

THE TURK'S CAP

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY SPRING 2007

IN THIS ISSUE

- Page 1** ■ *Natural Quotes*
 ■ *New Members*
 ■ *DNPS Vision*
- Page 2** ■ *Thoughts From The Edge...*
 ■ *Resources and Reviews*
- Page 3** ■ *Feature Article*
 ■ *Resources and Reviews*
- Page 4** ■ *Gardening With Native Plants*
 ■ *Resources and Reviews*
- Page 5** ■ *Feature Article continued*
 ■ *Resources and Reviews*
 ■ *Event Highlight*
- Page 6** ■ *Booklet Announcement*
 ■ *Resources and Reviews*
- Page 7** ■ *Upcoming Events*

NATURAL QUOTES

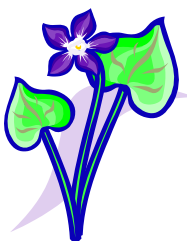
"A feme may come, leaf-green,
 Whose coming may give revel
 Beyond revelries of sleep,
 Yes, and the blackbird spread its tail,
 So that the sun may speckle,
 While it creaks hail."

Wallace Stevens

A WILDFLOWER REACHING FOR THE SUN WELCOME TO OUR NEWEST MEMBERS

January through March

Paul & Polly Sierer
 Ronald Simpson



The DNPS Vision

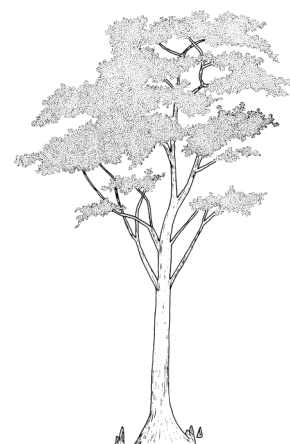
The purpose of the Delaware Native Plant Society (DNPS) is to participate in and encourage the preservation, conservation, restoration, and propagation of Delaware's native plants and plant communities. The Society provides information to government officials, business people, educators, and the general 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.

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 UPDATE**

The DNPS was contacted by one of our members back in February about a site located in Caroline Co., MD that was going to be converted into a new land-fill. The approximately 70 acre site was mainly upland forest with a small brook flowing through it. We made every effort to access the site as soon as we could, but because of logistics, access permissions, and the freezing weather, we could not make it in time. Approximately 5 weeks later, most of the 70 acres had been clear cut. The first joint trip between the MNPS and DNPS to the site to do actual digging of plants was on April 14th, 2007. Unfortunately, no representatives from the DNPS could make it. But, there is good news; the nursery manager has permission to access the site until fall of 2007. We are hoping to be able to schedule several full volunteer trips to this site during the spring and summer as varying species appear, but these plans are currently on hold as legal issues among the land owners and the county are worked out. We'll keep you informed.

We have also been contacted by a representative of the DE Div. of Parks and Recreation who is also a Society member about a proposed water park at Trap Pond State Park. The water park is slated to destroy approximately 5-10 acres of forested land. We are hoping to be able to access this site at least once prior to construction activities, but hopefully more than that. We will inform everyone as soon as we hear more details about this.

SOCIETY INTERN

As many of you know, each year we bring on an "intern" to work in the nursery. This year's intern is Andrew Kluge. Andrew is a Delaware native and currently lives in Magnolia. He is an 18-year old

senior at Polytech High School who will be getting his diploma in Environmental Science and is also in the Future Farmers of America program. Andrew has competed in the state and national Envirothon competitions with impressive results. He will be helping the DNPS out by working in the nursery planting seeds, repotting, and doing general nursery chores. He will also be doing reptile, amphibian, and fish surveys at our adopt-a-wetland site at Big Oak County Park.

NURSERY UPDATE

The nursery is up and running for the season! During March the nursery manager and one Society volunteer completely overhauled the greenhouse by re-leveling it, adding new gravel, redoing the wire frame supports on the PVC pipes, installing a new plastic covering, and adding some wooden supports to the existing PVC pipe benches. The greenhouse looks great right now! Our intern has been busy filling the greenhouse with flats of newly planted seeds and is currently busy with repotting a lot of seedlings from last year's inventory. Many of the plants (about half) that we acquired from the plant rescue at Killens Pond State Park in December 2006 did not make it, but the survivors are starting to leaf out and will make a good addition to our inventory.

LOOKING FOR AN EVENTS COORDINATOR

Quentin Schlieder, who has been our Events/Program Coordinator for many years now is taking a sabbatical for awhile and we are looking for a replacement. The person in this position would have the important job of scheduling speakers for our bi-monthly meetings, scheduling field trips and field trip leaders, scheduling workshops and workshop leaders, planning the annual meeting (with the help of all of the

Continued on page 5

Resources & Reviews***Spring Wildflowers of New England***

Authored by Marilyn J. Dwelley. With hundreds of entries and nearly 500 illustrations, *Spring Wildflowers of New England* is a unique and indispensable guide. Each listing includes thorough text descriptions of the leaf and flower, as well as information on range, habitat, and growth habits. Latin names, common names, and family are also included. Best of all, each entry is complemented by Marilyn Dwelley's elegantly detailed watercolors.

Resources & Reviews

Spring Wildflowers of West Virginia

Authored by Earl Lemley Core. Originally published in 1948, this is the seminal text on nearly 250 species of spring wild flowers found in West Virginia. Common or English names and scientific or Latin names are given for each species. The descriptions are in two sections: the first description includes the meaning of the name of the flower, uses, habitats, and ranges in West Virginia. Secondly, the plant itself is described in deep detail to help in identification. Each description is accompanied by a facing page detailed line drawing. This book is a must have for those interested in the beauty and science of West Virginia's spring flora.

