

THE TURK'S CAP

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY SPRING 2006

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NATURAL QUOTES

"Seeds, trafficked in little boxes with a plant inside and the subject of many a parable, are commonplace. Their ease is the art of nature, but seed-making in the first place involved so profound a reorganization of the plant's life cycle that its history is peculiarly botanical."

E. J. H. Corner, *The Life of Plants*, 1964

The DNPS Vision

The purpose of the Delaware Native Plant Society (DNPS) is to participate in and encourage the preservation, conservation, restoration, and propagation of Delaware's native plants and plant communities. The Society provides information to government officials, business people, educators, and the general public on the protection, management, and restoration of native plant ecosystems. The DNPS encourages the use of native plants in the landscape by homeowners, businesses, and local and state governments through an on-going distribution of information and knowledge by various means that includes periodic publications, symposia, conferences, workshops, field trips, and a growing statewide membership organized by the DNPS.

A GRASSY GREEN WELCOME TO OUR NEWEST MEMBERS

January through March

Susan & Timothy Human

Indiana Native Plant and
Wildflower Society

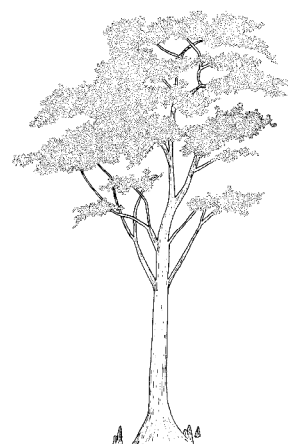
Rich & Cindy Ockels

HOW CAN I GET INVOLVED?

The Delaware Native Plant Society is open to everyone ranging from the novice gardener to the professional botanist. One of the primary goals of the society is to involve as many individuals as possible.

The DNPS is working on some significant projects at this time. We are undertaking reforestation projects at Prime Hook National Wildlife Refuge, at Blackbird Creek in New Castle County and Cedar Creek in Sussex County where we have installed tree tubes around newly sprouted seedlings. Help is also needed at our native plant nursery at the St. Jones Reserve with the monitoring and watering of plants along with many other nursery activities.

For more information, E-mail us at dnps@delawarenativeplants.org. Or visit our website at www.delawarenativeplants.org. Our website will have all of the past issues of *The Turk's Cap* along with a large section on native plants, as well as links to other environmental and plant related organizations.



THOUGHTS FROM THE EDGE OF THE GARDEN

DELAWARE ADOPT-A-WETLAND PROGRAM

At our bi-monthly meeting on Tuesday, March 21st, we had a great program given by Marlene Mervine and Gary Kraemer. Marlene and Gary work at the Aquatic Resources Education Center (DNREC). Marlene is the Volunteer Coordinator and manager of the Delaware Adopt-A-Wetland Program, which is a community based environmental stewardship program developed for the purposes of heightening the public's awareness of the functions and intrinsic value of wetlands and enlisting volunteers who will assist in monitoring and protecting these vital resources. The DNPS is looking for a site that we can adopt and manage, and we are looking for other people to take up this important environmental effort. If you know of a wetland that would be appropriate for DNPS to adopt, or would like to participate as an individual, contact our President, Bill McAvoy by email (william.mcavoy@state.de.us) for DNPS adoptions, or as an individual, contact Marlene Mervine at 302.653.2882.

PLANT RESCUE EFFORTS

When proposed development projects are reviewed by the Delaware Natural Heritage Program of the Delaware Division of Fish and Wildlife, there will be language in the response to certain projects that will hopefully help to save native plants at these sites. The language offers developers the opportunity to contact the DNPS to have us come out and "rescue" native plants on development sites before the bulldozers enter the property. We are hoping that we get a significant amount of replies to these offers. Periodically throughout the growing season, we will be sending out emails looking for volunteers to come out to sites around the state and dig up plants. The plants will then be taken back to the DNPS nursery

to be used in reforestation sites or sold at our sale.

NURSERY UPDATE

The nursery was opened up for the 2006 growing season on March 19th. We had a good turn out of volunteers and the plants looked good. We used our frost blankets again this past winter, and they worked great! We had an awfully mild, dry winter, so mortality was a little higher than I would have liked to see; around 10%. The biggest problem we had this year were the mice! They decimated many of the seeds we planted back in November for cold stratification.

And two big announcements for the nursery are that we are finally getting our own dedicated water line installed! This has been one of our most profound deficiencies in the nursery. Some volunteers and I will be assisting Reserve staff with installing PVC pipe with two hydrant heads that will make life a lot easier! And we also have another intern this Spring. Lauren Lyles is a Junior at Polytech High School and will be working with us until June or so.

CALL FOR A NOMINATING COMMITTEE

We are looking for three DNPS members to serve on a Nominating Committee. The Committee's duties shall be to prepare a slate of one or more candidates for the office of President and Secretary. This slate will be presented to the membership at the annual meeting on May 6.

CALL FOR POTENTIAL CANDIDATES FOR OFFICE

We are looking for members willing to serve as officers of the DNPS. At this year's annual meeting, a President and Secretary are to be nominated for election. Those elected shall serve two-year terms. 

Resources & Reviews

Fern Finder: A Guide to Native Ferns of Central and Northeastern United States and Eastern Canada ***(Nature Study Guides)***

Authored by Anne C. Hallowell. A pocket guide to identifying native ferns that grow in the U.S. Midwest and Northeast, and eastern Canada. Like other plant guides in the "Finders" series, "Fern Finder" is a dichotomous key, which leads the user step-by-step through a series of choices to the species being identified. Heavily illustrated with line drawings.

Resources & Reviews

Wildflowers and Ferns of Kentucky

Authored by Thomas G. Barnes. This non-technical guide—featuring more than five hundred dazzling full-color photographs by award-winning photographer Thomas G. Barnes—is the indispensable guide to the most common species of wildflowers and ferns in the Commonwealth. This guide references more than six hundred fifty species of flowers. High quality photographs and illustrations accompany each plant's common and scientific name, plant family, habitat, frequency, and distribution throughout Kentucky. Organized by flowering season, color, and habitat, *Wildflowers and Ferns of Kentucky* is an essential addition to the library or field pack of the botanist and all nature enthusiasts.

FEATURE ARTICLE

PLANTING A NATIVE FERN GARDEN

(Editor's note: This is an excerpt of two articles from the Vermont Cooperative Extension, and the University of Georgia Cooperative Extension Service. Reprinted with permission).

One of the pleasures of native fern gardening is propagating the plants and getting them established. Plants for a small, home fernery may be successfully transplanted from their native site, but only if they will be destroyed by development and you have permission to move them. It is better to share plants from a friend's fern garden or purchase ones that have been grown commercially. Never attempt to transplant rare species. There is too great a chance of losing them. Such species generally may be propagated by spores without damaging the plant. Instead of growing from seed like most flowering plants, ferns come from a single spore that develops into the sporophyte. The fern, as we know it, is the sexless or sporophyte generation. Spores are born in a spore case. The case contains many individual spores and is usually found on the underside of a leaf (frond) or on separate stalks. Usually, gardeners and greenhouse producers don't reproduce indoor ferns from spores. Most indoor ferns are separated into several pieces by root division.

Ferns that develop slender rhizomes with leaves at frequent intervals usually can be increased by dividing the rhizome into sections with a few leaves to a section. When planted in the proper place and kept well watered and protected, each division should become established and thrive.

Ferns that form a dense crown usually can be increased by division, which is taking portions of a less-spreading type of rhizome. Care and thoughtful handling are essential. It is especially important in transplanting or dividing ferns to be careful that the roots do not become the least bit dry or unduly exposed. The transplanted plant or plant part should be placed in the soil at the same depth at which it was

growing. The soil should be kept well watered and generously supplied with leaf mold. This prevents undue drying of the roots, helps control moisture, and keeps the soil cool. Do not mix an excess of leafy material into the soil -- this causes the soil to be too open. The fern roots should be in mineral soil containing enough rotted and finely divided leaf material to keep from packing and to increase the water-holding capacity. Leaf mulch should be put on top of this soil to check evaporation and to keep the soil cool around the roots.

The bladder fern may be propagated from the dark bulblets that develop on the lower sides of the leaves. Under natural conditions, fully developed bulblets fall onto the moist soil and develop into plants. If bulblets are placed on moist soil in flower pots or other suitable places, plants can be grown under artificial conditions. The bulblets may be planted where desired, as long as proper conditions are maintained. The bulblets should not be buried, but should be pushed carefully into the moist surface and moisture maintained.

The walking fern propagates readily by rooting the slender, leaf tip. Plantlets that have started this way may be found in natural-growing colonies and can be transplanted into suitable locations.

The hay-scented fern, bracken, New York fern, and, to a lesser extent, sensitive fern have the tendency to spread in the garden once they become established. The sensitive fern is the most attractive of the group and is less likely to become invasive.

Even though most ferns used for indoor culture are native to the tropics or subtropics, they for the most part prefer a cool temperature and a high level of moisture in the air (humidity). In the woodlands or tropics, ferns are found under rather dense canopies of trees or large woody plants. Some species are native to rather dry climates that have periods of heavy rainfall. Usually these periods of

Continued on page 5

GARDENING WITH NATIVE PLANTS

BEACH PLUM (*PRUNUS MARITIMA*)

NATURAL HISTORY

Spring has sprung, the grass has riz, I wonder where them flowers iz? Well, take a walk along the beach in late April to early May and you will surely know. It is in the early spring before the leaves appear, that the beach plum or *Prunus maritima* smothers itself with clusters of small white mildly fragrant flowers to the delight of coastal visitors. The beach plum is common among coastal dunes from the coast of New Brunswick to northern coastal Virginia, often appearing in dense, seemingly well-pruned clusters up to 8 feet wide and often reaching 6 feet or more in height. The beach plum is perhaps the perfect shrub for attracting wildlife. In spring its early flowers are a magnet for small bees, butterflies, and other insects that rely on its nectar. As leaves appear, the dense low growth is a favorite nesting site for numerous birds and in fall as the rich blue-black fruits begin to ripen, grosbeaks, jays, cardinals and other birds, raccoons, rabbits, and foxes relish them for their nourishing pulpy flesh. In winter, though the leaves of the beach plum have long disappeared, the dense woody growth is extremely popular for sparrows, cardinals, finches and other birds seeking shelter from the strong coastal winds. Of course human hunter-gatherers also seek out the prized fruits for use in jellies, jams, pies and libations!

WHERE TO GROW

The beach plum is a wonderful seaside shrub that is tolerant of both salt spray and sandy soils. So if you live near the beach, the beach plum is a natural for your landscape. Not only does it provide year around interest, it is also valued as a good sand binder and for it's erosion preventive qualities. However, you don't need a beachfront home to enjoy the beach plum prefers many types of soil with a pH

ranging from acid to alkaline and will thrive with little to moderate amounts of moisture. Give it plenty of room, for it will grow quickly and has a tendency to sucker and thus will spread providing a dense hedge with a springtime floral display that is unmatched for its abundant, showy blossoms.

PROPAGATION AND CARE

Beach plum plants grown in the wild will transplant very poorly, therefore propagation is best accomplished from either seed or rooted cuttings. From seed, pick fruits as soon as they ripen and clean ripe plums of all pulp. Plant the seed in flats or small community pots, 1/2 inch deep in a mixture of sand and peatmoss. Cover the flat/pot with a fine mesh screen to protect from mice, and place in a cold frame out of direct sunlight as soon as possible. During prolonged dry spells, the seeds may require occasional watering. The seeds require a minimum two to three months cold stratification and can be rather slow to germinate, sometime taking up to 18 months before sprouting. Scarifying the seeds lightly before planting may improve germination. Once the seedlings have developed four leaves gently pull them out of the flat and plant into individual pots. Grow them in a greenhouse or cold frame for their first winter and plant them out in late spring or early summer of the following year. Mid-July is the best time to take stem cuttings for propagation. Take cuttings of half ripe wood and treat with Roottone and place in a mixture of sand and peatmoss. Cuttings will do best if placed under mist or in a closed plastic bag placed in a location where it will receive good light but not direct sunlight. The bag should be opened occasionally to allow air circulation. When cuttings have developed a good root system, transplant them into three- to four-inch pots to grow on. The beach plum has hermaphroditic flowers, so there is no need for male and female plants to produce fruit.

Resources & Reviews

A Field Guide to Ferns and their related families : Northeastern and Central North America

Authored by Boughton Cobb et al. A Peterson Field Guide Series book with more than 500 species of north-eastern and central North American ferns that are described and illustrated, with helpful details such as color, leaf shapes, measurements, and root forms. An illustrated key aids in quick identification.

Resources & Reviews

American Fern Society

The American Fern Society is over 100 years old. With over 900 members worldwide, it is one of the largest international fern clubs in the world. It was established in 1893 with the objective of fostering interest in ferns and fern allies. To this end it encourages correspondence and the exchange of information and specimens between members via its newsletter the Fiddlehead Forum, and through field trips. They also publish the *American Fern Journal*. Information can be found at their website: <http://amerfernsoc.org>.

LORE

The beach plum was used by Native Americans for its fruit either eaten fresh or dried for later use during the winter months and dyes were made from both the leaves and fruits. Today fruits are collected both from wild and cultivated stocks. The size and quality of fruits may vary widely and people zealously protect their 'secret spots' for collecting this treasured fruit.



Bob Edelen, DNPS Member



USDA Plants Database

FEATURE ARTICLE

Continued from page 3

rainfall occur during hot weather, thus providing a cooling effect. When ferns are grown outdoors during summer, they should be located in the cooler areas of the garden, usually in deep shade or on the north side of the house or a garden structure. Never expose ferns to full sun in summer.

When you pot, remember that a small fern in a large container looks out of place and will be more subject to problems because of moisture excesses, etc. Start small ferns in small pots. Shift them to the next size pots as they become crowded.

Inexperienced gardeners repot ferns just as the pots seem to be three-fourths full. However, you

should wait until the plant seems to be spilling out of the pot before repotting. Remember that some ferns grow rapidly, while others are extremely slow. In time, you will learn the growth characteristics of the ferns you enjoy.

Regardless of the pot you use, you will be more successful if the containers have drainage holes. In potting, place an inch of gravel or clean pieces of broken pots in the bottom of your container. This keeps the drainage holes from clogging.

To know when to water ferns and all other plants, you must develop a sense of feel of the soil. This is the only way to determine when to water. There are no hard and fast rules.

