnolia soulangiana*).

Many of these new trees are additions to our Tough Trees for Tough Sites Collection and to our North American Plant Collections Consortium Northeast Oak Collection. Not only do these new plantings make the site more attractive, they serve as a great resource to homeowners and municipalities looking for plant selections for varied growing conditions.

Swat Team

Last but not least I am proud to say that with the help of the Pruning Swat Team (a group of dedicated and trained tree climbers who perform arboricultural work), we made a major difference in the appearance of our larger specimen trees in the collections area. Once a week we take out dead wood from our specimen trees to make them look better and foster good health. By removing the dead wood, the trees can seal the wounds, help stop the spread of decay, and use energy for food production and storage. Special thanks to our pruning volunteers: Art Coleman, Amy Howansky, Greg Yankosky, Sarah Breglia, and Michelle Bacatta.

WISH LIST

Equipment Wish List

We are looking for the following items (or estimated dollar amount to purchase items).

- Bird feeders and seed
 - Projector for PowerPoint presentations
 - Laptop computer
 - Picnic tables and benches (\$250)
 - Professional climbing saw (\$150)
 - DR brush mower (\$2500)
 - Hardback rakes, shovels, loppers, and mulch fork (\$200)
 - Trowels and other small gardening tools
 - Troy Built hand cart
- And always, the large tractor—
- A John Deere 790 (or machine of equal quality) 4wd, 30hp, with backhoe and loader (\$20,000)
 - Snow blower

Office Supplies

- File folders
- 8½ x 11 lined pads
- Hanging files
- Copier paper

Project Wish List

We are looking for volunteers familiar with the following tasks (or equivalent dollar amount to complete these projects).

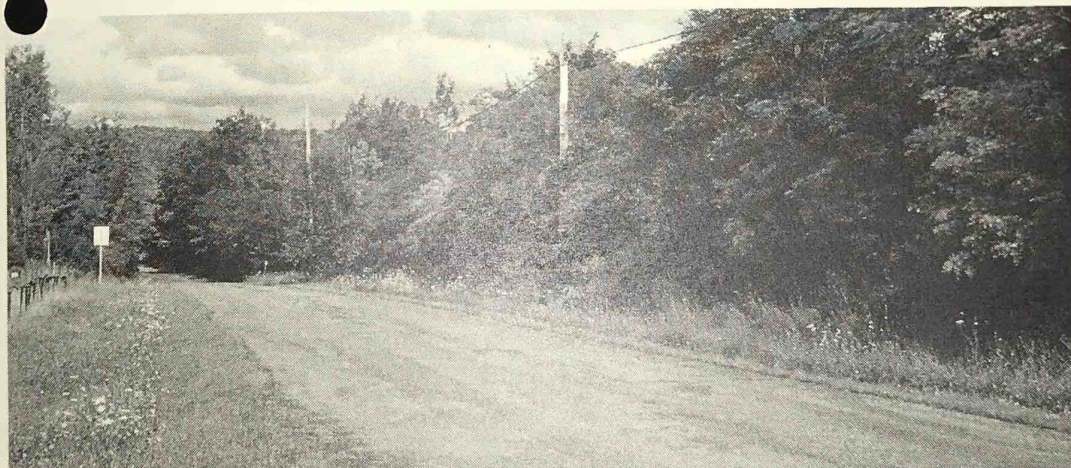
- Mechanic to work on our pickup trucks
- Stone walls around the greenhouse and walls around perennial garden need rebuilding. (\$800)
- Hand quilters for next year's raffle quilt