FEATURE ARTICLE

NATIVE EDIBLE AND MEDICINAL PLANTS

Numerous native plants are edible or have been utilized for their medicinal properties, and among these are attractive plants that can be grown in appropriate habitats in Delaware. A native wildflower, great blue lobelia (*Lobelia siphilitica*), has a raceme of beautiful blue-lavender flowers. The specific epithet "*siphilitica*" indicates one former medicinal use of this plant. Native Americans used it as a root tea to treat syphilis; and also made a leaf tea for colds, fevers and worms. Poultices of leaves were used to treat headaches and to heal sores. This perennial wildflower grows one to two feet tall in moist soil and on stream banks. A related species, *Lobelia cardinalis*, is called cardinal flower for its striking scarlet flowers. It was used medicinally by Native Americans in a similar fashion to *L. siphilitica*, including use as a treatment for syphilis. Cardinal flower is a plant of wet habitats, growing to two to three feet in height. Both of these *Lobelia* species are potentially toxic.

Cattails, *Typha angustifolia* and *T. latifolia*, are "possibly one of the best and certainly the most versatile of our native edible plants", according to Peterson's Field Guide to Edible Wild Plants (1977). The young shoots and stalks can be peeled and eaten raw. The immature flower spikes (just before they emerge from their leaf sheaths) can be boiled and eaten like corn on the cob. Dried pollen can be added to flour for use in baking. Pollen is harvested by shaking the male inflorescence into a bag (the male flower cluster grows above the familiar brown, sausage-like female flower cluster). Flour can be prepared from the underground parts. Cattails grow in shallow water and marshes.

Spicebush (*Lindera benzoin*) is a dioecious shrub (separate male and female plants) of moist woods. With tiny yellow flowers, spicebush is not a showy ornamental, but it has wonderful spicy-scented leaves, flowers and twigs. A fragrant tea can be prepared from the young leaves, twigs and bark, by placing these in hot water for approximately 15 minutes. The berries have been used as an all-spice substitute. Native Americans and settlers also used teas made from the berries, twigs or bark to treat ailments such as cough, fever and colds.

A beverage can be prepared from the red-fruited sumac species: winged sumac (*Rhus copallinum*), staghorn sumac (*R. typhina*), and smooth sumac (*R. glabra*). These shrubs, usually found in sunny open or edge habitats, have dense clusters of small red fruits covered with acidic red hairs. These fruit clusters are harvested when they ripen (before rain washes out the acid), rubbed gently, and soaked in cold water for approximately 15 minutes. The resulting pink "lemonade" is strained through cheese cloth and sweetened with sugar. A related

species, poison sumac (*Toxicodendron vernix*), can cause severe dermatitis, but it is easily distinguished by its white (not red) fruits and it is uncommon in Delaware.

Black willow (*Salix nigra*) is a native tree of wet soils. A tea made from the bark was used by Native Americans for headaches, fever and diarrhea; and poultices of the bark were used externally for sprains, bruises and sores. We now know that the bark contains salicin, which has a similar action in the human body to the closely related acetyl-salicylic acid (aspirin), widely-used today to reduce fever, pain and inflammation.

It must be emphasized that plants should be carefully identified before ingestion. Some plants are toxic, or have some parts that are edible while other parts are toxic, or need special preparation to remove toxic ingredients. Some poisonous species closely resemble edible ones. There are numerous references on edible and medicinal wild plants, two of which are listed below.

References

Peterson, Lee Allen. 1977. A Field Guide to Edible Wild Plants, of Eastern and Central North America. Peterson Field Guide series. Houghton Mifflin.

Foster, Steven and James A. Duke. 2000. A Field Guide to Medicinal Plants and Herbs, of Eastern and Central North America. Peterson Field Guide series. Houghton Mifflin.

■ Susan Yost, DNPS Member. Illustration of *Lobelia siphilitica* by Katie Yost.



GARDENING WITH NATIVE PLANTS

SMOOTH BLACK-HAW (*VIBURNUM PRUNIFOLIUM*)

NATURAL HISTORY

It's early spring and most nature lover's eyes are trained on Delaware's forests and fields for the earliest signs that Mother Nature is loosening her winter grip upon the land. Soon a walk through Delaware's open woodlands, hedgerows, and forest edges will delight us all with the bright white floral bouquet of *Viburnum prunifolium* or black-haw (a perfect place to see black-haw is adjacent to the DNPS Nursery at the St. Jones Preserve and in surrounding woodlands!). Black-haw is native from Connecticut down the eastern seaboard to Florida and across to Texas. It typically blooms in Delaware during the month of May and provides a bounty of nectar in its 2 to 4.5 inch clusters of flowers. Numerous bees, butterflies and other insects are important pollinators of black-haw. It occurs as a small, bushy tree or large shrub, growing between 10 and 25 feet tall, with a short trunk that has a diameter of about 6 inches and is conspicuous with its alligator hide pattern similar to the flowering dogwood. In the fall, numerous clusters of shiny, bluish-black fruits appear on bright red stalks to the delight of numerous songbirds, game birds, deer, small mammals and humans (fruits are edible and may be eaten off the bush when ripe or used in jams and preserves). Over 20 bird species including robins, bluebirds, woodpeckers, quail, pheasant, orioles, catbirds, mocking birds and thrushes relish the fruits for their fat rich content. Black-haw is clearly a plant for all seasons. In summer this handsome plant has dense foliage that attracts numerous nesting birds and glossy green leaves that turn to shades of red and purple in fall.

WHERE TO GROW

Black haw is used widely as an ornamental because it possesses year-round qualities similar to those of flowering dogwood and is the perfect shrub or small tree for most any landscape. The flowers and berries are attractive, the tree is small and nicely shaped, and its bark adds exceptional winter interest. Black Haw will grow in a range of conditions from moist to dry conditions, is drought tolerant, will perform well in light (sandy), medium (loamy) and heavy (clay) soils and can grow in nutritionally poor soils with a Ph ranging from acid to neutral to alkaline. The flowers are hermaphrodite (having both male and female organs) and are pollinated by insects. However, the plant is not self-fertile so an additional planting is required of a genetically distinct plant in the same species in order to produce fruit and fertile seed. The uses for black-haw are as varied as its flexibility. It can be grown singularly as a tree, trimmed to maintain a dense shrub, sheared to make a formal screen, grown along woodland edges as a colorful backdrop and planted in a open woodland setting where it will still perform exceptionally well. Any pruning should occur immediately after flowering

since flower buds form in mid-summer for the following year.