The basics of growing ferns in the landscape are the same as growing them in pots. Site selection in terms of drainage and light exposure is critical to production of high-quality ferns. Ferns require well-drained soil. Sandy soils or humus soils with good surface drainage are preferred. Heavy clay soils or soils with a shallow clay pan should be avoided or amended to provide good aeration and drainage. Elevated beds with amended media are excellent sites in the landscape because they ensure good aeration under most conditions. Growing mediums vary considerably. However, all good mixtures have several things in common. They are well drained because of different components like coarse sand, gravel and charcoal. Most mixtures contain considerable organic matter also. Light intensity is another key factor in site selection for plantings of ferns. Ferns either prefer or require indirect light for production of high-quality fronds (leaves). They are excellent plants for shady areas where other plants will not grow well. Avoid direct exposure to afternoon sun. Outdoor planted ferns can be divided by separating clump or cutting off established runners. The best time for dividing outdoor ferns is after the first frost through November. This gives the transplants plenty of time to regenerate roots.



2006 DNPS Annual Meeting

When: Saturday, 6 May 2006, 10 AM to approximately 2 PM

Where: Smyrna Opera House, on the corner of Main Street and South Street in Smyrna. Main Street is one block West of US Route 13 (see map & directions below).

Agenda: 10:00 to 10:15 AM: Opening remarks, Bill McAvoy, President, Delaware Native Plant Society

10:15 to 11:00 AM: Presentation on the Blackbird Millington Conservation Corridor by Roger Jones, Director of the Delaware Chapter of The Nature Conservancy.

11:00 to 11:15 AM: Break

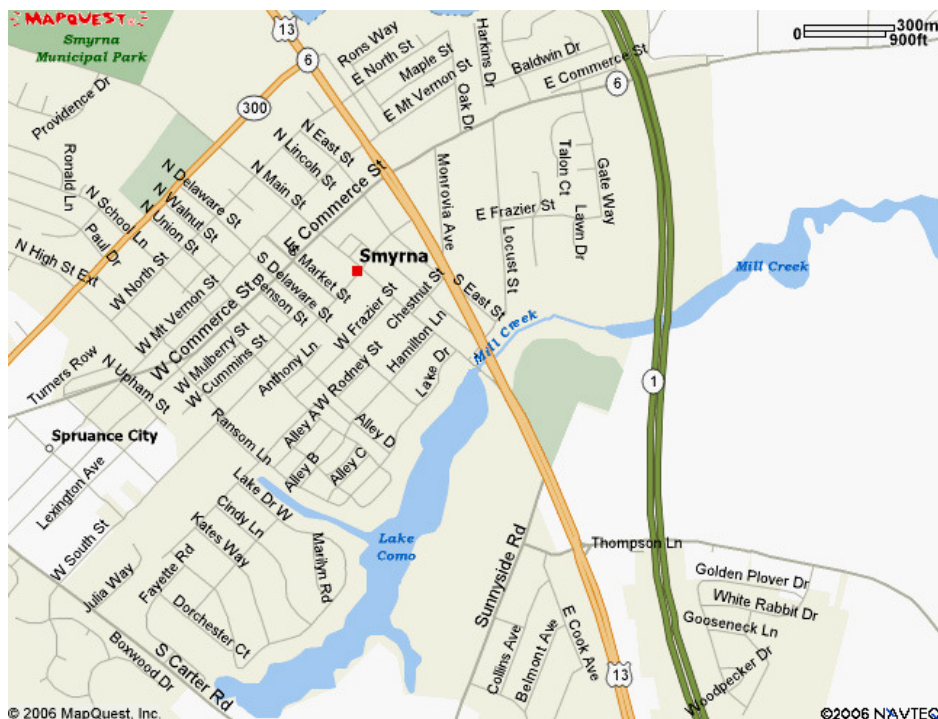
11:15 to 12:00 noon: Annual Meeting of the Delaware Native Plant Society (Presentation of the Keith Clancy Habitat Restoration Award, Presentation on Featured Project, Report of the Nominating Committee, Election of Officers, Other Business)

12:00 to 1:00 PM: Lunch - Lunch is by reservation only. Please call 302.653.6449 for more details, and/or to order lunch.

1:00 to 2:00 PM: Optional field trips to either the Blackbird Millington Conservation Corridor Area, or Big Oak County Park (site of the Habitat Restoration Award Project)

Directions from the North: exit from Rt.1 at the North Smyrna exit and take Rt. 13 South to Commerce St (Rt 6), turn right on to Commerce St. continue to Main Street and take a left on to Main St. - the Opera House is on the right at the intersection of South Street and Main Street.

Directions from the South: exit from Rt.1 at the South Smyrna exit and take Rt. 13 North, take a left on to Main Street, continue on Main St, the Opera House will be on the left at the intersection of Main St. and South Street.



Upcoming Events

SATURDAY, 29 APRIL 2006—AG DAY AT UNIVERISTY OF DELAWARE IN NEWARK, DE. FROM 10 AM TO 4 PM ON THE GROUNDS OF TOWNSEND HALL ON S. COLLEGE AVE. ON THE WEB AT [HTTP://AG.UDEL.EDU/EXTENSION](http://ag.udel.edu/extension) FOR MORE INFORMATION.

SATURDAY, 6 MAY 2006—DELAWARE NATIVE PLANT SOCIETY ANNUAL MEETING. DETAILS ON PAGE 6.

SATURDAY, 6 MAY 2006—ADKINS ARBORETUM SPRING NATIVE PLANT SALE FROM 9 AM TO 1 PM. ON THE WEB AT [WWW.ADKINSARBORETUM.ORG](http://www.adkinsarboretum.org) FOR MORE INFORMATION.

SATURDAY & SUNDAY, 6 & 7 MAY 2006—DELAWARE NATURE SOCIETY ANNUAL NATIVE PLANT SALE AT COVERDALE FARM IN GREENVILLE, DE. FEATURES OVER 275 RARE, UNUSUAL, AND FAVORITE VARIETIES OF NATIVE WILDFLOWERS, TREES, SHRUBS, FERNS AND AQUATIC PLANTS. ON THE WEB AT [HTTP://WWW.DELAWARENATURESOCIETY.ORG/NPS.HTML](http://www.delawarenaturesociety.org/nps.html) FOR MORE INFORMATION.

FRIDAY, 19 MAY 2006—ARBORETUM SPRING GARDEN SYMPOSIUM FROM 9 AM TO 4 PM. GUEST SPEAKERS ARE DR. ALLAN ARMITAGE ON “NATIVE PLANTS FOR AMERICAN GARDENS” A NEW BOOK COMING BEING RELEASED IN 2006 BY TIMBER PRESS, AND JULIE MOIR MESSERVY, ACCLAIMED LANDSCAPE DESIGNER, AUTHOR, LECTURER ON OUTDOOR SANCTUARIES THAT FEED THE SPIRIT. HER NEW BOOK IS “OUTSIDE THE NOT SO BIG HOUSE”. ON THE WEB AT [WWW.ADKINSARBORETUM.ORG](http://www.adkinsarboretum.org) FOR MORE INFORMATION.

SATURDAY, 20 MAY 2006—FIELD TRIP TO FLINTWOODS PRESERVE. HOSTED BY BILL HALDEMAN AND LED BY JANET EBERT AND JACK HOLT. FLINTWOODS PRESERVE, LOCATED IN CENTREVILLE, DELAWARE, IS A SPECTACULAR RESOURCE THAT PROVIDES HABITAT FOR NEO-TROPICAL SONGBIRDS AND RARE WILDFLOWERS AMONG TOWERING, MATURE TREES. THE CANOPY OF GIANT TREES INCLUDES OAK, HICKORY, BEECH, AND TULIPTREES AND TOWERS OVER MOUNTAIN LAUREL, SPICEBUSH, AND NATIVE AZALEA. SEVENTEEN SPECIES OF FERNS HAVE BEEN IDENTIFIED INCLUDING UNCOMMON MAIDENHAIR AND POLYPODY FERNS AS WELL AS NUMEROUS SPECIES OF WILDFLOWERS INCLUDING THE SHOWY ORCHIS, BLUE COHOSH AND TAWNY IRONWEED.

1-3 JUNE 2006—NATIVE PLANTS IN THE LANDSCAPE PLANT CONFERENCE AND SALE AT MILLERSVILLE UNIVERSITY. ON THE WEB AT [WWW.MILLERSVILLENATIVEPLANTS.ORG](http://www.millersvillenativeplants.org) FOR MORE INFORMATION.

SATURDAY, 17 JUNE 2006—SOFTWOOD PROPAGATION OF NATIVE PLANTS WORKSHOP. LEARN HOW TO PROPAGATE PLANTS FROM SOFTWOOD CUTTINGS USING ROOTING HORMONE AND THE CORRECT TECHNIQUES. FROM 9:30 AM TO 12 NOON AT THE MT. CUBA CENTER AT 3120 BARLEY MILL RD., HOCKESSIN, DE, 19807. LIMITED TO 20 PARTICIPANTS- MEMBERS OF DELAWARE NATIVE PLANT SOCIETY (RESERVATIONS REQUIRED). \$15.00 FEE FOR MATERIALS. MORE DETAILS TO COME AT A LATER DATE. CALL 302.653.6449 FOR MORE DETAILS AND TO REGISTER.

JULY 2006—THE DNPS JULY EVENT WILL BE ANNOUNCED AT A LATER DATE.

SUNDAY, 23 SEPTEMBER 2006—FIELD TRIP TO A SERPENTINE BARREN IN NOTTINGHAM COUNTY PARK, CHESTER COUNTY, PENNSYLVANIA. TRIP IS FROM 10 AM TO 12:30 PM AND WILL BE LED BY JACK HOLT AND JANET EBERT – PICNIC DINNER PROVIDED. RESERVATIONS REQUIRED. CALL 302.653.6449 FOR MORE DETAILS AND TO REGISTER.

DNPS BI-MONTHLY MEETINGS FOR 2006—ARE CURRENTLY SCHEDULED FOR 17 JANUARY, 21 MARCH, 6 MAY (ANNUAL MEETING), 18 JULY, 19 SEPTEMBER, 4 NOVEMBER (NOT A MEETING, BUT THE ANNUAL PLANT SALE). ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT THE ST. JONES RESERVE AT 7 PM, UNLESS OTHERWISE NOTED.

Membership Application

DELAWARE NATIVE PLANT SOCIETY

Member Information

Name:

Business Name or Organization:

Address:

City and Zip Code:

Telephone (home/work):

E-mail address:

- ☐ Full-time Student \$10.00
- ☐ Individual \$15.00
- ☐ Family or Household \$18.00
- ☐ Contributing \$50.00
- ☐ Business \$100.00
- ☐ Lifetime \$500.00
- ☐ Donations are also welcome \$ _____

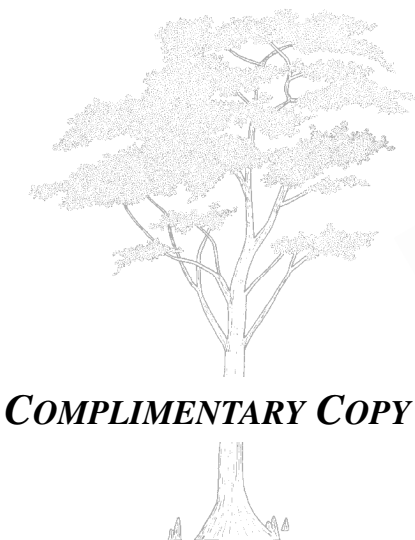
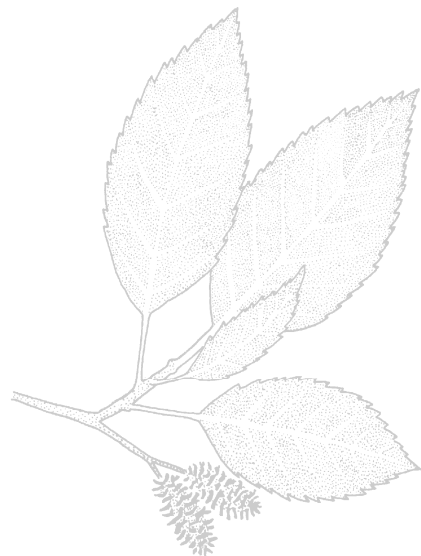
Membership benefits include:

- * The DNPS quarterly newsletter, The Turk's Cap
- * Native plant gardening and landscaping information
- * Speakers, field trips, native plant nursery and sales

Total Amount Enclosed: \$

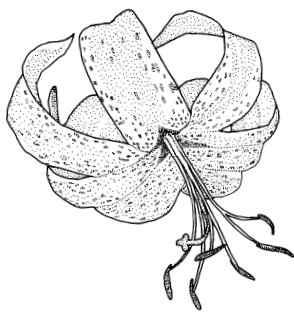
**Make check payable to:
DE Native Plant Society
P.O. Box 369, Dover, DE 19903**

**DELAWARE NATIVE PLANT SOCIETY
P.O. BOX 369
DOVER, DELAWARE 19903**



COMPLIMENTARY COPY





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NATURAL QUOTES

"Rain is grace; rain is the sky condescending to the earth; without rain, there would be no life."

John Updike

The DNPS Vision

The purpose of the Delaware Native Plant Society (DNPS) is to participate in and encourage the preservation, conservation, restoration, and propagation of Delaware's native plants and plant communities. The Society provides information to government officials, business people, educators, and the general public on the protection, management, and restoration of native plant ecosystems. The DNPS encourages the use of native plants in the landscape by homeowners, businesses, and local and state governments through an on-going distribution of information and knowledge by various means that includes periodic publications, symposia, conferences, workshops, field trips, and a growing statewide membership organized by the DNPS.

A PLEASANT DRONING OF SUMMER INSECTS GREETING TO ALL OUR MEMBERS

April through June

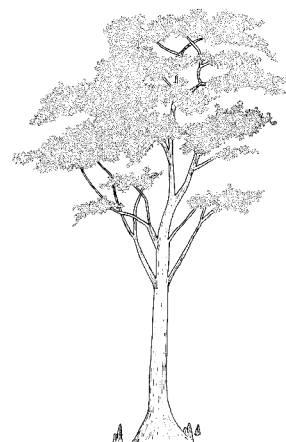
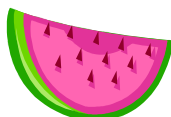
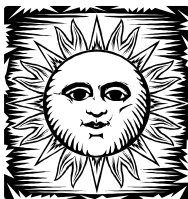
No new members this quarter

HOW CAN I GET INVOLVED?