Donations

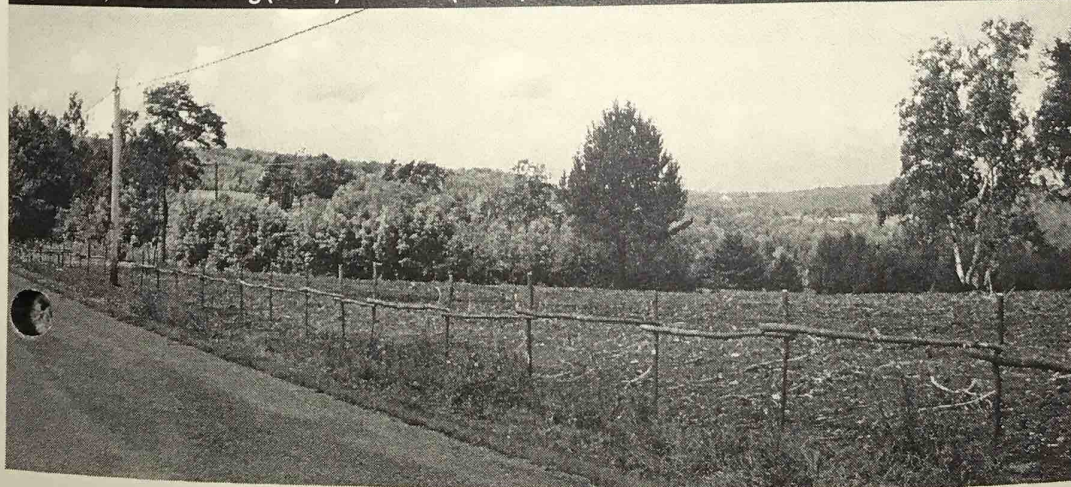
- \$1000 for a new entrance sign
- \$1000 (ea.) for printing new and updated brochures

Education Wish List

- Animal skins in good condition
- Skulls and bones in good condition
- Feathers and nests from wild birds
- Insect collections
- Local rocks and fossils
- Tree identification books
- Leaf identification books
- White enamel pans
- Tall rubber boots
- Magnifying glasses
- Walkie-talkies
- Environmental science tools



Lape Road, before clearing (above) and after. (below)



by Ed Miller, Chair of Native Plant Committee

Horsetails and club mosses are native plants important in our native ecosystems, but not all that familiar to people today. The native Americans, pioneers, photographers, and scientists had uses for these plants. Now we have commercial items that serve the same purpose (such as flash bulbs, scouring pads, and plastic holiday wreaths). Club moss, horsetails, and ferns are grouped together as pteridophytes. At one time the three orders were considered closely related. They are all vascular plants that reproduce by spores, and each order has representative species preserved as Devonian fossils.

Scouring Rushes

(Also Known As Horsetails)

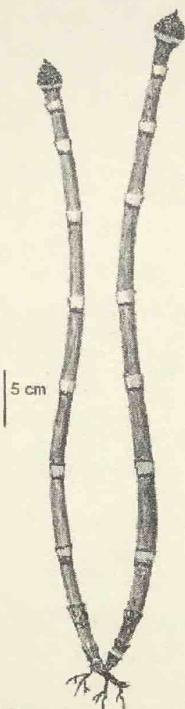
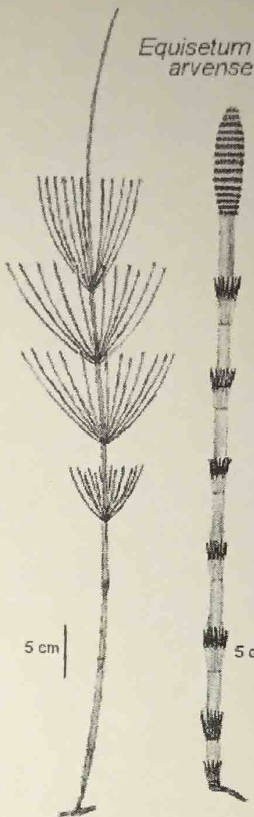
Horsetails consist of one order, one family, and one genus (*Equisetum*). And in that genus, Mitchell reports 13 species are native to New York. Many are hybrids or rare. All are characterized by jointed stems and scale-like leaves arranged in whorls. All local horsetails have silica on their stems and leaves and are tough and rough. Hence the common name of scouring rush.