PROPAGATION AND CARE

Propagation may be accomplished either by planting seed or by cuttings of soft wood in early summer. For propagation from seed, fruits should be harvested as soon as ripe, macerated to remove the pulp and sown in a cold frame in a community pot or flat containing a sterile potting soil. Germination is slow taking up to 18 months so seeds sown in the fall should germinate in spring following their second winter. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in a cold frame or greenhouse. Plant out into their permanent positions in late spring or early summer of the following year. Propagation may also be accomplished by taking cuttings of soft wood in early summer, treated with a rooting hormone and set in a peatmoss/perlite medium in a greenhouse or cold frame protected from direct sun and kept humid. Once rooted, pot up the cuttings into individual pots and continue to grow in greenhouse or cold frame and plant them out in late spring or early summer of the following year.

LORE

Simply typing in black-haw in any search engine will yield a wealth of information on the value of this plant both past and present. Native Americans used the bark of the stems and roots of black-haw to brew a medicinal tea primarily as a pregnancy and childbirth aid and to treat menstrual difficulties. Others used black-haw to calm muscle spasms, promote sweating, treat fever and smallpox, and as a wash for sore mouths. European settlers adopted black-haw for many of the same treatments. black-haw was also considered helpful in treating asthma, bleeding, nervous irritation, and muscle spasms in any part of the body. One of black-haw's other common names is Cramp Bark derived from the folk use of bark preparations as a remedy for muscle cramps. Today, this shrub is still used in herbal medicine for its antispasmodic and astringent properties. People eat the fruits, often called haws, and they are locally used in making jams, preserves, sauces and drinks.



■ 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

Appalachian Wildflowers

Authored by Thomas E. Hemmerly. This informative field guide covers the wildflowers of the entire Appalachian region, Using this book, readers will learn to identify this region's wildflowers by shape, color, family, and habitat. Contains 378 color plates.

Resources & Reviews

The Wildflower Gardener's Guide: Northeast, Mid-Atlantic, Great Lakes, and Eastern Canada Edition

Authored by Henry Warren Art. A new arrangement of the 32 most easily grown species native to northeastern North America organized by habitat (woodland, wetland, or meadow) and flowering season will aid garden planning. Includes color photographs and more advice on using wildflowers in a garden.

THOUGHTS FROM THE EDGE OF THE GARDEN

Continued from page 2

Officers of course) and writing up announcements for all these events to be sent to Eric to be emailed out to the membership. The position has some flexibility as to just how many activities will be scheduled. The bi-monthly speakers are very important, but field trips and workshops are more open. We like to do at least one field trip and one workshop per year, but if you are ambitious and want to schedule more, then you have that flexibility. Time spent on planning activities and speakers would only be a few hours per month, and the calendar of events is normally set up for a whole year in advance. If you are interested, please contact Bill McAvoy at 302.653.2880, or william.mcavoy@state.de.us, or contact Eric Zuelke at 302.735.8918, or ezuelke@juno.com.

ADOPT-A-WETLAND UPDATE

Our adopt-a-wetland site at the new Big Oak County Park is looking great so far. The site actually consists of 3 wetlands that are somewhat separate from each other on the surface, but more or less hydrologically connected underground. The first site is a complex of 3 artificially created ponds, the second site is a floodplain forest corridor with a small stream flowing through it, and the third site is a small wet meadow. One of our first tasks was to write a management/monitoring plan for all these sites which we are currently in the midst of. The animal surveys have begun and we have discovered 5 species of Anurans (frogs and toads) so far. The bird surveys will begin in May, with reptile and fish surveys in May as well. The flora of the park will be surveyed throughout the spring and summer, and full plant community classifications for each habitat will be determined as well. We may also be scheduling some volunteer work

days to do non-native species eradication. We will keep everyone up-to-date as the management and monitoring plans progress.

10 YEARS OF COMPOSITION

If you look in the upper right-hand corner of the cover page of this newsletter, you will notice that it says Volume 10, Number 1. That's right, we are entering our 10th year of the Turk's Cap newsletter. Amazing how the time goes by! As your Editor, I would like to thank all those that have contributed your time, effort, and intellect to this newsletter. If everyone sticks with me, I think the future of our little newsletter will be just as bright as the past has been.