The Delaware Native Plant Society is open to everyone ranging from the novice gardener to the professional botanist. One of the primary goals of the society is to involve as many individuals as possible.

The DNPS is working on some significant projects at this time. We have completed four reforestation projects in the Prime Hook area, at Blackbird Creek in New Castle County and Cedar Creek in Sussex County where we have installed tree tubes around newly sprouted seedlings, and are performing annual management of the sites. Help is also needed at our native plant nursery at the St. Jones Reserve with the monitoring and watering of plants along with many other nursery activities.

For more information, E-mail us at dnps@delawarenativeplants.org. Or visit our website at www.delawarenativeplants.org. Our website will have all of the past issues of *The Turk's Cap* along with a large section on native plants, as well as links to other environmental and plant related organizations.



THOUGHTS FROM THE EDGE OF THE GARDEN

PLANT RESCUE EFFORTS

When proposed development projects are reviewed by the Delaware Natural Heritage Program of the Delaware Division of Fish and Wildlife, there will be language in the reviews of certain projects that will offer developers the opportunity to contact the DNPS to have us come out and "rescue" native plants on development sites before the bulldozers enter the property. The plants will then be taken back to the DNPS nursery to be used for our reforestation sites and to be sold at our plant sale. Volunteers are also welcome to take plants home with them. Thus far we have not gotten any leads on suitable sites to do rescues. If any members know of forested sites that are going to be developed, please contact us.

CALL FOR A SECRETARY

We are looking for one member to become the Secretary of the DNPS. Rick Mickowski has been our Secretary now for two consecutive terms, and he would really like to step down from the position. The Secretary would be responsible for attending as many meetings as they can and using the DNPS laptop to take minutes. Then they would need to refine what they wrote, send the document to a select group of people for review, then send the minutes out to the entire membership once completed.

SEED COLLECTING GUIDELINES

In this issue of the Turk's Cap you will find enclosed a set of guidelines to be used for seed collecting. We are always looking for volunteers to collect seeds for the nursery, and these guidelines will make it easier for you. If anyone does collect seeds and would like to donate them to the nursery, please contact Eric Zuelke.



EVENT HIGHLIGHTS

2006 ANNUAL MEETING

The 2006 annual meeting was held at the Smyrna Opera House. We had a good turn out this year and it was a very educational day. We started off with a presentation by Roger Jones, Director of the Delaware Chapter of The Nature Conservancy.

Roger spoke about the The Nature Conservancy's conservation efforts in the Blackbird-Millington Corridor. You can learn more about this important area and the conservation efforts going on there at <http://www.nature.org/wherewework/northamerica/states/delaware/preserves/art12413.html>.

We then had a presentation of two conservation awards. The Delaware Native Plant Society's newly created Keith Clancy Habitat Restoration Award was given to Carl Solberg for all of his conservation work over the years. Carl works for the Kent Co. Parks District and has been instrumental in many conservation victories over the years. His latest project was the Big Oak County Park, for which this award was given. The award was also given to Keith Clancy for his work with the Delaware Native Plant Society.

We then had a short business meeting, election of officers (Bill McAvoy remains our President, and we are still searching for a new Secretary), and a fantastic, catered lunch.

Then we took a great field trip to a private property in the Blackbird-Millington Corridor to see first-hand some of the things that Roger Jones had spoken of in his presentation. The property is owned by Katherine Ratledge who generously allowed our group the chance to visit.

FIELD TRIP TO FLINTWOODS PRESERVE

This field trip was held on 20 May 2006, was hosted by Bill Haldeman, DNPS member and Director of Flintwoods Preserve, and was led by our botany gurus Jack Holt and Janet Ebert. Flintwoods Preserve is privately owned preserve with a conservation easement located in Centerville, DE. We observed some great plants including *Adiantum pedatum* (maidenhair fern), *Aplectrum hyemale* (puttyroot) which is a rare species in Delaware, *Panax trifolius* (dwarf ginseng), *Hamamelis virginiana* (American witch-hazel), *Lindera benzoin* (spicebush), and *Cardamine concatenata* (cutleaf toothwort). We walked the trails for approximately 3 hours and along with the plants, counted quite a number of birds (including a pair of hooting barred owls), frogs, snakes, and salamanders.

We'd like to thank Bill Haldeman for hosting us, and Jack and Janet for bestowing upon the group once again, their years of plant wisdom.

Continued on page 6

Resources & Reviews

Return to Wild America: A Yearlong Search for the Continent's Natural Soul

Authored by Scott Weidensaul. In 1953, birding guru Roger Tory Peterson and noted British naturalist James Fisher set out on what became a legendary journey—a one hundred day trek over 30,000 miles around North America. They traveled from Newfoundland to Florida, deep into the heart of Mexico, through the Southwest, the Pacific Northwest, and into Alaska's Pribilof Islands. Two years later, *Wild America*, their classic account of the trip, was published. Naturalist Scott Weidensaul retraces Peterson and Fisher's steps to tell the story of wild America today. How has the continent's natural landscape changed over the past fifty years?

Resources & Reviews

Plant

Authored by Janet Marinelli. For gardeners and horticulturists concerned with the environmental impact of their activities. A groundbreaking reference, *Plant* is a new-generation encyclopedia designed to provide environmental and horticultural information so that gardeners can make the right decisions about what to grow in their gardens. Published in association with the Brooklyn Botanic Garden and written by an international team of botanists.

FEATURE ARTICLE

HARVEST THE RAIN

(Editor's note: This is an article from *Mother Earth News* that was adapted by them from the publication *Environmental Building News*. Reprinted with permission).

Rainwater harvesting systems can be as simple as directing gutters to a lidded garbage can or as complex as a concrete cistern, roof washer and filtration system. But whatever your application, rest assured that you'll be getting some of the purest - and cheapest - water around.

Why Rainwater?

Rainwater can be used for potable water (drinking, cooking, bathing) or nonpotable uses such as landscape irrigation, livestock watering and washing. Collecting and using rainwater has numerous benefits, ranging from improved water quality to reduced stress on underground aquifers.

"All water is rainwater," rainwater systems enthusiast and author Richard Heinichen is fond of saying. And indeed, he's right: All our water, whether sucked from an aquifer, river or well, or harvested from a rooftop, once was cloud-borne.

But after it falls from the sky, rainwater percolates through the earth and rocks, where it picks up minerals and salts. As Heinichen points out, in many cases, this water also collects other contaminants such as industrial chemicals, pesticides and fecal coliform bacteria found in the soil. Captured before it hits the ground, rainwater is free of many pollutants that plague surface and underground water supplies and, according to the Texas Water Development Board, "almost always exceeds [the quality] of ground or surface water."

Rainwater typically has very low hardness levels, which reduces the use of soaps and detergents, and eliminates the need for a water softener. Fewer minerals also saves wear and tear on your plumbing fixtures.

Stored rainwater also is a good standby in times of emergencies such as power outages or during periods of extreme drought when wells dry up. In some areas where water supplies may not be available or dependable (or may be prohibitively expensive), collected rainwater is sometimes the least expensive option and can easily be less expensive than bottled water. Rainwater harvesting reduces the impact on aquifers, lessening the demand on ecologically sensitive or threatened aquifers. Collecting some of the rainwater falling on impervious surfaces also minimizes erosion and flooding: On some lots, as much as 50 percent of the land area is covered by roof surface. Because it doesn't have to be treated, pumped or distributed through a complex network, harvested rainwater saves energy and the use of chemicals. Some municipal water users

sometimes switch to harvested rainwater as a way to avoid chlorination and fluoridation treatments.

Capture the Cloud Juice

Rain barrels, the simplest rainwater collection devices, can save thousands of gallons of tap water each year, and save money and energy, too. (Lawn and garden watering typically consume 40 percent of total household water use in the summer.) Your plants also will love the warm, soft, chlorine-free rainwater.

Ready-made rain barrels, most commonly made from UV-protected plastic and fitted with lids and screens, are available in capacities ranging from 50 to 65 gallons. With a spigot and carefully fit top and screen, wooden wine barrels and recycled food-grade plastic barrels also can be made into water catchment devices. Maryland's Green Building Program Web site provides step-by-step plans on making your own rain barrel with a recycled barrel, a vinyl hose, PVC couplings and a screen grate.

The best barrels are made of an opaque material (metal, wood or colored plastic) to prevent light transmission and inhibit algae and bacterial growth. To stop barrels from becoming mosquito breeding grounds, fasten a tight-fitting top to them, and screen the ends of downspouts leading into the barrels. As an added measure of protection, add mosquito dunks (which release *Bacillus thuringiensis* var. *israelensis*, a biological agent toxic to mosquito larvae) to your barrels (but make sure to label barrels "Not Potable Water"). Tahoma, Washington, resident Dan Borba, who has been harvesting rainwater since 1999, adds a tablespoon of vegetable oil to his barrels' stored rainwater. The oil, he says, coats the water's surface and kills larvae by depriving them of oxygen.

Home Systems

For rainwater harvesting systems to be practical as the sole household water source, average annual rainfall of at least 24 inches is recommended, says Gail Vittori of the Center for Maximum Potential Building Systems in Austin, Texas. The entire eastern half of the United States, from the southern tip of Texas to northwestern Minnesota, meets this requirement, as does much of California, western Oregon and Washington, significant pockets throughout the Rocky Mountains and even areas in Arizona.

If you just want a system to offset your water use, a small system usually can be designed for a few thousand dollars. Ole and Maitri Ersson of Portland, Oregon, installed their 1,500-gallon rainwater system, which includes a plastic cistern, well pump, roof washer and UV sterilizer, for less than \$1,500. A state-of-the-art rainwater harvesting system (adequately sized

Continued on page 5

GARDENING WITH NATIVE PLANTS

TRUMPET HONEYSUCKLE (*LONICERA SEMPERVIRENS*)

NATURAL HISTORY

It's now summer and the spectacular flight of hummingbirds may be found anywhere the beautiful *Lonicera sempervirens* or trumpet honeysuckle can be found. In fact this magnificent bloomer attracts hummingbirds, butterflies, bees and other nectar feeders throughout the late spring, summer, and fall months. Beginning in late May, trumpet honeysuckle is covered with thousands of showy, 2-inch, coral-colored, trumpet-shaped flowers that act as a magnet to hummingbirds. It is on the Trumpet honeysuckle that we search each year for the first early migrants and are never disappointed! After the initial burst of spring color, when other spring bloomers have long since given up their showy flowers, the trumpet honeysuckle continues to produce numerous nectar-rich blossoms right up through the first light frost. Not only does the trumpet honeysuckle attract numerous nectar feeders, it produce an abundance of bright red ¼ inch berries that attract a host of birds including: robins, thrushes, bluebirds, gray catbirds, cedar waxwings, cardinals, finches, sparrows, mockingbirds, warblers, brown thrashers, blue jays and others. The trumpet honeysuckle can be found in canopy gaps, open woodlands, along edges, fence rows and roadsides throughout the Eastern United States from Texas north to Missouri and east to the eastern seaboard. In Delaware, it is uncommon, but still may be found in isolated areas within the Piedmont and coastal plain. The name *Lonicera* honors the German herbalist Adam Lonitzer and *sempervirens* refers to its evergreen habit that provides some shelter for birds and small mammals in milder climates.

WHERE TO GROW

Trumpet honeysuckle is a vigorous, woody, twining vine that typically grows 10-15' (less frequently to 20') and is a must have for gardeners wishing to attract birds and butterflies to their landscape! Unlike its weedy relative, Japanese honeysuckle (*L. japonica*), trumpet honeysuckle will not spread out of control, and its sparse vines won't strangle your prize shrubs. It is easily transplanted and grown and is a vigorous grower that will usually bloom within 2 years of planting. It prefers moderately moist soils but tolerates drought well and also tolerates a moderate range of pH from alkaline to acid. Trumpet honeysuckle may be planted as a ground cover, but it is best grown on a trellis, fence, arbor, or gazebo where it may climb. It may need training at first but once it becomes established it will

eagerly climb whatever platform you provide. Trumpet honeysuckle will thrive in light shade though full sun, but for best flower and fruit production it should be provided bright sunlight throughout the day.

PROPAGATION AND CARE

Trumpet honeysuckle is easily grown, propagates easily from seeds and cuttings, and is generally free from serious insects and diseases. Because honeysuckle species hybridize readily, seeds should be collected from isolated plants or new plants should be started from cuttings. When growing from seed, extraction is accomplished by maceration in water to separate the seeds from the pulp. Once extracted, the seeds may be sown in sterile compost followed by cold-moist stratification. Fall sowing in this manner usually results in good seedling establishment. Softwood cuttings (a nodal tip cutting or double leaf bud cutting) taken in June, July, and August usually root with ease under mist. The use of a rooting hormone will hasten rooting. If you are uncomfortable with trying to start plants from seed or cuttings, then layering is a simple and efficient method of starting new plants from your prized specimen. In the spring, once active growth is evident, simply bury a small section of vine still attached to the plant. For protection, cover the buried section with a brick and keep moist. Allow the vine to remain undisturbed throughout the summer, fall, and winter months. By spring, roots should have developed and the new plantlet may be severed from the mother plant and transplanted into a favored spot in the landscape.

WHERE TO GROW

The juice of the trumpet honeysuckle has been noted as a beneficial treatment for bee stings and leaves have been dried and smoked as a treatment for asthma. Otherwise, not much is written about the uses of the trumpet honeysuckle. Although the berries of some *Lonicera* species are known to be edible; generally, ingestion of the fruit causes mild to moderate nausea, vomiting, and diarrhea; death is unlikely – but I suggest sticking to blueberries!



■ Bob Edelen, DNPS Member



USDA Plants Database

Resources & Reviews

Plant Conservation: A Natural History Approach

Authored by Gary Krupnick and W. John Kress. Natural history has always been the foundation of conservation biology. For centuries, botanists collected specimens in the field to understand plant diversity; now that many habitats are threatened, botanists have turned their focus to conservation, and, increasingly, they look to the collections of museums, herbaria, and botanical gardens for insight on developing informed management programs. *Plant Conservation* explores the value of these collections in light of contemporary biodiversity studies.