Horsetails are most numerous in the temperate zone, rare in the tropics, and absent in Australia and New Zealand. Both stems and branches perform photosynthesis, except *E. arvense*, whose fertile stems contain no chlorophyll. The upright stems and branches are cylindrical and for most of our species hollow. Leaf sheaths

at the nodes are cut into sharply pointed teeth, which vary in shape and color and make a useful identification feature. The horsetail's spores develop in a cone (strobilus) at the top of the fertile stem. The tiny spores grow into either male or female prothalli (sometimes combined) depending on environmental conditions, such as light, substrate, fertility, and competition. The spores are green, containing chlorophyll and moisture. When ripe they live only a few days. They are enclosed in four coats. The outer coat splits into four ribbons which act as elaters. They aid in the spores' dissemination but also keep enough spores together so that after ger-

mination the tiny male and female prothalli can mate in the same tiny bit of moisture. A neat trick of having your cake and eating it. The male prothalli are tiny and more numerous than the much larger females which are "almost half inch in size," according to Cobb in his book. (Another author says that the females are more numerous!) The male organ produces several hundred sperm, which with the aid of cilia find their way through water to the female organs. The fertilized egg then develops as the sporophyte.

Cobb warns that the most common



Equisetum x ferrissi

horsetail (*E. arvense*) occurs in many forms. Experts list 13 to 17 forms and Cobb says there could be many more making it the species with the most variations from the typical. Thus unless a specimen is clearly one of the other six local species, it is probably the field horsetail (*E. arvense*).

Fern Allies with a History: Club Mosses

Commonly known as running pine or running cedar, club mosses are all evergreen perennial creeping plants. In some species the running stem is well below the surface. All have narrow sharply pointed stemless simple leaves. Club mosses are not really mosses, although they share some characteristics and some club mosses and the rock spike moss really do look like moss.

Until recently club mosses were all in one genus, *Lycopodium*. Now club mosses with sporangia in the axils of the green stem leaves are *Huperzia*.

The three genera in the *Lycopodium* family reproduce by tiny spores that after dispersal grow into a gametophyte (prothallus) with both male and female organs. The male produces sperm, which uses cilia to swim to the female, and the resultant fertilized egg grows into the sporophyte, which we recognize as a club moss. Most reproduction is asexual by creeping stems, giving the club moss its common names of running pine or running cedar. Although this reproduction is effective and large

THANK YOU

to Pam Kostbar-Jarvis for her donation in memory of Elnora Evers.

THANK YOU

TO OUR CORPORATE MEMBERS FOR THEIR GENEROSITY.

American Hotel,
Doug Plummer & Garth Roberts

Environmental Clearinghouse of
Schenectady

Glenbrook Farm, Viktoria Serafin

Gardener's Workshop

Keyserkill Studios, Inc.,
Tressa Vellozzi

Plantscapes Country Gardens

Temper Corp, John Rode

Young Home Heating Fuels,
Robert Young

Native Plant Committee Annual Report

Ed Miller, Chair of Native Plant Committee

The rains of this summer were good to the native plant collection. Of the 50 new species we added last spring, none succumbed to the drought! A couple died for other reasons.

We updated the directory of plant locations to include this year's additions. When you visit the Arboretum, pick up a copy of the directory at the entry kiosk in the parking lot, along with a brief description of the native plant collection. The location of each species is identified in feet from the beginning of the Willow Pond Trail.

The Bog Garden continues to flourish. Sphagnum mosses and pitcher plants, two important bog plants, are now thriving. To our surprise, a beautiful grass pink orchid appeared and bloomed about the first of July and shortly after a monkey flower was in bloom. Neither had been intentionally planted but had come along with woody bog plants from Win Bigelow's Adirondack bog.

Early this spring we improved the drainage of three sections of the Willow Pond Trail. We plan to make more improvements,

including the installation of larger drains in a critical area.

We have standardized our plant label system, using plastic printed labels attached to attractive painted hardwood stakes. Some labels have now weathered three winters without noticeable deterioration. Each of the 190 species of our collection has now been labeled with its botanical name and one of its common names.