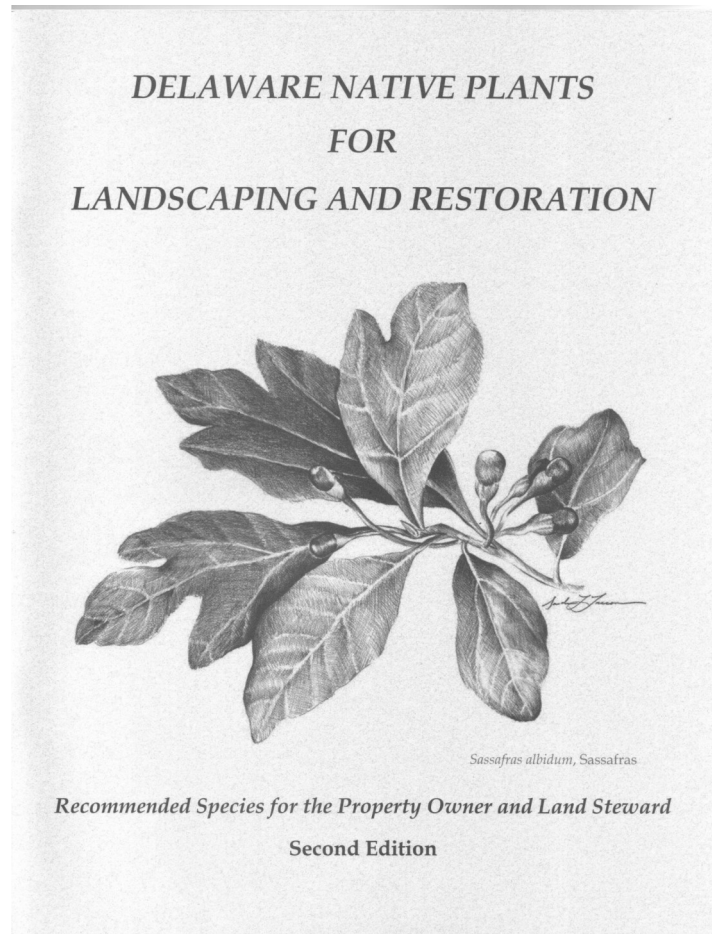


EVENT HIGHLIGHT

SEED PROPAGATION WORKSHOP

This was a reprise of our popular seed propagation workshop in February 2005. The event was held at the Meeting House in Smyrna, and our 19 participants learned about techniques like scarification, stratification and proper propagation methods for many species. Quentin Schlieder hosted the event and gave a lecture on seed propagation first, then handed out materials to everyone. Seeds were planted in small pots with a special mix of soil that Quentin put together. The species that we planted during the workshop were, *Aquilegia canadensis* (wild columbine), *Arisaema triphyllum* (jack-in-the-pulpit), *Asclepia tuberosa* (butterfly weed), *Lobelia cardinalis* (cardinal flower), and *Maianthemum racemosum* (false Solomons seal). The participants then learned how to properly water new seeds, and they took them home to grow and keep for their home gardens.





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, 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

Wild Orchids of the Northeast: New England, New York, Pennsylvania, and New Jersey

Authored by Paul Martin Brown. This forthcoming publication is a complete revision and expansion on his previous work. The author incorporates 10 years of additional research and field work into this book. The guide provides quick access to information such as species checklists, conservation information, and regional flowering time charts.



SATURDAY, 5 MAY 2007—SPRING EPHEMERAL WALK NEAR GREENSBORO, MD. FROM 10:30 AM TO 12 NOON. LED BY NICK AND MARGARET CARTER ON THEIR OWN PROPERTY. THE CARTERS HAVE TENDED THEIR FOREST FOR MORE THAN THIRTY YEARS ENCOURAGING THE NATIVE SPRING WILDFLOWERS TO GROW IN ABUNDANCE. THE PINE WOODS HAVE A HUGE STAND OF PINK LADY'S SLIPPER ORCHIDS. NICK AND MARGARET HAVE TAUGHT MANY ECOLOGY CLASSES TO ALL AGES AND ARE A WEALTH OF INFORMATION ABOUT THE LOCAL FLORA AND FAUNA AND THE HISTORY OF THE LAND. CALL 410.634.2847 FOR MORE INFORMATION, OR ON THE WEB AT WWW.MDFLORA.ORG/EVENTS.

SATURDAY, 5 MAY 2007—SPRING NATIVE PLANT SALE. FROM 9 AM TO 2 PM AT THE JAMES FARM ECOLOGICAL PRESERVE, CENTER FOR THE INLAND BAYS. CALL 302.226.8105 FOR MORE INFORMATION.

5-6 MAY 2007—DELAWARE NATURE SOCIETY ANNUAL SPRING NATIVE PLANT SALE. TAKES PLACE AT THE COVERDALE FARM NEAR GREENVILLE, DE. HUNDREDS OF TREES, SHRUBS, PERENNIALS, GRASSES, AND AQUATICS ARE AVAILABLE. CALL 302.239.2334 FOR MORE INFORMATION, OR ON THE WEB AT WWW.DELAWARENATURESOCIETY.ORG.

SATURDAY, 12 MAY 2007—ADKINS ARBORETUM ANNUAL SPRING NATIVE PLANT SALE. THE SALE FEATURES A WIDE RANGE OF TREES, SHRUBS, GRASSES, AND PERENNIAL HERBACEOUS PLANTS, MOSTLY NATIVE TO THE CHESAPEAKE BAY WATERSHED. MASTER GARDENERS ARE ON HAND TO ANSWER QUESTIONS AND MEMBERS RECEIVE A 10% DISCOUNT ON ALL PLANTS. CALL 410.634.2847 FOR MORE INFORMATION, OR ON THE WEB AT WWW.ADKINSARBORETUM.ORG.

2 JUNE 2007—DE NATIVE PLANT SOCIETY ANNUAL MEETING. THIS YEARS ANNUAL MEETING IS STILL IN THE PLANNING STAGES, SO WE DO NOT HAVE ANY DETAILS YET. THE LOCATION, TIMES, EVENTS, AND SPEAKERS WILL BE ANNOUNCED AS SOON AS POSSIBLE.

7-9 JUNE 2007—NATIVE PLANTS IN THE LANDSCAPE CONFERENCE AT MILLERSVILLE UNIVERSITY. THE 17TH ANNUAL CONFERENCE AT MILLERSVILLE WILL HAVE RICK DARKE, DOUGLAS TALLAMY, MARCUS DE LA FLEUR, PLINY FISK III, AND JIM MCCORMAC AS FEATURED SPEAKERS. LECTURES, FIELD TRIPS, AND WORKSHOPS ALONG WITH A NATIVE PLANT SALE AND BOOK SALE MAKE THIS A GREAT CONFERENCE EVERY YEAR. REGISTER BY MAY 23 AT WWW.MILLERSVILLENATIVEPLANTS.ORG, OR CALL THEM AT 717.872.3030.

18-21 JULY 2007—THE ANNUAL CULLOWHEE CONFERENCE ON NATIVE PLANTS IN THE LANDSCAPE. TO BE HELD AT WESTERN NORTH CAROLINA UNIVERSITY. TOPICS RANGE FROM RESIDENTIAL TO COMMERCIAL LANDSCAPES, FROM SPECIES SPECIFIC DETAILS TO OVERALL PHILOSOPHICAL CONSIDERATIONS, FROM BACKYARDS TO HIGHWAY RIGHT-OF-WAYS, HOW TO START A NATIVE PLANT NURSERY TO HOW TO ESTABLISH A NATIVE MEADOW. THERE WILL ALSO BE NATIVE PLANT VENDORS EXHIBITING PLANTS, MANY BOOKS FOR SALE, AND SCHOLARSHIP OPPORTUNITIES FOR STUDENTS. CALL 800.928.4968 FOR MORE INFORMATION.