Resources & Reviews

Green Inheritance: Saving the Plants of the World

Authored by Anthony Huxley and Martin Walters. This extensively revised and updated edition of Anthony Huxley's magnificent global overview of our plant kingdom portrays the beauty, diversity, and history of wild and cultivated plants, highlighting their profound importance in our lives. With its beautiful color photographs, drawings, charts, diagrams, and superb text, *Green Inheritance* describes the role of plants in the global environment and across cultures; shows how plants are used for food, fuel, and medicine; considers their role for us as objects of beauty in gardens; and much more.

FEATURE ARTICLE

Continued from page 3

for a typical family and with sophisticated filtering and purification components) can cost \$15,000 to \$20,000.

The cost of your system depends on whether you have an appropriate roof surface or have to replace your roof, how big and what kind of cistern you choose, and what level of filtration and purity you require.

Conserve First

The average American uses about 100 gallons of water per day for showers, toilet flushing, clothes washing, cooking and lawn watering. By simply switching to low flush, 1.6-gallon toilets, low-flow showerheads and faucets, horizontal-axis washers and other water-saving appliances, you may be able to reduce your water use by half or more. Conserving water means that you will need less storage capacity, making it possible to buy a smaller (and more inexpensive) cistern. Similarly, if you live in an area that receives a steady supply of rainfall throughout the year, you may only need to size your cistern for a few weeks' worth of water.

But if you're in an area that experiences frequent drought conditions, or in an area with sporadic rainfall and a decidedly dry season, plan accordingly. Experts recommend planning for half your region's expected rainfall, while projecting twice as much water use.

Catchment, if You Can

The most common rainwater catchment system is a roof. Typically, this is the roof of the building where the water will be used, though it may be a separate building designed expressly for rainwater harvesting (a "water barn"). Nearly all types of roofs have been - and are being - used for rainwater collection, but some are better than others.

The best roofing material for rainwater catchment is uncoated stainless steel or factory-enameled galvanized steel with a baked-enamel, certified lead-free finish. With any metal coating, ask the manufacturer whether the coating contains heavy metals (red paint used on metal often contained lead in the past). Any existing metal roof being used for a potable water catchment system should be tested for lead.

Wood shakes, concrete or clay tiles, and asphalt shingles are more likely than other materials to support the growth of mold, algae, bacteria and moss, which can potentially contaminate water supplies. Treated wood shingles may leach toxic preservatives, and asphalt shingles may leach small amounts of petroleum compounds. In addition to the health concerns, a porous or rough roof surface holds back some of the water that would otherwise make it into the cistern. Asphalt roofing has a

"collection efficiency" of about 85 percent while enameled steel has a collection efficiency of more than 95 percent. With asphalt roofing, more of the rainwater stays on the roof in a typical rainstorm (i.e., the roof stays wet), though the actual percentage will depend on the duration of the storm.

To be most effective, the roof should be fully exposed and away from overhanging tree branches. This reduces the risk of contamination from rotting leaves or droppings from birds and insects in the trees. If possible, avoid using roofs of buildings that rely on wood heat, as the smoke particles and soot deposited on the roof may contain polynuclear aromatic hydrocarbons and other hazardous materials.

Wash Your Roof

Between rainstorms, various pollutants can settle out of the air and onto your roof. Many rainwater harvesting systems incorporate a roof washer to keep these contaminants from entering the cistern. Roof washers capture and discard the first several gallons of rainwater during a storm before conveying the rest to the cistern. A very simple roof-wash system can be made out of a 6- or 8-inch vertical PVC or polyethylene pipe installed beneath the gutter, with an inlet just above each downspout to the cistern. Commercial roof washers range in price from \$100 for a water diverter to \$600 for a roof washer.

Cistern

The cistern is the single largest investment for most rainwater harvesting systems. A cistern can range from a recycled whiskey barrel under the eaves of a house (suitable for watering plants) to a large aboveground or buried tank that will hold 30,000 gallons or more. Cisterns are constructed out of a wide range of materials.

Route Your Rainwater

Rainwater falling on the roof can be captured and conveyed to the cistern via gutters and downspouts constructed of roll-formed aluminum, galvanized steel, PVC (vinyl) or copper. As with the roofing, make sure that lead-based solder was not used in gutter or downspout connections. Downspouts should be designed to handle 1 1/4 inches of rain in a 10-minute period. Depending on the cistern location, 4-inch PVC or polyethylene piping may be used to convey water around the building to the cistern. A continuous 1/4-inch mesh screening and basket strainers at the downspouts help catch leaves and other debris. Gretchen Rupp, director of the Montana Water Center at Montana State University, recommends providing a downspout for each 50 feet of gutter run.

Operation

To keep a rainwater harvesting system functioning properly, periodic maintenance is required.



EVENT HIGHLIGHTS

Continued from page 2

SOFTWOOD CUTTINGS PROPAGATION WORKSHOP

Members of the Delaware Native Plant Society were in for a special treat when member Rick Lewandowski, Director of Mount Cuba Center in Greenville Delaware, arranged for a special softwood propagation workshop for native plants. The workshop was held at Mt. Cuba on Saturday, June 17, 2006. The weather was beautiful and members couldn't help to be impressed and inspired as they approached the former Copeland mansion that morning.

Mount Cuba Center's mission is "to foster the appreciation of plants of the Appalachian Piedmont and the conservation of their environment through garden display, education and research." The Center is undergoing an impressive metamorphosis from private garden to public institution, but is being done with great sensitivity to preserve the aesthetics and the grand yet intimate environment which were Pamela Copeland's legacy. The residence, which is listed on the National Register of Historic Places, has been converted to an impressive conference Center, and the workshop took advantage of these first class facilities.

The program began with a video to introduce participants to history and mission of Mount Cuba Center. Eileen Boyle, Education Coordinator for the Center who was formerly associated with the prestigious New York Botanical Garden, then presented an impressive PowerPoint presentation on the science behind rooting cuttings. Phil Oyerly, Greenhouse Manager at the Center who also worked with Ms. Copeland before her death, gave an excellent demonstration on how to successfully root softwood cuttings. Mr. Oyerly led the group to the front of the mansion to a beautiful planting of Virginia sweetspire (*Itea virginica* 'Henry's Garnet') where he demonstrated making the cutting and then invited participants to gather cuttings to be rooted. Highlights of the information he presented included:

Cloning: Advantages and Disadvantages

- o Genetically identical to mother plant
- o Able to produce relatively large numbers of plants
- o Less expensive than grafting and tissue culture
- o Avoids graft incompatibility and understock suckering
- o Some are difficult or impossible to root
- o Particular environmental conditions required

Requirements for Successful Rooting

- o Condition of stock plant - healthy and disease free?
- o Timing - season, new growth, dormant, species
- o Check references - Dirr, Cullina, Phillips, Internet
- o Sanitation - sterile tools, media, and clean hands
- o Environment - light, humidity, water, temperature and air

Taking Cuttings

- o Early morning is best; cooler and turgid
- o Remove rough cuttings above leaf node (usually 6-8")
- o Stick cuttings immediately, if not store moist and cool
- o Make a clean cut just below a leaf node and remove two sets of leaves
- o Wound cutting if required and dip in appropriate rooting hormone, covering the bottom two nodes, tap off excess
- o Dibble a hole and stick cutting in pre-moistened media
- o Water in cuttings and allow to drain
- o Label and seal in plastic bag and place in proper environ.

After care

- o Check condition of cuttings regularly, remove any dead or dying cuttings and leaves
- o Check moisture level
- o After rooting occurs (tug test) slowly harden off
- o Lift cuttings gently from the bottom and pot to growing media (some species should not be potted until after new growth in the spring) Temperate species may require vernalization to break dormancy and commence the next growth cycle.

Following this informative presentation, participants were provided with a clear plastic sweater box to be used as a propagation chamber and were led to a wet lab for the hands-on workshop. Mt. Cuba Center provided media, rooting hormone, pre-made labels, and cuttings of 16 species native to Delaware including: *Chamaedaphne calyculata* (leatherleaf), *Gaylussacia baccata* (black huckleberry), *Rhododendron periclymenoides* (pinxterbloom azalea), *Vaccinium angustifolium* (lowbush blueberry), *Viburnum acerifolium* (maple-leaf viburnum), *Viburnum nudum* (possum-haw viburnum), *Aster schreberi* (Schreber's aster), *Pycnanthemum incanum* (mountain mint), *Solidago caesia* (bluestem goldenrod), and *Solidago odora* (sweet goldenrod).

Jeanne Frett, Research Horticulturist, reviewed various references about plant propagation including *The Reference Manual of Woody Plant Propagation*, by Dirr and Heuser, *Native Trees, Shrubs, & Vines*, and *Growing and Propagating Wildflowers*, both by William Cullina. Jeanne also distributed complimentary copies of a beautiful full color research report titled "Asters for the Mid-Atlantic Region."



Resources & Reviews

Taxonomy and Plant Conservation

Authored by Etelka Leadlay and Stephen Jury. This book illustrates the key role played by taxonomy in the conservation and sustainable utilization of plant biodiversity. It is a tribute to the work of Professor Vernon Heywood who has done so much to highlight the importance of sound scholarship, training and collaboration for plant conservation.

Upcoming Events

TUESDAY, 18 JULY 2006—DNPS BI-MONTHLY MEETING. WE WILL BE HAVING A FIELD TRIP TO BIG OAK COUNTY PARK PRIOR TO THE BUSINESS MEETING. THOSE WHO WOULD LIKE TO ATTEND THE FIELD TRIP SHOULD MEET AT 5:30 PM AT THE VISITORS CENTER AT BOMBAY HOOK NATIONAL WILDLIFE REFUGE (LOCATED AT 2610 WHITE-HALL NECK RD.). AFTER THE FIELD TRIP, WE WILL BE HAVING OUR BUSINESS MEETING IN THE VISITORS CENTER AT BOMBAY HOOK (INSTEAD OF THE ST. JONES RESERVE). CALL 302.653.6449, OR EMAIL QCSJR@COMCAST.NET FOR MORE DETAILS.

AUGUST & SEPTEMBER 2006—GUIDED TOURS AND CONTINUING EDUCATION CLASSES AT THE MT. CUBA CENTER. CALL 302.239.4244, OR ON THE WEB AT [HTTP://MTCUBACENTER.ORG/](http://MTCUBACENTER.ORG/) FOR MORE DETAILS AND TO REGISTER.

SATURDAY, 9 SEPTEMBER 2006—ADKINS ARBORETUM FALL NATIVE PLANT SALE. FROM 9 AM TO 1 PM. CONTACT THE ARBORETUM AT 410.634.2847, OR ON THE WEB AT [HTTP://WWW.ADKINSARBORETUM.ORG/SALES.HTML](http://WWW.ADKINSARBORETUM.ORG/SALES.HTML) FOR MORE INFORMATION.

SATURDAY, 9 SEPTEMBER 2006—DELAWARE CENTER FOR HORTICULTURE ANNUAL TREE SPREE FAIR. THE NEW CASTLE COUNTY TREE COMMISSION AND DCH INVITE THE WHOLE FAMILY TO CELEBRATE THE MANY BENEFITS OF TREES AT THE 11TH ANNUAL TREE SPREE FAIR, HELD AT CAROUSEL PARK ON LIMESTONE ROAD IN THE PIKE CREEK VALLEY. THIS YEAR'S FAIR WILL PARTNER WITH PIKE CREEK COMMUNITY DAY AND WILL FEATURE TREE PLANTING WORKSHOPS, FREE NATIVE TREE SEEDLINGS, NATURE HIKES, LIVE DEMONSTRATIONS AND EXHIBITS. CONTACT THE CENTER AT 302.658.6262, OR ON THE WEB AT [HTTP://WWW.DELHORT.ORG](http://WWW.DELHORT.ORG) FOR MORE INFORMATION.

TUESDAY, 19 SEPTEMBER 2006—DNPS BI-MONTHLY MEETING. WE WILL BE HAVING A PRESENTATION BY DNPS MEMBER DR. JOHN GARDNER, ON THE EXPLORATIONS OF PETER KALM.

SATURDAY, 23 SEPTEMBER 2006—DNPS FIELD TRIP TO A SERPENTINE BARREN IN NOTTINGHAM COUNTY PARK, CHESTER COUNTY, PENNSYLVANIA. TRIP IS FROM 10 AM TO 12:30 PM AND WILL BE LED BY JACK HOLT AND JANET EBERT – PICNIC DINNER PROVIDED. RESERVATIONS REQUIRED. CALL 302.653.6449, OR EMAIL QCSJR@COMCAST.NET FOR MORE DETAILS AND TO REGISTER.

SATURDAY, 28 OCTOBER 2006—DNPS NATIVE ORCHID SYMPOSIUM AT BOMBAY HOOK NATIONAL WILDLIFE REFUGE FROM 10 AM TO APPROXIMATELY 3 PM (FIELD TRIP BEGINS AT 1:15 PM). WILL FEATURE A PRESENTATION OF THE NATIVE ORCHIDS OF DELAWARE AND THEIR HABITATS, A PRESENTATION ON GROWING ORCHIDS, LUNCH, A PLANT & BOOK SALE, AND A FIELD TRIP.

DNPS BI-MONTHLY MEETINGS FOR 2006—ARE CURRENTLY SCHEDULED FOR 17 JANUARY, 21 MARCH, 6 MAY (ANNUAL MEETING), 18 JULY (AT BOMBAY HOOK), 19 SEPTEMBER, 4 NOVEMBER (NOT A MEETING, BUT THE ANNUAL PLANT SALE). ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT THE ST. JONES RESERVE AT 7 PM, UNLESS OTHERWISE NOTED.