We have not had as much damage from deer and rabbit browsing as we anticipated. Most of the small stuff has been protected by two-foot-high chicken wire cylinders. The pine family trees, which are generally taller and exhibited some damage the first winter, have since been protected with tall heavy-wire cylinders. While deer can still browse the tops, they didn't last year.

An audio guide of the Native Plant Collection has been recorded on compact disc and is available for sale in the gift shop. The shop also has two portable CD players for loan. An audio guide CD is available at the kiosk for loan when the gift shop is not open.

Grasetails and Club Mosses, continued from page 6
colonies of running pine are common, gathering this plant for wreaths has wiped it out in some localities. In our area we are lucky to be able to find large healthy colonies of the club moss species. Club mosses are notoriously difficult to transplant. A friend that had a pasture overgrown with *L. digitatum* gave me a dozen plants 20 years ago. None lived beyond the first winter. One of our species, shiny club moss (*Hyperzia lucidulum*), has bulblets growing in some of its leaf axils. When ripe, these drop off and start new plants.

Mitchell lists four species of *Hyperzia*, seven species of *Lycopodiella*, and 13 species of *Lycopodium* for New York State. Club mosses are a good group of plants to learn by their technical names, as the common names are really confusing. Howard lists the common names for two species as ground cedar, two species as stag horn, two as tree club moss, and two as ground pine.

Few ferns or their allies have a commercial value except as decoration. *Lycopodium* is an exception in that its spores are tiny, waterproof, and combustible. We used to sprinkle the spores on the surface of water to show eddies and flow patterns when doing experiments in our laboratory. In the early days of photography, *Lycopodium* spores were used to produce flash pictures by puffing air upwards through a funnel filled with spores. A nearby candle took care of ignition. The use of the term bulb for the camera's shutter release is an artifact of those days. Cobb says that the spores were also used as a body powder to reduce chafing and for coating pills.

CONGRATULATIONS

the winners of the plant sale raffle. Ronnie Drislane won the plant stand. Kathryn Provencher won the pen made from a branch of the Great Oak.

**Volunteer
Coordinator**

wanted

Important opportunity for those
great at coordinating


Contact Gloria Van Duyne—

518-875-6935

or email—landis@midtel.net for
more information.

Need a Tetanus Booster?

Gardeners, get your vaccination. The bacteria that causes tetanus is present worldwide and often found in soil and manure. Tetanus affects the nervous system, causes muscle spasms, and can lead to death by suffocation. This disease is usually associated with rusty nails and deep wounds. The bacteria can also enter the body through a scratch, pinprick and even a splinter. The majority of people who contract tetanus in the United States are over 40 years old and one third of cases come from garden, yard, or farm injuries. To prevent infection, get your tetanus booster every 10 years and wear gloves and protective clothing to prevent scratches and other injuries.