DNPS BI-MONTHLY MEETINGS FOR 2007—ARE CURRENTLY SCHEDULED FOR 16 JANUARY, 20 MARCH, 2 JUNE (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):

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 \$ _____

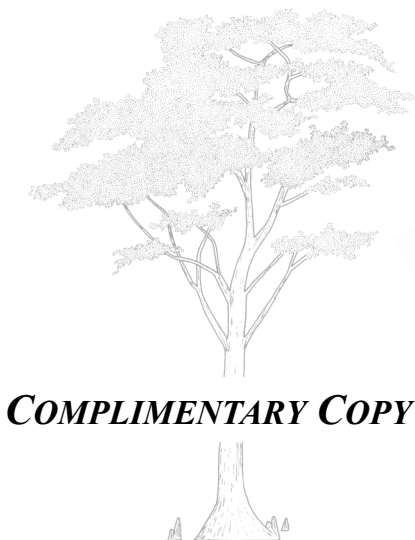
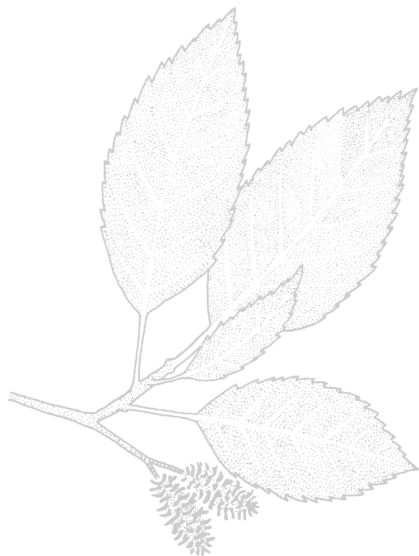
Membership benefits include:

- * 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: \$

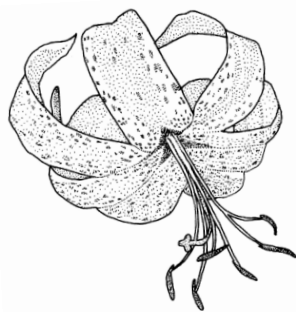
**Make check payable to:
DE Native Plant Society
P.O. Box 369, Dover, DE 19903**

**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 SUMMER 2007

IN THIS ISSUE

- Page 1** ■ *Natural Quotes*
 ■ *New Members*
 ■ *DNPS Vision*
- Page 2** ■ *Thoughts From The Edge...*
 ■ *Resources and Reviews*
- Page 3** ■ *Feature Article*
 ■ *Resources and Reviews*
- Page 4** ■ *Gardening With Native Plants*
 ■ *Resources and Reviews*
- Page 5** ■ *Feature Article continued*
 ■ *Resources and Reviews*
- Page 6** ■ *Booklet Announcement*
 ■ *Resources and Reviews*
- Page 7** ■ *Upcoming Events*

NATURAL QUOTES

"Love of the land is the basis for the unending struggle of those who really care against those who see only material rewards."

Sigurd F. Olsen, *Reflections from the North Country*, 1976

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 GLOWING RED-ORANGE SUNRISE WELCOME TO OUR NEWEST MEMBERS

April through June

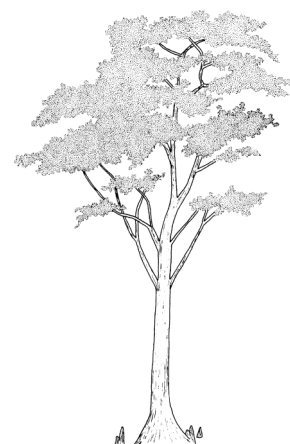
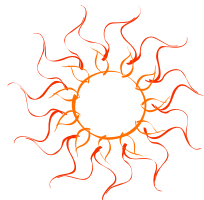
Jeremy & Emmalea Ernes
 Cece & Ed Niemi
 Martha Stephens
 Donna Valese

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**SOCIETY INTERN**

Our intern for the year has completed his mission and is now done with his internship with the Society. He was a senior at Polytech High School and has successfully graduated as well, so we wish him luck in his future botanical adventures.

2008 DNPS CALENDAR

We've been working on this for a while, but we finally have a completed draft. Member, and photographer extraordinaire, David G. Smith has been working on this and has gone with an online company to do the printing. The company is www.lulu.com which does "on demand" printing. We still have some tweaking to do with the format of the calendar, but once it is done, the 12-month calendar will have two forms of availability. The first will be a small number of them on hand at events such as our native plant sale, where you can purchase one in person. The second is through www.lulu.com. Pricing has not been established yet, but the cost will be around \$17.00 to \$20.00. Once we have all the details worked out, and an availability date set, we will inform everyone.

MEETINGS IN ALL 3 COUNTIES

For years now we have been having our bi-monthly meetings at the St. Jones Reserve here in Kent Co., but have had many members say that they would like to come to meetings, but it is too far to drive. We had a discussion about this at our last meeting and we are going to change meeting locations. We have a total of 6 meetings each year, and from now on will have 2 in Sussex, 2 in Kent, and 2 in New Castle counties. The location in Kent will stay the same at the St. Jones Reserve. The location in New Castle will be at

the office of the New Castle County Conservation District at 2430 Old County Rd., Newark, DE, 19702. We are currently looking for a location in Sussex, and if anyone has any ideas, please contact Bill at william.mcavoy@state.de.us. Details of each meeting will be sent out at later dates.

NURSERY UPDATE

The nursery is in full swing right now. The heat and drought of May hit hard and we lost some plants. June was good with the temperature and rainfall and we caught back up, but so far July has been rough. Overall, the plants are doing fine, but they all need to be watered every other day. The automated sprinkler system in the greenhouse works perfectly and has drastically reduced mortality, so we are very happy with that. We haven't scheduled any volunteer work-days yet because the nursery managers schedule changes on a daily basis and it is difficult to schedule or coordinate things in advance.