Membership Application

DELAWARE NATIVE PLANT SOCIETY

Member Information

Name: _____

Business Name or Organization: _____

Address: _____

City and Zip Code: _____

Telephone (home/work): _____

E-mail address: _____

- ☐ Full-time Student \$10.00
- ☐ Individual \$15.00
- ☐ Family or Household \$18.00
- ☐ Contributing \$50.00
- ☐ Business \$100.00
- ☐ Lifetime \$500.00
- ☐ Donations are also welcome \$ _____

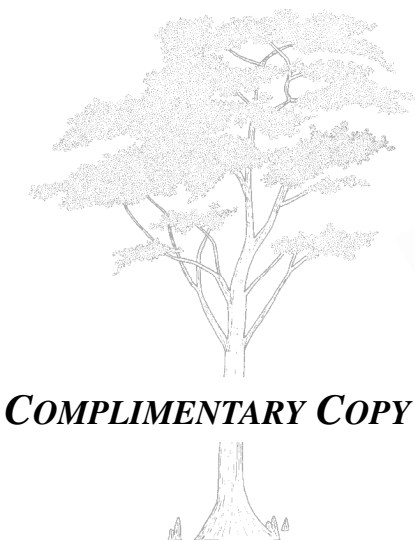
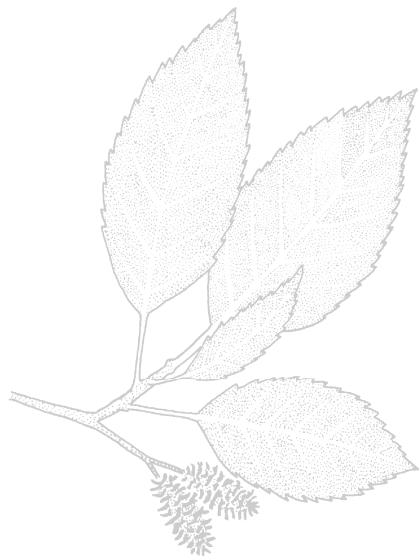
Membership benefits include:

- * The DNPS quarterly newsletter, The Turk's Cap
- * Native plant gardening and landscaping information
- * Speakers, field trips, native plant nursery and sales

Total Amount Enclosed: \$ _____

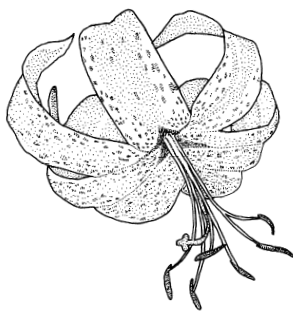
**Make check payable to:
DE Native Plant Society
P.O. Box 369, Dover, DE 19903**

**DELAWARE NATIVE PLANT SOCIETY
P.O. BOX 369
DOVER, DELAWARE 19903**



COMPLIMENTARY COPY





THE TURK'S CAP

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY AUTUMN 2006

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NATURAL QUOTES

"In order to care deeply about something important, it is first necessary to know about it."

Edward O. Wilson

The DNPS Vision

The purpose of the Delaware Native Plant Society (DNPS) is to participate in and encourage the preservation, conservation, restoration, and propagation of Delaware's native plants and plant communities. The Society provides information to government officials, business people, educators, and the general public on the protection, management, and restoration of native plant ecosystems. The DNPS encourages the use of native plants in the landscape by homeowners, businesses, and local and state governments through an on-going distribution of information and knowledge by various means that includes periodic publications, symposia, conferences, workshops, field trips, and a growing statewide membership organized by the DNPS.

A SPICY PUMPKIN PIE WELCOME TO OUR NEWEST MEMBERS

July through September

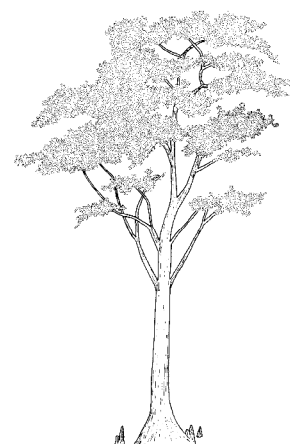
Marilyn Crank
Deborah Koerner
Kathryn Rogers
Liz & Jeff Gordon

HOW CAN I GET INVOLVED?

The Delaware Native Plant Society is open to everyone ranging from the novice gardener to the professional botanist. One of the primary goals of the society is to involve as many individuals as possible.

The DNPS is working on some significant projects at this time. We have completed four reforestation projects in the Prime Hook area, at Blackbird Creek in New Castle County and Cedar Creek in Sussex County where we have installed tree tubes around newly sprouted seedlings, and are performing annual management of the sites. Help is also needed at our native plant nursery at the St. Jones Reserve with the monitoring and watering of plants along with many other nursery activities.

For more information, E-mail us at dnps@delawarenativeplants.org. Or visit our website at www.delawarenativeplants.org. Our website will have all of the past issues of *The Turk's Cap* along with a large section on native plants, as well as links to other environmental and plant related organizations.



THOUGHTS FROM THE EDGE OF THE GARDEN

PLANT RESCUE EFFORTS

When proposed development projects are reviewed by the Delaware Natural Heritage Program of the Delaware Division of Fish and Wildlife, there will be language in the reviews of certain projects that will offer developers the opportunity to contact the DNPS to have us come out and "rescue" native plants on development sites before the bulldozers enter the property. The plants will then be taken back to the DNPS nursery to be used for our reforestation sites and to be sold at our plant sale. Volunteers are also welcome to take plants home with them. Thus far we have not gotten any leads on suitable sites to do rescues. If any members know of forested sites that are going to be developed, please contact us.

WE HAVE A NEW SECRETARY

In the last issue of the Turk's Cap, we were calling for a brave soul to become our new Secretary to replace the tiring Rick Mickowski who did a fantastic job for over two years. We had a taker, and her name is Nancy Davis. We're glad to have Nancy with us and it's especially exciting that we have a new person in our core group of volunteers. We hope that trend continues!

SEED COLLECTING

In the last issue of the Turk's Cap we enclosed a set of guidelines to be used for seed collecting. We are always looking for volunteers to collect seeds for the nursery, as that aspect of the nursery is one of the most important if we are to uphold our conviction of selling local collected and grown plants at the annual plant sale. If anyone does collect seeds and would like to donate them to the nursery, please contact Eric Zuelke.

DNPS ADOPTED A WETLAND

In the Spring 2006 issue of the newsletter, we announced that we were seeking out a wetland to adopt as a result of the great presentation that Marlene Mervine gave at our March bi-monthly meeting on the Delaware Adopt-A-Wetland Program (AAWP). The AAWP is a volunteer effort where any person or organization can "adopt" a wetland in the state, then perform management tasks on it such as trash removal, non-native and invasive plant removal, animal and plant

surveying, and a whole host of other things. Between the people who actively pursued this idea, we decided on adopting the newly created wetlands at the newly created Big Oak County Park, just east of Smyrna on Big Oak Road. We are currently in the process of drafting a management plan for our wetlands and we will have more details on it later.

BIG OAK COUNTY PARK & WETLAND DEDICATIONS

As a result of the DNPS adopting the wetlands at Big Oak County Park and perfect timing, we were invited to a dedication ceremony on 30 Sep 2006, where Big Oak County Park was unveiled to the public with a ribbon cutting and speeches by local dignitaries. The DNPS was also presented with the Adopt-A-Wetland sign that will be mounted in the park recognizing the DNPS as the adopters of the parks wetlands. Our own Rick McCorkle gave a short acceptance speech. Thanks go out to both Carl Solberg, DNPS member and integral player in the parks creation, and Marlene Mervine for helping the DNPS with the adoption process and figuring out the details of what the future holds for our wetlands.



EVENT HIGHLIGHTS

SERPENTINE BARRENS FIELD TRIP

On September 23rd 2006 we had a fantastic field trip to the serpentine barrens at Nottingham County Park in Chester County, PA. At 20 people, we had the best attendance we've ever had to a DNPS field trip. And all of us, under the guidance of our leaders, Janet Ebert & Jack Holt, were treated to glimpses of some very rare, special plants that only grow in this unique habitat. Serpentine is a light green-colored rock formed beneath the ocean floor and thrust to the surface during ancient shifts in the Earth's crust, and are very low in nutrients and high in toxic chemicals. This scenario sets the stage for some great botanizing. Under the common canopy of pitch pine (*Pinus rigida*), Virginia pine (*Pinus virginiana*) and post oak (*Quercus stellata*), some of the most rare species of plants that we observed were St. Andrew's cross (*Hypericum stragulum*), striped gentian (*Gentiana villosa*), lion's foot (*Prenanthes serpentaria*), rock sandwort (*Minuartia michauxii*), round-leaved fameflower (*Talinum teretifolium*), prairie dropseed (*Sporobolus heterolepis*), purple needlegrass (*Aristida purpurascens*), scrub oak (*Quercus ilicifolia*), large-purple false-foxglove (*Agalinis purpurea*), and whorled milkweed (*Asclepias verticillata*).



Resources & Reviews

Autumn: A Season Of Change

Authored by Peter J. Marchand. There is much more to the fall season than meets the eye, as Marchand demonstrates in this gracefully written introduction to the science and natural processes of autumn with respect to plants, animals, and the land itself. Dotted with fall observations by famous naturalists and ending with an interesting account of the term "Indian summer," Marchand's work will impress autumnal admirers.

Resources & Reviews

Fall Colors Across North America

Authored by Anthony Eaton Cook and Ann Zwinger. This book takes you on a magnificent journey from the Alaska tundra in the Far North, through Canada and the northern United States, all the way to the bald cypress swamps of Louisiana in the Deep South for a stunning, artistic look at this most magnificent of seasons and how the fall colors explode into life and why they so strongly affect people.

FEATURE ARTICLE

HISTORY OF THE DNPS REFORESTATION PROJECTS

(Editor's note: This is a two part article).

Part 1

At its inception, one of the primary aspirations of the Delaware Native Plant Society was to do its part in curbing the loss of forest in Delaware. The principal method we wanted to use to achieve this objective was through the reforestation of fallow fields that were already retained in conservation status. Over the years, many people have contributed, and many hours have been spent in the implementation of this goal. This report is a summary of our efforts up to this point.

The First Exploratory Steps

A letter was written on **24 April 1999** by then DNPS President Keith Clancy on behalf of the DNPS to Mr. Andy Manus, the then Director of the Division of Fish and Wildlife (DFW), explaining our interest in doing a reforestation project and requesting the assistance of DFW in selecting a site for a reforestation project in a state wildlife area.

Another letter was written on **8 July 1999** by Keith Clancy to Mr. Nick DiPasquale, then Secretary of DNREC discussing the possibility of undertaking a reforestation project on state lands. Keith requested that this topic be an item on the agenda for the **14 July 1999** meeting with the State's conservation groups. Keith Clancy attended this meeting and secured a positive endorsement from Secretary DiPasquale for our reforestation plans.

Prime Hook State Wildlife Area, Sussex County

This reforestation site was our first project, and is located in the State Wildlife Area on Prime Hook, just off Little Neck road. The site is a previously farmed field that is approximately 1.0 acre in size and is bordered by mature forest, and another reforestation site that was planted by wildlife area staff with 2-3 year old hardwood seedlings.

Delaware Native Plant Society members Rick McCorkle and Keith Clancy met with Rob Gano, manager of the Prime Hook State Wildlife Area, on **12 January 2000** to look at a site for reforestation within the Wildlife Area borders. Mr. Gano detailed out the area that would be flagged off for our

reforestation efforts and the area was surveyed for nut availability.

Armed with only pocket knives and buckets, seed collecting and reforestation began on **15 October 2000**. On this day approximately nine volunteers collected seeds in the forest adjacent to the reforestation plot in the morning and after a lunch break, directly seeded the reforestation site. The method used to plant the seeds was one that was devised by Keith Clancy, DNPS President at that time. His methodology consisted of using flags that were placed in the ground in a randomized fashion and then four seeds per flag were planted (one seed in each of the cardinal directions, N, S, E, and W around the flag) approximately 12 inches away from the flag. This method was used in each one of our four reforestation sites. Most of the seeds collected and planted were various oak species (primarily white, red, and, southern red) with only a small percentage that included hickories, tulip poplars, and other hardwoods. Lynn Parks of the News Journal, wrote an excellent article on the DNPS and this project, which appeared in the 18 October 2000 issue. We planted approximately 1800 nuts at 450 flags this day.

Society member Eric Zuelke and another DNPS member inventoried seedlings on **20 May 2001**. The seeding effort at this site was quite productive, as nearly 300 seedlings had sprouted.

Tree tubes were installed on various dates in **June and July 2001** by Rick McCorkle and Keith Clancy around approximately 200 seedlings, and some of the volunteer sweet gum seedlings were removed.

On **28 May 2003**, Eric Zuelke and another DNPS member cut down non-natives and invasive plants in a three-foot radius around each seedling to give them room to grow and compete.

Eric Zuelke and Angel Babb (2005 DNPS intern) removed tree tubes from some of the larger oaks on **10 May 2005** and cut down non-natives and invasive plants in a three-foot radius around each oak seedling. Approximately 60 oaks and hickories were discovered this day, of which at least 50 were from seeds that were planted in October of 2000. This was clear because tree tubes were still around them. There were also numerous tulip trees, most of which are presumably volunteers. By far the most numerous tree species on the site is the sweet gum, with a ratio of approximately 15:1 to the oaks. The site is becoming a dense pole forest, which can be a typical scenario for this type

Continued on page 5

GARDENING WITH NATIVE PLANTS**WHITE OAK (*QUERCUS ALBA*)****NATURAL HISTORY**

Hardly anyone does not know of the majestic White Oak. In fact the White Oak is so popular for its beauty, stately presence, many uses, and abundance, that it is the state tree of Connecticut, Illinois and Maryland. Now with fall approaching as the air cools and leaves begin to turn, the value of the White Oak to all of nature becomes apparent. Take a walk in most any mature forest throughout the Eastern United States and in a good year you will feel the crunch of acorns under your feet. Acorns are a valuable source of food for more than 180 birds and mammals. They are a favorite food of turkeys, ducks, pheasants, grackles, jays, nuthatches, thrushes, woodpeckers, rabbits, squirrels, raccoons, deer and many others. Handsome and sturdy, the White Oak is named for its whitish bark and gray twigs. They may be found in pure stands but most often occur in mixed hardwood forests usually with other oaks, hickories, sweetgum, yellow poplar, maple and often conifers such as loblolly and Virginia pines as well. The west slopes of the Appalachian Mountains, and the Ohio and central Mississippi River Valleys have optimum conditions for white oak, but some of the largest individuals have been found in Delaware and Maryland's Eastern Shore. The Wye Oak on Maryland's Eastern Shore was the honorary state tree of Maryland and was probably the oldest living White Oak until it was felled by a thunderstorm on June 6, 2002. The largest White Oaks in Delaware are found in New Castle County.