(518) 439-8105

**Sandra S.
Walck**
Garden Design

Installation
& Maintenance
with Ecological
Emphasis

20 Dykeman Road
Delmar, NY 12054

24 HOURS - 7 DAYS A WEEK

STRONG'S

TOWING & RECOVERY

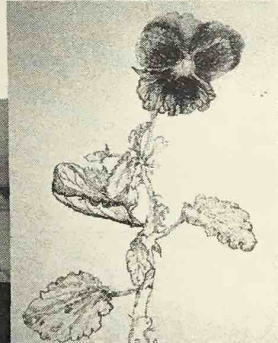
SHAWN STRONG
COBLESKILL, NY

518-231-6777
518-234-9209

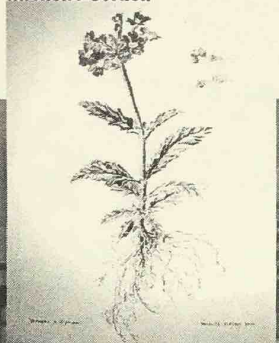
LANDIS
ARBORETUM
LAPE ROAD, BOX 186
ESPERANCE, NY
12066-0186

NON-PROFIT
ORGANIZATION
US POSTAGE
PAID
ESPERANCE, NY
PERMIT #6

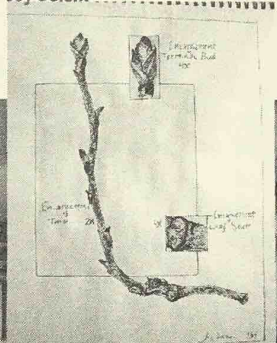
Lauraine Robinson



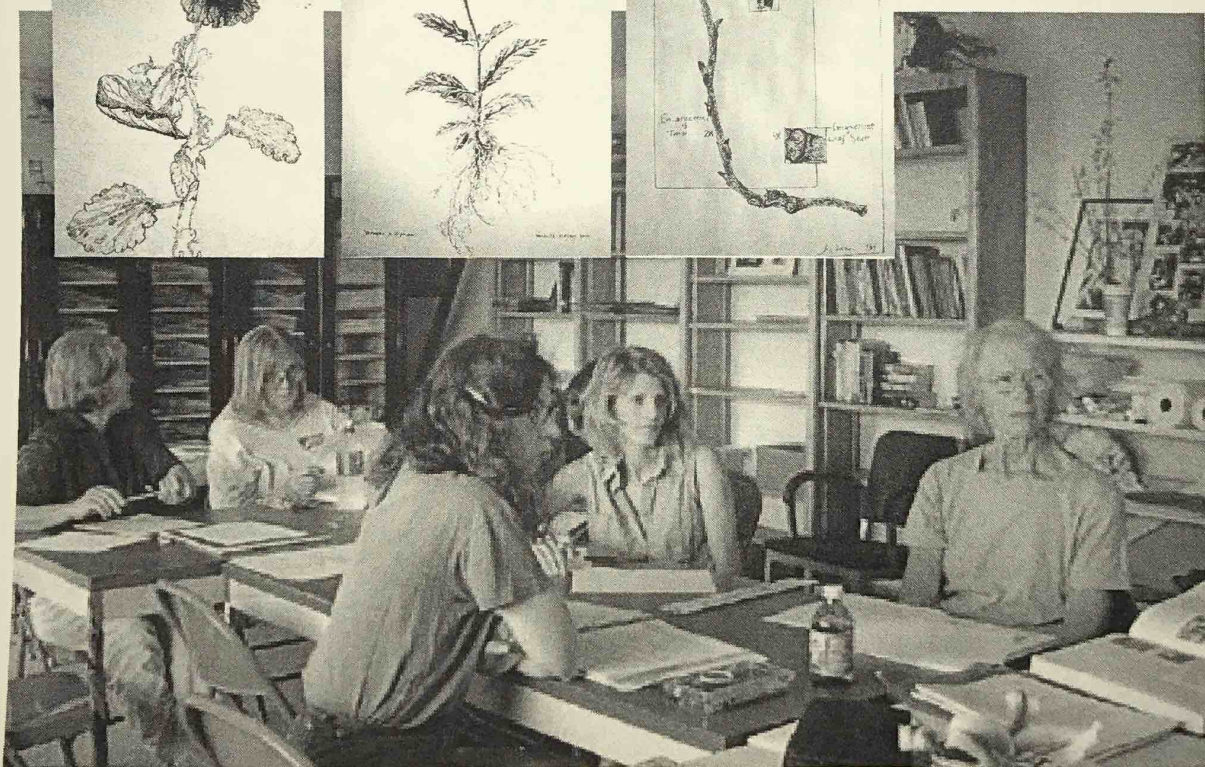
Michelle Cordell



Joy Scism



Botanical Drawing at the Landis Arboretum: July 2004



The Landis Arboretum... hosted a four-session workshop. The lovely setting and the fascinating gardens inspired us! Our lecture and workshop indoors at the Library and Herbarium didn't inhibit us too much, since we could always step outdoors for a quick break. (See large photo) Participants took their homework assignments very seriously indeed. Each week after our Saturday sessions, they diligently searched woods and fields for suitable subjects, and spent hours on their renderings. Instructor: Tressa Vellozzi

Photos and information, courtesy of Keyserkill Workshops. <http://keyserkill.com>