LOOKING FOR AN EVENTS COORDINATOR

Quentin Schlieder, who has been our Events/Program Coordinator for many years now is taking a sabbatical and we are looking for a replacement. The person in this position would have the job of scheduling speakers for our bi-monthly meetings, scheduling field trips and field trip leaders, scheduling workshops and workshop leaders, planning the annual meeting (with the help of all of the Officers) and writing up announcements for all these events. If you are interested, please write to ezuelke@juno.com.

ANNUAL MEETING

President, Bill McAvoy is still working on this, but we are making progress. We have yet to set a date,

Continued on page 5

Resources & Reviews***More Wildlife On Your Land: A Guide for Private Landowners***

Authored by Neil F. Payne. a how-to book written in everyday language for the layperson—mainly the landowner who owns a few or many acres in the United States and Canada. This book describes how you can change your habitat to attract more wildlife, from songbirds to deer, to your property.

Resources & Reviews

Wildlife Habitat Management of Forestlands, Rangelands, and Farmlands

Authored by Neil F. Payne & Fred C. Bryant. This book brings together an extensive compilation of tried-and-proven manipulation techniques for enhancing the biodiversity of upland habitat for edge and interior game and non-game wildlife.

FEATURE ARTICLE

LANDSCAPE DESIGN BASICS

So, you've just moved into an old house that you built an addition on to and renovated with recycled building materials and solar power equipment. The yard is chewed up from the bulldozer and trucks, a tree had to be felled, and you took the opportunity to cut down and rip out all the previous Japanese honeysuckle, autumn olive, and juniper plantings. What's left is a muddy, grassless barren landscape: a perfect canvas to let your artistic imagination flourish and do a little landscape design.

Landscape design has numerous facets to it and can, if you let it, be an overwhelming task. However, creativity and organization are the keys. Of critical importance in the landscaping process is harnessing your ideas and creating a plan in advance. You don't want to have to do this physically demanding work more than once. Understand each phase of the job well and how it relates to the project as a whole. Create a step-by-step guide for yourself, as this will organize all your thoughts on paper. One initial purpose of landscape design is to meld human technology (e.g., a house, deck or barn) into the natural surroundings. This is achieved by exploring all your landscaping options: from plant selection to ponds and waterfalls to hardscapes (e.g., retaining walls, walkways, trellises, arbors, gazebos) to lighting. It's also important to remember that location is a major factor in the design. Plants and construction principles will vary geographically. Local nurseries, books with hardiness planting zones, local county extension offices, and botanical guides will all have good tips. In the end, common sense is the key as you answer some basic questions: are the lighting conditions full sun, partial sun, or shade? Is the elevation high and dry or low and moist? Is the soil acidic or alkaline, rich organic or sandy? Is the climate hot, cold, rainy, desert, windy, salty? You may have a combination of these conditions (microclimates) on your property.

With the analysis discussed above, you can pick the appropriate vegetation and design for your particular situation. For example, if you have a very moist, low-lying area on your property, you would select plants that naturally grow in that habitat, such as sweet pepperbush (*Clethra alnifolia*), fetterbush (*Leucothoe racemosa*), and pin oak (*Quercus palustris*). I strongly encourage you to incorporate native plants into your landscape, including native vegetation already on your property. Additionally, be sure to account for possible damage to the existing site; check utility and water line placement, and safe equipment access.

Now you can let some creativity come into the mix by combining elements of art and science to create a functional, aesthetically pleasing living space. When planning bed

locations, hardscapes and appropriate plants, you may want to consider the following: line, texture, scale, linear perspective and focal points, unity through consistent style, balance, transition, proportion, repetition, rhythm, plant shapes, and the many different types of color schemes. The best way to visualize all of these elements is to take a picture of your house, various views of the yard and from inside the house looking out windows. If you own a digital camera, you have the opportunity to utilize one of the many landscape design computer programs on the market. You simply open the digital pictures you took and add graphics and symbols to the picture to make your visions come to life. You can also take basic measurements of your property and sketch things out on graph paper to make a blueprint. It's especially important to keep in mind what your landscape design may look like 20 years from now, as it will be drastically different from when you first plant it. This future-oriented vision will keep you from placing the wrong plant in the wrong spot.

With plan in hand, you can now finally go outside. One of the first steps is to outline, with twine and dowel rods, the position of the elements you've chosen such as beds, retaining walls, patios, walkways, driveways, fountains, rock piles, trellises, arbors, pergolas, gazebos and lighting fixtures. Next, you could cut out circular pieces of cardboard or construction paper in the approximate ground-level diameter that your plants will reach at maturity and place them in the beds to get a feel for how things will be years from now to avoid any major blunders in placement. Now on to surface preparation and ripping up any remaining grass and unwanted vegetation that's in the way, and leveling the soil out. The next step is to build or install bed borders, retaining walls, walkways and wooden structures. And last but not least, installing lighting fixtures, watering systems, and planting all the plants.

Another way to go about landscaping your yard is creating native plant plantings and arrangements. If you decide to go this route there is less of need for establishing formal planting beds and hand surfaced structures, such as retaining walls, or brick or log borders.

There are many different ways to go about the process of landscape design, and the final design can be as simple or complex as you want it. No matter what you end up with, a little advanced planning, and some common sense will result in a beautiful yard that you and your family will enjoy for many years. The following is a list of a few websites to visit for more information, and lists of books: <http://www.taunton.com/store/index.asp>; <http://www.411homerepair.com/garden/landscapebooks.shtml>; <http://www.taoherbfarm.com/herbs/resources/design.htm>; <http://www.buildfind.com/bookstore>; <http://www.homestore.com/LawnGarden/> landscaping.