WHERE TO GROW

The White Oak is one of the most spectacular of oaks and when grown in an open landscape without competition will spread into a magnificent shade tree, with an exceptionally wide spread and almost never dropping limbs. It bestows a special elegance to parks and large lawns. There is no finer shade tree for eastern North America and the rich brown fall color often persists for several weeks. Normally not a tall tree, typically 60 to 80 ft. at maturity, it nonetheless becomes quite massive and its branches tend to reach far out parallel to the ground when given sufficient room to grow. The White oak is fairly tolerant of a variety of habitats, and may be found on ridges, in valleys, and in between, and in dry and moist habitats, and in moderately acid to alkaline soils. So, regardless of the condition of your landscape the White Oak might just be the perfect tree given sufficient room and time to grow.

PROPAGATION AND CARE

Most White Oak propagation is from seed. The White Oak will begin to produce acorns usually around its 50th year although a well-grown specimen in an open area may produce acorns by

its 20th year. Acorn production will vary from year to year and from tree to tree, but in a good acorn production year (every 4 to 6 years), a healthy specimen may produce up to 10,000 acorns. In a poor production year it may be difficult to find viable seeds, as the competition among wildlife for food can be intense. Seed will begin to fall in early October and will soon germinate and are best harvested before wildlife or insect damage can occur. Select large healthy, light brown, blemish free seeds and remove the cap carefully inspecting for holes in the shell that might indicate the presence of borers – discard if holes are evident. Finally, check for seed viability by flotation in water: acorns that sink are sound; those that float should be discarded. White Oak acorns do not store well, so they should be planted as soon as possible after collection. A light medium is preferred so that the taproot can develop unimpeded. Prepare a mix of equal parts peat moss, sand, fine pine bark mulch and rotted leaf compost and place in a large (6 to 8 inch) pot. Add a layer of acorns spaced approximately 1 inch apart and cover, water well and place in a cold frame. I have found that an insulating layer of fresh leaves inside the cold frame is great for protecting from any freeze/thaw cycle and improves root development. After germination, root growth continues until interrupted by cold weather. Root and shoot growth will resume in the spring and a large taproot will develop. In early summer pot up the seedlings into individual pots and continue to grow for one year before setting out into the landscape. Keep young seedlings well watered until established. Once established, transplanting is hard because of the deep growing taproot!

LORE

In addition to being an outstanding tree for the landscape, the wood, bark and fruit of the White Oak have long been valued by the earliest Native Americans to present day furniture makers and artisans. Native Americans used acorns of the White Oak as a food – they are much less bitter than the acorn of red oaks. Native Americans ground acorns into flour, a technique they shared with early European settlers. The acorns were either boiled in water or soaked in a lye solution to remove the tannins, then pounded and ground to make a flour that was made into mush or used to thicken soups. In Native American medicine the bark was brewed into a tea for treating diarrhea and hemorrhoids. Modern herbals still specify White Oak as an astringent for external use on wounds open sores and insect bites. Of course, where would the furniture market be were it not for the White Oak? The wood is tight grained, hard and tough making the finest furniture and flooring, support timbers, railroad ties and pallets. It was used in ship construction and extremely popular for barrel making for its watertight grain – hence the name stave oak.



 **Bob Edelen, DNPS Member**

Resources & Reviews***The Colors of Fall: A Celebration of New England's Foliage Season***

Authored by Jerry and Marcy Monkman. This gorgeous collection of photographs celebrates this most iconic of New England seasons.

Resources & Reviews

Autumn: A New England Journey

Authored by Ferenc and Candace Mate. This reissue of one of New England's most beloved books is more spectacular than ever. Ninety color photographs, by turn meditative and passionate, capture New England's fiery colors and pastoral tranquility. What makes this book unique is that it contains a practical tour-planning guide. An appendix with hand-drawn maps outlines ideal autumn excursions and treks, and also includes short descriptions of the most beautiful and interesting sites in New England.

FEATURE ARTICLE

Continued from page 3

of reforestation project.

Eric Zuelke and Lauren Lyles (2006 DNPS intern) removed tree tubes from some of the larger oaks on **14 May 2006** and cut down non-native and invasive plants in a three-foot radius around each oak seedling. Approximately 60 oaks were again discovered, of which at least 50 were from seeds that were planted in October 2000. There were also numerous volunteer tulip trees, and sweet gum is quite numerous and outnumbers the oaks. These results were similar to what was found in 2005, except all the plants are just a couple of feet taller now. The tallest oak that we observed was approximately 15 feet tall. Unfortunately, in the fall of 2005, the Wildlife Area maintenance crew mowed strips in over 2/3 of the reforestation area. They did not realize that this site was a DNPS reforestation site. The mowing did help to clear out many of the sweet gums, but also mowed down many of the oak seedlings that had probably reached heights of 3 to 6 feet based on the size of cut bases.

Prime Hook National Wildlife Refuge Site, Sussex County

This reforestation site is located east of Deep Branch Road (north of the Route 16/Route 1 intersection, east of Waples Pond) on Prime Hook National Wildlife Refuge. The site is approximately 18 acres in size and is part of a long-term project by the Refuge in establishing a "legacy, or centennial forest."

Field work for this site took place over a five-week period (**5 October 2003-16 November 2003**) and resulted in the planting of 14,740 seeds at 3,685 flags. Most of the seeds planted were oaks and hickories, but we also planted flowering dogwood, and tulip poplar. Seeds were collected in the forested areas within the borders of the Refuge. Approximately 25 volunteers helped with seed collecting and/or planting. To make things fun, we had our first day of planting during the refuge's Annual Waterfowl Festival which also was part of the hundredth anniversary of the National Wildlife Refuge system. During a light drizzle we planted the field as it and our efforts were blessed by a chief of the Lenape tribe.

On **21 May 2004**, Keith Clancy and George O'Shea (Refuge biologist who spent many hours on his own collecting and planting seeds) performed independent surveys of the germination success and each came up with results that averaged out to a germination success of 1 to 4 seedlings at 71% of the flags.

From **31 July-7 August 2004**, approximately 75 volunteers and 4 Refuge employees installed 1,316 tree tubes.

There were approximately 600-700 tree tubes still in place on **23 April 2005** and no direct management efforts were conducted this day. This number of tree tubes is only approximately half of what was installed in 2004 and it's not clear what happened to the other tree tubes. The following description of the field work in 2006 may be part of the answer. Other reasons for the decline in the number of tree tubes located could be human sampling error, gusts from storms blowing them away, or perhaps even animals carrying them away.

After an inspection of this site on **9 September 2006**, it appears the area is showing signs of maturing. However the northern half of the site is having some problems, but the southern half is in good shape. The northern half is densely populated with sweet gum. This half is adjacent to surrounding forest and is further away from the grassy access road leading to the site. Because of its location, fewer volunteers ventured this far into the site to install tree tubes and because of that, and the density of the sweet gums, it was very difficult to locate any of our seedlings. Undoubtedly, some there are still growing, but it is not known how many. Sweet gum is also well established in the southern half of the site but there are far fewer than found in the northern half and they are young enough that the oak seedlings can compete. Of the 600-700 tree tubes located in 2005, approximately 200 were located on this date. Most of those tree tubes were left in place, but tubes that had fallen over, or were otherwise impeding the growth of a tree were removed. Only a small percentage of the tubes still standing lacked seedlings, so the majority of the tubes had a healthy tree still inside them. There were also a handful of oaks and hickories located that did not have a tree tube around them and they were surviving just as successfully as individuals with tree tubes. There were just about as many hickories as there were oaks growing (about 50% each spp.). There are also a moderate number of loblolly pines growing here, which will ultimately make this a more diverse forest. There are a large number of tulip trees and sweet gum growing at this site (particularly the north half), and it is on its way to becoming a sweet gum/tulip tree pole forest, much like the Prime Hook Wildlife Area site. Other species encountered were cherry trees, sumac, and eastern red cedar.

To be continued with Part 2 in the Winter 2006/2007 issue of the Turk's Cap.



6th Annual Native Plant Sale

When: Saturday, 4 November 2006, 10:00 AM – 3:00 PM

Where: DE Native Plant Society's native plant nursery.

Directions: The nursery is located at 818 Kitts Hummock Road, at the St. Jones Research Reserve in Dover. Take Route 113 to the Dover Air Force Base. Kitts Hummock Road is directly at the southern border of the air base at the three way intersection of 113, Route 9, and Kitts Hummock Road. Kitts Hummocks Rd. only goes east, and if you go almost one mile you'll see a large sign for the St. Jones Reserve. Turn right onto the gravel road and the nursery is all the way in the back to the left of the parking lot.

What's for sale: Hundreds of trees, shrubs, herbaceous species, ferns, vines and grasses will be available at very reasonable prices.

Here's a sample of what's available (not a complete list):

walnut	azaleas
pawpaw	ink-berry and teaberry
hickories	winterberry holly
American holly	sweet pepperbush
tulip tree	butterfly milkweed
many species of oaks	cardinal flower
viburnum	coneflowers
red chokeberry	ferns

Come early, some quantities are limited-a line will form early and we'll open the gates at 10 AM

For more information: Call 302.735.8918, email ezuelke@juno.com, or on the web at www.delawarenativeplants.org.

We had a great sale last year and hope to have an equally great sale this year.

Plenty of free food and beverages will be available also as our sale is getting well known for the food!

Upcoming Events

WEDNESDAY, 18 OCTOBER 2006—PLANNING MEETING FOR THE PLANT SALE. DETAILS TO COME SOON.

SATURDAY, 21 OCTOBER 2006—AUTUMN AT ABBOTT'S MILL FESTIVAL. EVENTS INCLUDE ENCOUNTER NATURE, DEMONSTRATIONS & EXHIBITS, CHILDREN'S ACTIVITIES, SALES, GUIDED TOURS, GUIDED WALKS, CANOE RIDES, REFRESHMENTS AND FOOD. FOR MORE INFORMATION CALL 302.239.2334, OR ON THE WEB AT [HTTP://WWW.DELAWARENATURESOCIETY.ORG/INDEX.HTML](http://WWW.DELAWARENATURESOCIETY.ORG/INDEX.HTML)

SATURDAY, 28 OCTOBER 2006—DNPS NATIVE ORCHID SYMPOSIUM AT BOMBAY HOOK NATIONAL WILDLIFE REFUGE FROM 10 AM TO APPROXIMATELY 3 THEIR HABITATS, A PRESENTATION ON GROWING ORCHIDS, LUNCH, A PLANT & BOOK SALE, AND A FIELD TRIP.

VARIOUS DATES IN OCTOBER 2006—NURSERY WORKDAYS TO PREPARE FOR PLANT SALE. DETAILS TO COME SOON.

SATURDAY, 4 NOVEMBER 2006—DNPS ANNUAL NATIVE PLANT SALE.

SATURDAY, 11 NOVEMBER 2006 – FALL FAMILY FESTIVAL AT ADKINS ARBORETUM. ACTIVITIES INCLUDE HAYRIDES, WALKS THROUGH THE ARBORETUM WOODS, MUSIC, AND AN ARRAY OF LUNCHTIME TREATS. PARTICIPANTS CAN ALSO PLACE ORDERS FOR HOLIDAY WREATHS MADE FROM FRESHLY CUT LOCAL GREENS THAT WILL BE DELIVERED AT THE ARBORETUM'S HOLIDAY GREENS SALE. CALL 410.634.2847 FOR MORE INFORMATION, OR TO REGISTER BY PHONE, OR ON THE WEB AT [HTTP://WWW.ADKINSARBORETUM.ORG](http://WWW.ADKINSARBORETUM.ORG).

TUESDAY, 21 NOVEMBER 2006—DNPS BI-MONTHLY MEETING. WE WILL BE HAVING A PRESENTATION BY BILL PIKE ON PORCELAIN BERRY ERADICATION IN DELAWARE.

DNPS BI-MONTHLY MEETINGS FOR 2006—ARE CURRENTLY SCHEDULED FOR 17 JANUARY, 21 MARCH, 6 MAY (ANNUAL MEETING), 18 JULY (AT BOMBAY HOOK), 19 SEPTEMBER, 4 NOVEMBER (NOT A MEETING, BUT THE ANNUAL PLANT SALE) AND 21 NOVEMBER. ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT THE ST. JONES RESERVE AT 7 PM, UNLESS OTHERWISE NOTED. THE 2007 MEETING SCHEDULE WILL BE PUBLISHED IN THE NEXT ISSUE OF THIS NEWLETTER.

TUESDAY, 16 JANUARY 2007—DNPS PROGRAM AND FIELD TRIP ON THE WINTER IDENTIFICATION OF TREES. MORE DETAILS TO COME LATER.

SATURDAY, 10 FEBRUARY 2007—DNPS SEED PROPAGATION WORKSHOP: A REPRIS OF OUR POPULAR 2005 WORKSHOP. MORE DETAILS TO COME LATER.

Membership Application

DELAWARE NATIVE PLANT SOCIETY

Member Information

Name:

Business Name or Organization:

Address:

City and Zip Code:

Telephone (home/work):

E-mail address:

- ☐ Full-time Student \$10.00
- ☐ Individual \$15.00
- ☐ Family or Household \$18.00
- ☐ Contributing \$50.00
- ☐ Business \$100.00
- ☐ Lifetime \$500.00
- ☐ Donations are also welcome \$ _____

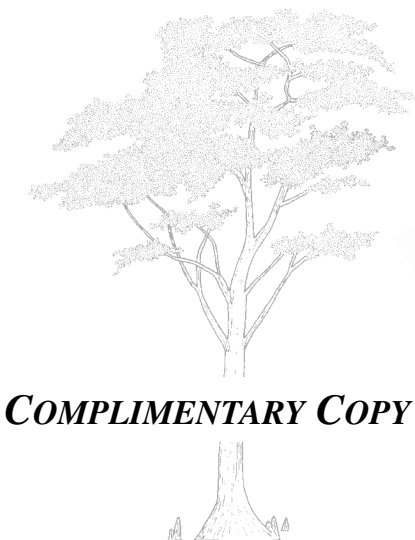
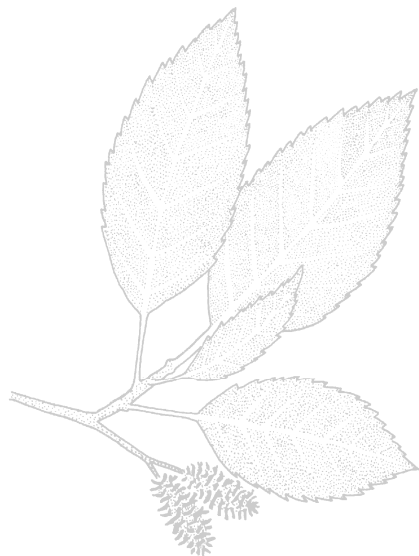
Membership benefits include:

- * The DNPS quarterly newsletter, The Turk's Cap
- * Native plant gardening and landscaping information
- * Speakers, field trips, native plant nursery and sales

Total Amount Enclosed: \$

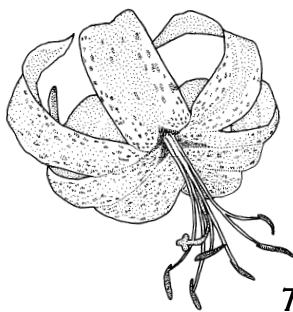
**Make check payable to:
DE Native Plant Society
P.O. Box 369, Dover, DE 19903**

**DELAWARE NATIVE PLANT SOCIETY
P.O. BOX 369
DOVER, DELAWARE 19903**



COMPLIMENTARY COPY





THE TURK'S CAP

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY WINTER 2006 /07

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NATURAL QUOTES

"Nature is not only all that is visible to the eye -- it also includes the inner pictures of the soul."

Edvard Munch

The DNPS Vision

The purpose of the Delaware Native Plant Society (DNPS) is to participate in and encourage the preservation, conservation, restoration, and propagation of Delaware's native plants and plant communities. The Society provides information to government officials, business people, educators, and the general public on the protection, management, and restoration of native plant ecosystems. The DNPS encourages the use of native plants in the landscape by homeowners, businesses, and local and state governments through an on-going distribution of information and knowledge by various means that includes periodic publications, symposia, conferences, workshops, field trips, and a growing statewide membership organized by the DNPS.

A SNAPPING CRACKLING FIREPLACE WELCOME TO OUR NEWEST MEMBERS

October through December

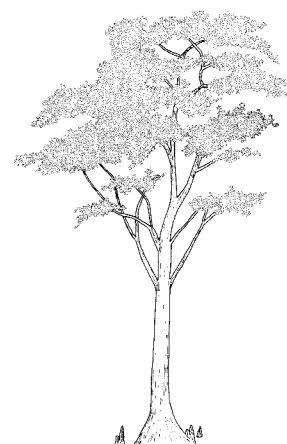
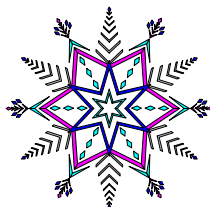
Pat McElwee
Wandaliz Mercado
Linda Peters
Bruce Pringle

HOW CAN I GET INVOLVED?

The Delaware Native Plant Society is open to everyone ranging from the novice gardener to the professional botanist. One of the primary goals of the society is to involve as many individuals as possible.

The DNPS is working on some significant projects at this time. We have completed four reforestation projects in the Prime Hook area, at Blackbird Creek in New Castle County and Cedar Creek in Sussex County where we have installed tree tubes around newly sprouted seedlings, and are performing annual management of the sites. Help is also needed at our native plant nursery at the St. Jones Reserve with the monitoring and watering of plants along with many other nursery activities.

For more information, E-mail us at dnps@delawarenativeplants.org. Or visit our website at www.delawarenativeplants.org. Our website will have all of the past issues of *The Turk's Cap* along with a large section on native plants, as well as links to other environmental and plant related organizations.



THOUGHTS FROM THE EDGE OF THE GARDEN**PLANT RESCUE EFFORTS**

Well, we finally got a plant rescue operation together! Back in early December, we were contacted about a project going in at Killens Pond State Park that was going to impact a small section of forested habitat. On December 6th, a small group of Society members got together and we dug up approximately 70 plants of approximately 12 species. The operation went very well (even though part of our time was spent avoiding the skid steers as they moved around us digging up the site). It definitely added to our inventory in the nursery. The big trick was going to be keeping the plants alive over the winter in their pots without freezing, but the weather has been so mild thus far, the plants are doing fine. Thanks to all who helped out with this operation. Let's hope the projects keep coming.

NURSERY UPDATE

The nursery is doing just fine so far this winter. The plastic on the greenhouse has taken a bit of beating from the most recent windy rainstorms, because without the shade cloth on the house, there is little protection for the plastic. The plastic will need to be replaced this spring, but we have a couple of months before that project is tackled. And the best news is that so far we have thwarted the ransackings of the mice and squirrels on our stratifying seeds! We had originally constructed a stratifying bench of PVC pipe to keep the seed flats off the ground, but the mildly important variable of just how much weight it could hold was unknown at the moment it was put into action, and subsequently, too much weight brought it crashing to the ground. So a quick Plan B was established (and is working so far), and it was back to the drawing board... 🐿

EVENT HIGHLIGHT**6TH ANNUAL NATIVE PLANT SALE**

We had a good plant sale this year, but not terrific. Because of the rodent destruction last winter, and the hot, dry summer, our inventory was not as large as past years, and it showed in our attendance and overall sales figures. We also experienced a very very cold, windy sale day, which may have discouraged some people from venturing out to our nursery. Numbers were down this year in all categories, but we're not too worried about it. We aren't able to sustain a continually growing event every year, and this was the year for a plateau. It wasn't a total bust however, as we did \$1462.00 in pure plant sales, which yielded a "profit" for us of \$1014.00. Our annual plant sale is our only true fund raising event of the year and every little bit helps! We'd also like to thank everyone who came out and helped to label, price, haul plants around, or brought food. You are all essential and greatly appreciated! 🐿

Here's the stats!

# of \ Year	2004	2005	2006
Species available	69	77	69
Plants available	1700	2000	1046
Plants sold	1081	976	564
Customers	96	125	72
Booklets sold	1	24	4
Checklists sold	3	0	2

Photo
By:
Bob
Edelen

**Resources & Reviews****Woody Plants In Winter**

Authored by Earl Lemley Core and Nelle P. Ammons. A classic text on the criteria for identifying trees and shrubs in winter as reliably as in other seasons of the year. Based on years of teaching, the authors present keys to recognize dormant woody plants by their buds and branches. The information details representative plants from habitats in the northeastern US and southeastern Canada. Illustrated with over 300 line drawings.

Resources & Reviews

A Guide to Wildflowers in Winter: Herbaceous Plants of Northeastern North America

Authored by Carol Levine. This beautifully illustrated book is a unique guide that helps both amateur naturalists and serious field botanists identify nonwoody plants—herbaceous weeds and wildflowers—as they are found in winter in the northeastern United States and eastern Canada. The book features long entries on 391 species of herbaceous plants, each illustrated with a line drawing by Dick Rauh, together with briefer mentions of 191 similar species. The book also includes numerous charts illustrated by Rauh, an illustrated key, and an illustrated glossary. Photographs to help in identifying winter rosettes of some species are also provided.

FEATURE ARTICLE

HISTORY OF THE DNPS REFORESTATION PROJECTS

(Editor's note: This is the second part of a two part article).

Part 2

Blackbird Creek Delaware National Estuarine Research Reserve (DNERR) Site, New Castle County

The Blackbird Creek DNERR site is located near the Union Church Road and Rte 9 intersection in the lower end of the Blackbird Creek watershed. The DNERR staff arranged to provide a field of approximately 1.5 acres for reforestation. This field is located on the northeast side of Beaver Branch, a small tributary of Blackbird Creek. The field is bordered by a narrow wooded hedgerow on the northwest side immediately adjacent to Union Church Road, a narrow forested fringe of the Beaver Branch on the southwest, and private lands on the southeast and northeast sides. These private lands consist of grasslands and a planted lawn and garden. Reforestation will provide an important buffer to Beaver Branch and Blackbird Creek, and habitat for wildlife.

The site has two distinct soil and moisture profiles. The upper half, which is closest to the adjacent private grassland is drier, while the lower half, closer to the forested edge and the Beaver Branch, is moister. The transition slope is an elevation drop of approximately 15-20 feet.

Work on the project began in **February of 2002** with the writing of a grant proposal, which was later approved.

Field work was anticipated to begin in **September of 2002**, but climate conditions of the summer and early autumn of 2002 resulted in poor mast production, so DNPS requested, and was granted a one-year extension for the field work.

A meeting with Jim Dobson, manager of Blackbird State Forest was held on **22 September 2003** to discuss details of collecting nuts in the state forest to use at the reforestation site.

The site was mowed on **1 October 2003** for the final time by staff of the St. Jones DNERR Reserve.

Nut collecting took place between **2 October through 12 October 2003** at various sites in the Blackbird State Forest and direct seeding was done at the reforestation site. The nuts were planted in a randomized fashion with 4 nuts to a flag. Most of

the nuts collected and planted were of various oak species (primarily white, and southern red) with a small percentage of hickories, tulip poplars, other hardwoods, and some shrubs. A total of 1,984 nuts at 496 flags were planted.

Germination success was assessed on **23 May 2004** by Keith Clancy and 47 tree tubes were installed around germinated seeds, of which the majority were oaks. We also discovered a handful of the shrubs seeds that we planted (namely dogwood) in October 2003 had germinated as well.

On **16 April 2005**, 65 healthy trees (oaks and hickories) were counted. In addition, tree tubes were adjusted, grass was cleared from inside the tubes, and 20 additional scarlet oak seedlings were planted from the DNPS nursery. A few of the original shrubs were also still growing. It was noted that the most successful part of the site is in the lower half, where the soil is more consistently moist.

From the original seeding effort, there were 11 oaks with tree tubes still living on **1 July 2006**, as well as one oak that was about 4 feet tall. Two hickories and one four-foot flowering dogwood (which we planted) were also found and two additional hickories were planted in the upper half of the site. The upper half of the site has lost most of the original seedlings because it is too dry. The lower half has dozens of volunteer hickories, and a few volunteer oaks from the forest edge. The site has quite a large number of multiflora rose shrubs, and sweet gums (many of which were cut down during this years management efforts), but also numerous small tulip trees. The upper half of the site is succeeding into the same type of pole forest that is currently established at the Prime Hook Wildlife Area site. The lower half of the site is going to contain the greatest number of desirable species (the oaks and hickories) and should be the core of the site from which the upper half will ultimately get its source of seeds. As the trees from the lower half mature, they will shade the upper half and help to retain moisture, to ultimately make it successful. Until then, human efforts to reforest the upper half will most likely be futile.

Cedar Creek Natural Area Site, Sussex County

The Cedar Creek Natural Area, managed by the Delaware Division of Parks and Recreation, is located approximately 1 mile west of Route 1 on Brick Granary Rd. The site is approximately 18 acres in size and is bordered by the lawn of a church on one side, houses and a thin row of trees and shrubs on one side, and

Continued on page 5

GARDENING WITH NATIVE PLANTS

WINTERBERRY HOLLY (*Ilex verticillata*)

NATURAL HISTORY

At the first mention of holly, one's thoughts typically lean to the American Holly (*Ilex opaca*) a stately evergreen tree with shiny (and prickly) green leaves and spectacular red berries that adorn landscapes throughout the country and who's festive greenery brighten homes during the holiday season. However, a winter stroll along waterways and moist woodlands throughout Delaware will reveal another member of the holly family worthy of any landscape! Winterberry (*Ilex verticillata*) is a deciduous holly that thrives in moist habitats from Nova Scotia and Quebec, west to Minnesota and south to Arkansas and the Florida Panhandle. This relatively slow growing holly forms a dense well rounded shrub that is ideal for low nesting birds such as cardinals and mocking birds, and it's diminutive flowers are a major source of energy for bees, bumblebees, small butterflies and other insects that act as pollinators in return for their nutrient rich nectar. But it is during the fall and winter months that winterberry is unsurpassed for it's beauty and value to wildlife. The Latin name '*verticillata*' translates as "arranged in whorls", referring to the arrangement of the sessile fruits (and also referring to the flowers) in a "pseudo-whorl" around the stems. The bright red and sometimes orange berries are born in large clusters that persist well into the winter months unless consumed by wildlife. Because of their relatively low fat content the bright red berries are not readily consumed, but as more desirable food sources diminish, the berries of winterberry become a welcome banquet to over 20 species of birds including bluebirds, robins, thrushes, mockingbirds, catbirds, cedar waxwings, sparrows, grouse, dove and woodpeckers, and mammals such as raccoons, squirrels, deer and mice that rely on the late season bounty.

WHERE TO GROW

Ilex verticillata or winterberry is a must for any landscape. Though winterberry is a shrub of primarily moist woodlands and thus especially tolerant of poorly drained soils, it will thrive under many light and soil conditions given an ample supply of water and slightly acid soil. It can be planted in a forest understory, at the edge of woodland and along stream banks. It can be regularly trimmed to maintain a lush, impenetrable hedge. For the best fruiting, thickest foliage and most attractive shape and display, grow your winterberry in an open landscape with ample light. Since the fruits are only produced on the female trees, both male and female specimens are required to produce fruit. One male tree is suitable for pollinating from 3 to 5 female trees, but be sure to obtain plants from the same area (or hybrid) to insure that flowering occurs at the same time each year. Your winterberry will tend to sucker and form dense impenetrable thickets 6 to 10 feet tall, so it is most effectively

used in a group or mass plantings, at entranceways, along borders, as a deciduous screen, in wet naturalized areas, and is excellent at the very edge of bodies of water, along waterways, along woodland edges and in wildlife habitats.

PROPAGATION AND CARE

Propagation of winterberry can either be accomplished from seed or by taking cuttings. Seeds will require 18 months to germinate, and are best sown in autumn as soon as they ripen. Collect ripened berries and separate from the pulp by maceration. Scarification, followed by a warm stratification and then a cold stratification may speed up germination. Place the seeds in a mixture of equal parts peatmoss, fine pine bark mulch and sand and place in a cold frame protected from the winter chill. Once large enough to handle, pot the seedlings up into individual pots and grow them on in light shade in a cold frame for their first year. Grow them on in their pots for a second season and then plant them out into their permanent positions in late spring or early summer. Seedlings should be provided a layer of organic mulch for protection during their first year. Alternatively, cuttings of almost ripe wood with a heel, taken in August and treated with a rooting hormone and placed in a shaded cold frame will also produce desirable results. Leave for 12 months before potting up. Best performance occurs in full sun in acidic, organically enriched, moist to wet soils, but winterberry is somewhat adaptable to soils that are occasionally dry provided ample watering and rich vegetative mulch. Chlorosis and stunting will occur in alkaline pH soils. It is best to place the plants into their permanent positions as soon as possible, as transplanting of mature plants may prove difficult.