GARDENING WITH NATIVE PLANTS

HIGH BUSH BLUEBERRY (*VACCINIUM CORYMBOSUM*)

NATURAL HISTORY

It's about 5:00 PM on an early July day and I've just returned from the woods with about a cup full of mixed wild berries for tomorrow's cereal. Yesterday, my wife Nan picked a heaping quart of high bush blueberries – the first of the season, for a blueberry pie. Its now mid-summer and Delaware is blessed with a multitude of wild berries. From open fields to woodlands this is the time of year to grab a bucket and perhaps some insect repellent and head out in search of the numerous varieties of blueberries, blackberries, huckleberries, raspberries and others that call Delaware home. Of all the wild berries native to Delaware, perhaps the most favored is the high bush blueberry and for good reason! Not only are the berries relished for use in pies, jams and jellies, cobblers, ice cream desserts, cereal toppings, muffins, pancakes and toppings for any variety of desserts and they are extremely high on the list of the most healthy foods available. Top that off with their beautiful cascading lantern shaped flowers, large clusters of easily picked fruits and spectacular bright red fall colors it's hard to imagine a more perfect shrub for the landscape. Of course the high bush blueberry is not only a treat for us human types, they are most certainly a valuable resource for all variety of wildlife. In early spring, their flowers are visited by untold numbers of bees, moths, butterflies and other insects that in return for the rich nectar are essential pollinators. Then of course throughout mid summer, the berries are relished by countless numbers of birds (no less than 35 species of birds feed on their nutritious fruits) and mammals that compete for their nutrient rich bounty. It's no wonder that people who cultivate the large variety of commercial blueberries often find it necessary to place a fine mesh screen over their treasured plants to protect their berries from being pilfered by any variety of wildlife seeking an easy meal. Yes, the large numbers of commercially available blueberries are all derived from our wild high bush blueberry. Countless years of hybridizing have produced vigorous plants that are well behave and consistently yield large quantities of large fruits, but don't be fooled, there is no substitute for the rich flavor and healthy attributes of our own native un-altered high bush blueberry!

WHERE TO GROW

High bush blueberries are typically found growing in abundance in moist woodlands, roadsides and thickets throughout the Eastern United States and Canada. Growing from 5 to 15 feet in height, they are ideally suited to be grown in a thicket, along woodland edges, as the high point in a garden with other native berries or for the more harvest minded gardener in open rows or singular plantings. Blueberries require a relatively acid soil for good growth, so the soil should be within the range of

4.5 to 5.2 pH. Soils with a higher pH may require the addition of finely ground sulphur or aluminum sulfate to lower the pH. Though, high bush blueberries are typically found in forested areas, for maximum flowering and fruit production they should be grown where they receive a fair amount of sunlight for at least portions of the day. High bush blueberries are a hearty plant, capable of withstanding the harshest of Delaware's winters and are seldom affected by bacteria and viruses. Because of their somewhat bitter leaves they are not a favorite of herbivores, such as deer, rabbits and groundhogs, making them very suitable for more rural habitats. Regardless of your preference for their spring flowers, summer fruits, wildlife value or spectacular fall color, high bush blueberry most certainly deserves a place in your landscape!

PROPAGATION AND CARE

High bush blueberry will propagate readily from seed or from cuttings. From seed, collect and macerate the fully ripened fruits. Place the resulting mash in water and mix well. Most pulp and unsound seeds will float to the surface and may be skimmed off. After drying the seeds may be stored under refrigeration until ready for planting, however, the seeds of high bush blueberry do not require pretreatment for germination and may be planted immediately. Seeds will sprout and grow quite readily – when Nan and I used to grow orchids in our woods in the summer, it was not unusual to have numerous high bush blueberry seedlings sprout in the orchid pots after bringing them in for the winter – they would very quickly reach a height of 6 to 8 inches before we discovered the pesky plants and pull them out! Because wild high bush blueberries exhibit widely varying traits relative to fruit size and productivity, propagation by cuttings might be desired when a particularly productive specimen is found. Softwood cuttings will root best in May with decreasing success in as the summer progresses. Take healed cuttings that have just completed their primary growth and treat with a rooting hormone prior to planting in a peat/perlite mixture and mist regularly. Once rooted, cutting may be over wintered outside under protective layer of mulch.

LORE

High bush blueberries were a staple food of Native Americans. The fruits were eaten fresh off the bush, dried for later use or dried and mixed with other berries and strips of dried venison to make pemmican – an important winter staple. Of course, the value of high bush blueberries is unsurpassed for pies, jellies, jams and a multitude of mouthwatering desserts and toppings, and remember nothing beats to flavor of our wild native berries – good picking!



■ Bob Edelen, DNPS Member

Resources & Reviews

Wildlife Habitat Management of Wetlands

Authored by Neil F. Payne. This guide describes direct habitat management techniques for a wide variety of game and non-game species, and offers tried-and-proven techniques for improving, preserving, and developing wetlands.

Resources & Reviews

Conservation Management of Freshwater Habitats - Lakes, Rivers, and Wetlands

Authored by Neville C. Morgan & Peter S. Maitland. In this book the authors have applied research knowledge to the solution of practical problems facing wildlife conservation in freshwater habitats. Subjects covered include: evaluation of the conservation interest of sites; practical protection and management of freshwater habitats; species conservation.

THOUGHTS FROM THE EDGE OF THE GARDEN

Continued from page 2

but we should have it sometime in the early fall and are looking at the end of Sept. or early Oct., but not on a Sunday because of football season! Abbotts Mill has offered facilities for a meeting. Bill also discovered a wonderful place that could be a potential site; the Doe Branch Nature Preserve in Sussex County. It has old growth forest, cedar swamps, a great diversity of plants, and would be a fantastic place for a field trip.

PROBLEMS WITH BROWN-EYED SUSANS

DNPS members, Quentin Schlieder and Flavia Rutkosky, passed this information along to share.

Leaf Spots on Rudbeckia

Two common leaf spots affect rudbeckia in the St. Louis area. Both rarely endanger the survival of the plant but both can cause depreciation of the foliage. One is caused by a fungus and the other by a bacterium.