LORE

Native Americans used various parts of winterberry for treatment of upset stomach, fever, lethargy, hay fever and diarrhea, hence the common name 'fever bush' and a tea was made from the dried and crumbled leaves. However, the fruit and leaves of Winterberry contain a potential array of toxins that can result in moderate to severe nausea, vomiting and diarrhea. So, we highly recommend using winterberry for more traditional uses of beautifying you landscape and perhaps taking cuttings of the berry laden branches to grace your holiday table – they will last a long, long time!



Bob Edelen, DNPS Member



Photo: Robert H. Mohlenbrock. USDA SCS. 1989. Midwest wetland flora: Field office illustrated guide to plant species. Midwest National Technical Center, Lincoln, NE. Courtesy of USDA NRCS Wetland Science Institute.

Resources & Reviews

Wildflowers and Winter Weeds

Authored by Lauren Brown. This book is specifically aimed toward winter identification of 135 common species of wildflowers and "weeds." Each plant is superbly illustrated with a full page drawing accompanied by an elegant description of the plant.

Resources & Reviews

Winter Botany

Authored by William Trelease. Identify over 1,000 species of vines, shrubs and trees in winter—most from northern U.S. with typical southern species—including ginkgo, bald cypress, poplar) by examining twigs, bark, buds, leaf scars, berries, other characteristics. Includes excellent key and drawings of particular identifying characteristics for each species. Over 1,000 illustrations.

FEATURE ARTICLE

Continued from page 3

mature forest on the other two sides.

On **4 September 2003**, Keith Clancy met with Rob Line (manager of the Cedar Creek Natural Area) to discuss details of the reforestation project.

Keith Clancy met with Chris Bennett (assistant land manager of the Cedar Creek Natural Area) on **8 September 2003** to perform a site visit and go over details of the project.

In **mid-September 2003**, the site was mowed for the last time by staff of the Division of Parks and Recreation.

Field work at this site was done over a five-week period from **4 October 2003-16 November 2003**, and resulted in the planting of 9,844 seeds at 2,461 flags. Most of the seeds were collected from the adjacent forest along Cedar Creek, but we also collected from other forests within the same watershed. We had numerous volunteers helping with the seeding of this site, including DNPS members, the general public, and even a girl scout troop from Washington DC!

The first survey for germination success, conducted on **15 May 2004**, yielded nothing! Not one seedling was located.

On **17 May 2004** another survey for germination success yielded a few oak seedlings along with one dogwood seedling.

More surveying was done on **30 May 2004** and more seedlings were located and 43 tree tubes were installed.

Fifty more tree tubes were installed on **31 May 2004**.

Additional surveys for seedlings on **5 June 2004** located 662 flags with 404 seedlings. At the time, we extrapolated that data over the entire field, and it yielded a result of approximately 1,485 seedlings existing in the field overall. Seventy-seven seedlings not at flags were also found.

Between **4 July 2004-21 August 2004** volunteers installed 471 tree tubes around seedlings.

Approximately 200-300 tree tubes were still in place on **30 April 2005**, most contained healthy plants. Again, it is not clear what happened to the other half of the tree tubes that were

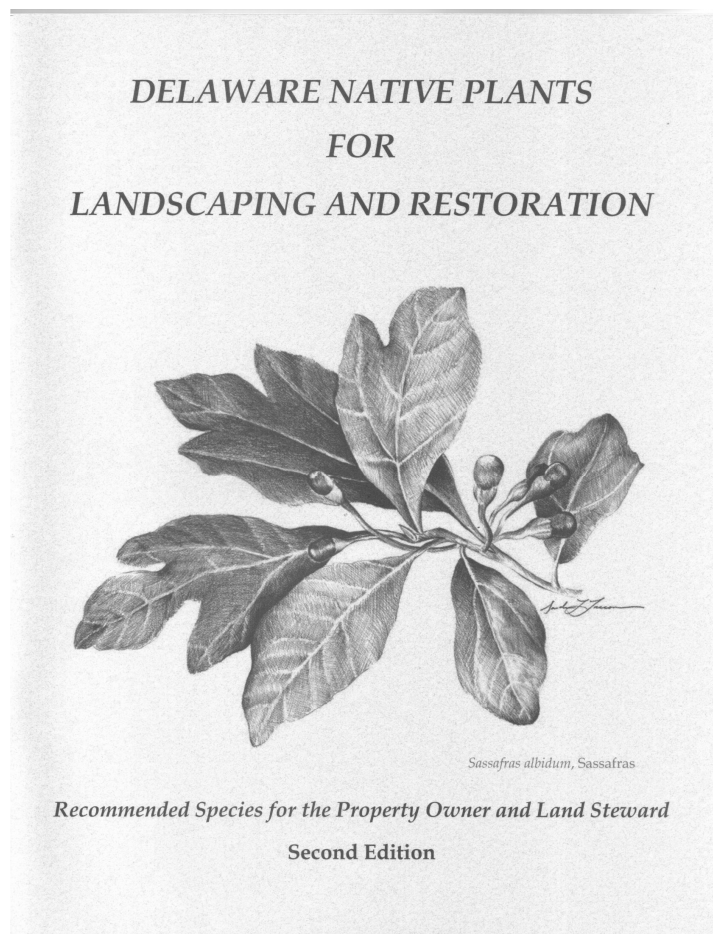
installed in 2004.

Eric Zuelke met with Rob Line on **25 July 2006** and discussed how Mr. Line has been leading the way in management of this site. He and his crews have been targeting select non-native invasive species for eradication. Some of these species include mimosa, locust trees, and multi-flora rose. Mr. Line and Eric perused the site for two hours talking about future management strategies and issues. We noticed that some of the trees previously treated with Garlon (an herbicide applied directly to the bark) did not totally die and we discussed different methods of dealing with these plants. We also targeted a few more species in need of control in order to improve the site. Overall, the site looks good and is well on its way to becoming a mixed loblolly pine/hardwood forest (approximately 50% softwoods & 50% hardwoods). There are some portions of the site that had 0% germination success, and other portions that had upwards of 50%-75% germination success. Additionally, we noticed many volunteer oaks and hickories growing along the edges of the site near the bordering mature forest, so the site is slowly moving in from the edges. Many of the previously installed tree tubes have been removed because they were doing more harm than good to the plants as they had fallen over and were smothering the plants. We felt removing the tree tubes was appropriate because we only observed a small amount of deer browse damage.

As of **October 2006**, we are generally pleased with the direction our reforestation sites are heading. There is a general consensus between all the experts involved that these four fallow fields we chose to reforest would have eventually become forest anyway, but that we have given them a 10-20 year head start. All of the sites have their pros and cons and they all have future challenges, particularly in terms of handling the rampant growth of sweet gum, and non-native invasive species. Management chores will be an annual undertaking, but we expected that when we started out on these projects, and with our collective knowledge and dedication, we will prevail in our efforts to make these little corners of Delaware beautiful places once again, and we will keep the DNPS members abreast of how things are going on a continual basis.

We extend our deepest thanks to all those individuals, DNPS members and non-members alike, who committed time and sweat to these projects; we could not have done them without your help. In addition, our thanks go out to Rob Line, Mark DelVecchio, Wes Conley, and Rob Gano with DNREC, and Annabella Larsen and George O'Shea at Prime Hook.





You may have heard the rumors, you may have read the teases in The Turk's Cap eluding to a new homeowner native plant booklet, you may have even purchased one already (we're a little late with this announcement), but regardless of all that, it's here!!!!

The Second Edition of the DE Native Plant Society's Delaware Native Plants for Landscaping and Restoration is now available!

With an additional 2 pages of information, and an additional 44 new species, and one whole new section on ground covers, this new booklet is a veritable cornucopia of information. It even has a new color scheme!

It's still only \$5.00, and we have plenty of them to go around. It's a great resource for anyone venturing into native gardening-or for those with established gardens, a good source of inspiration for new species to add. We've had many people order them as gifts too.

Resources & Reviews

Winter Tree Finder (Nature Study Guides)

Authored by May T. Watts and Tom Watts. contains wonderfully clear illustrations showing the branch pattern, bud shape, fruit, and appearance of all the major midwestern and eastern tree species. You can find more comprehensive tree books, but not one that better combines breadth and utility.

Upcoming Events

TUESDAY, 19 JANUARY 2007—DNPS BI-MONTLY MEETING. WE ORIGINALLY HAD A WINTER PLANT IDENTIFICATION WORKSHOP SCHEDULED FOR THE PROGRAM FOR THIS MEETING, BUT CIRCUMSTANCES HAVE FORCED US TO CHANGE OUR PLANS AND WE WILL HAVE A PRESENTATION ON SUBMERGED AQUATIC VEGETATION INSTEAD.

6 & 7 FEBRUARY 2007—THE MORRIS ARBORETUM OF THE UNIVERSITY OF PENNSYLVANIA WILL BE HOLDING THEIR 17TH ANNUAL SYMPOSIUM: NATURE'S UNSEEN INFLUENCES AND THE ART OF GARDEN DESIGN. THIS TWO-DAY SYMPOSIUM WILL BE HELD ON TWO DIFFERENT SETS OF DATES AT TWO DIFFERENT LOCATIONS IN FEBRUARY. THE LOCATIONS ARE IN PA AND CT. FOR MORE INFORMATION ON THE PA LOCATION EVENT CALL 215.247.5777, OR ON THE WEB AT [HTTP://WWW.BUSINESS-SERVICES.UPENN.EDU/ARBORETUM/SYMPOSIA2.HTML](http://www.business-services.upenn.edu/arboretum/symposia2.html)

SATURDAY, 10 FEBRUARY 2007—DNPS SEED PROPAGATION WORKSHOP: A REPRISE OF OUR POPULAR 2005 WORKSHOP. WE ARE CURRENTLY WORKING ON THE FINISHING TOUCHES FOR THIS WORKSHOP. PLEASE CALL 302.653.6449 FOR MORE DETAILS AND TO REGISTER.

SATURDAY, 10 FEBRUARY 2007—KEYS TO PLANT IDENTIFICATION PROGRAM BY THE MARYLAND NATIVE PLANT SOCIETY. THIS PROGRAM IS DESIGNED FOR THOSE WITH LITTLE OR NO EXPERIENCE AND WILL FOCUS ON IDENTIFYING TREES USING THEIR TWIGS AND BARK AND HAS A \$3 REGISTRATION FEE. EMAIL KMOLINES@CHESAPEAKE.NET FOR MORE INFORMATION, OR ON THE WEB AT [HTTP://WWW.MDFLORA.ORG/EVENTS/TRIPS.HTML#KEYPID](http://www.mdflora.org/events/trips.html#KEYPID)

THURSDAY, 15 FEBRUARY 2007—BOWMAN'S HILL WILDFLOWER PRESERVE 7TH ANNUAL LAND ETHICS SYMPOSIUM: CREATIVE APPROACHES FOR ECOLOGICAL LANDSCAPING. THIS DAY-LONG SYMPOSIUM WILL BE HELD IN LANGHORNE PA, AND WILL FOCUS ON WAYS THAT ENVIRONMENTAL PROFESSIONALS CAN CREATE ECONOMICAL AND ECOLOGICALLY BALANCED LANDSCAPES USING NATIVE PLANTS AND RESTORATION TECHNIQUES. KEYNOTE SPEAKER IS DR. ROGER LATHAM. CALL 215.862.2924 FOR MORE INFORMATION, OR ON THE WEB AT [HTTP://WWW.BHWP.ORG/NEWS_MEDIA/2006_SYMPOSIUM_7TH.HTM](http://www.bhwp.org/news_media/2006_symposium_7th.htm)

DNPS BI-MONTHLY MEETINGS FOR 2007—ARE CURRENTLY SCHEDULED FOR 16 JANUARY, 19 MARCH, MAY (ANNUAL MEETING-MORE DETAILS TO COME), 17 JULY, 18 SEPTEMBER, 3 NOVEMBER (NOT A MEETING, BUT THE ANNUAL PLANT SALE) AND 20 NOVEMBER. ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT THE ST. JONES RESERVE AT 7 PM, UNLESS OTHERWISE NOTED.

Membership Application

DELAWARE NATIVE PLANT SOCIETY

Member Information

Name:

Business Name or Organization:

Address:

City and Zip Code:

Telephone (home/work):

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- ☐ Full-time Student \$10.00
- ☐ Individual \$15.00
- ☐ Family or Household \$18.00
- ☐ Contributing \$50.00
- ☐ Business \$100.00
- ☐ Lifetime \$500.00
- ☐ Donations are also welcome \$ _____

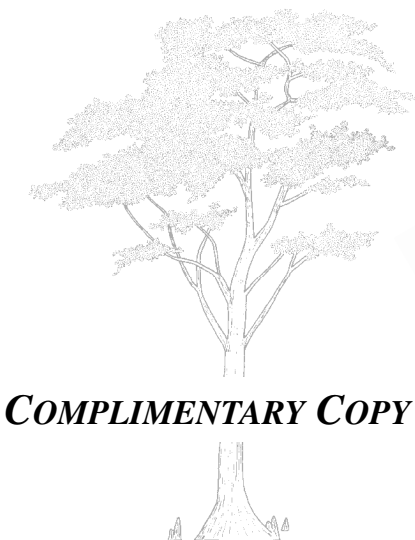
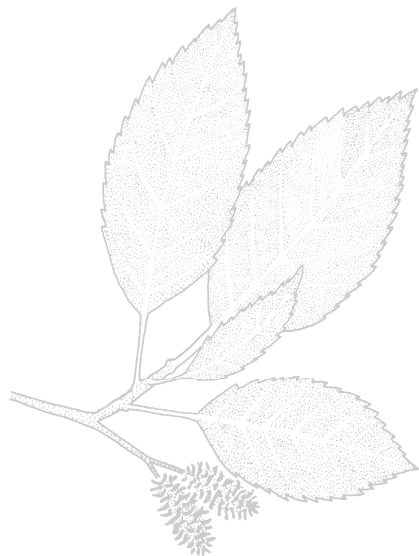
Membership benefits include:

- * The DNPS quarterly newsletter, The Turk's Cap
- * Native plant gardening and landscaping information
- * Speakers, field trips, native plant nursery and sales

Total Amount Enclosed: \$

**Make check payable to:
DE Native Plant Society
P.O. Box 369, Dover, DE 19903**

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