Symptoms and Diagnosis

Septoria leaf spot is caused by the fungus *Septoria rudbeckiae* and causes small 1/8 - 1/4 inch spots on the leaves. Small, black, pinpoint size fruiting bodies (pycnidia) form in the center of the spots. Lower leaves are affected first. The disease then moves up the plant by splashing water. Angular leaf spot of rudbeckia is most common on the cultivar 'Goldsturm'. It begins as small, brown, angular spots on lower leaves, which may appear water-soaked but can quickly expand to affect the whole leaf. It begins at the base of the plant and moves up. Angular leaf spot is caused by a bacterium. The absence of fungal

pycnidia and the presence of bacterial streaming under microscopic examination can be used to differentiate angular leaf spot from septoria leaf spot.

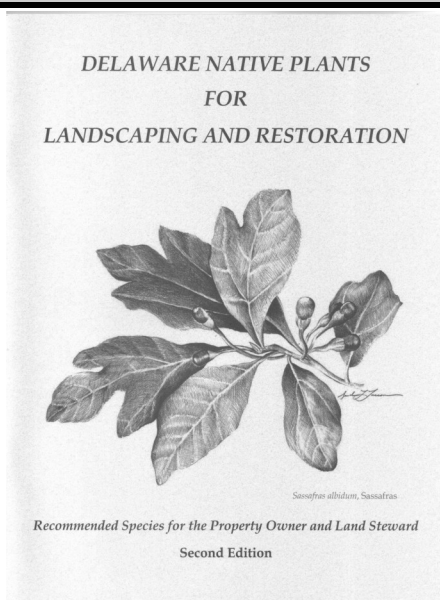
Life Cycle

Both organisms overwinter in infected debris in the garden. Initial infection occurs in late spring or early summer on the lower leaves and then spread up the plant. Plants are rarely killed, but plants can look unsightly by early fall.

Integrated Pest Management Strategies

1. Clean up old foliage each fall and then live with the disease. Sanitation can go a long way to helping control both diseases. Collect and dispose of old foliage in the fall or by late winter to help prevent early infection.
2. Provide good air circulation and avoid overhead watering. Keeping the leaves dry and help prevent movement of the fungi or bacteria by not watering overhead. If irrigation is necessary, use soaker hoses or at least water early in the day so the foliage can dry before nightfall.
3. Apply chemical protectants. Septoria leaf spot can be controlled with fungicides containing chlorophalonil or copper. Angular leaf spot can be controlled by applying a copper-based fungicide such as Bordeaux mixture as needed started in early spring. Kocide is also effective. Apply at the first signs of disease to protect healthy yet unaffected foliage. 

© Missouri Botanical Garden, 2001-2007



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. 🍄

TWO NEW UPCOMING COLUMNS

In the last issue (Spring 2007, Volume 10, Number 1) we had a Feature Article by member Susan Yost about medicinal and edible wild native plants. Well this got our brains spinning and we have decided to pick up where that article left off and include a new column that will feature a recipe using some wild, native plant(s) and details on harvesting, preparation and use. If anyone has a recipe that they know of, please send it in and we will include it in an issue.

The other idea we had for a fun article would be to do a "spotlight" on a Society member. This article would be an written interview with a set list of questions that person could answer and send in to us. Preferably, we would like to have people volunteer for this, as not all of us are keen to being published in a newsletter, but we may on occasion ask someone if they would be willing to participate. We have some very interesting members in this Society, and we would all benefit from learning about the nature side of your lives.

Resources & Reviews

Assessment and Management of Plant Invasions

Authored by James O. Luken & John W. Thieret. Biological invasion of native plant communities is a high-priority problem in the field of environmental management. Resource managers, biologists, and all those involved in plant communities must consider ecological interactions when assessing both the effects of plant invasion and the long-term effects of management. Sections of the book cover human perceptions of invading plants, assessment of ecological interactions, direct management, and regulation and advocacy. It also includes an appendix with descriptive data for many of the worst weeds.

U P C O M I N G

E V E N T S

SATURDAY, 11 AUGUST 2007—MARYLAND NATIVE PLANT SOCIETY GUIDED WALK IN DOWNS PARK, ANNE ARUNDEL COUNTY FROM 10 AM TO 3 PM. DOWNS PARK OVERLOOKS THE CHESAPEAKE BAY WITH A VARIETY OF HABITATS TYPICAL OF MARYLAND'S COASTAL PLAIN, INCLUDING MATURE UPLAND OAK-CHESTNUT-HEATH FOREST, SANDY OAK-PINE-HEATH WOODLAND, SPHAGNUM SEEPS, WETLANDS, AND SHORELINE HABITAT. WE WILL SEE A DIVERSITY OF NATIVE PLANTS AND WILDFLOWERS, SUCH AS AMERICAN CHESTNUT; A VARIETY OF OAKS AND PINES; MANY SPECIES OF FERNS; NUMEROUS HEATHS, INCLUDING SOUTHERN HIGH BUSH BLUEBERRY; AND MANY SUMMER WILDFLOWERS, SOME OF WHICH ARE SCARCE CLOSER TO WASHINGTON AND BALTIMORE. CONTACT ROD/MEGHAN, CECROPIA13@MSN.COM OR 301-809-0139, OR ON THE WEB AT [HTTP://WWW.MDFLORA.ORG/](http://www.mdflora.org/) EVENTS FOR MORE INFORMATION.

AUGUST & SEPTEMBER 2007—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.

SEPTEMBER 2007—BOWMAN'S HILL WILDFLOWER PRESERVE FALL PLANT SALE. FROM 10 AM TO 4 PM FOR A WEEK IN SEPTEMBER. CONTACT THEM AT 215.862.2924, OR ON THE WEB AT [HTTP://WWW.BHWP.ORG/SEED_CATALOG/PLANTSALE.HTM](http://www.bhwp.org/SEED_CATALOG/PLANTSALE.HTM) FOR MORE INFORMATION.

SATURDAY, 8 SEPTEMBER 2007—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.

TUESDAY, 18 SEPTEMBER 2007—DNPS BI-MONTHLY MEETING. MEETING LOCATION TO BE ANNOUNCED LATER.

WEDNESDAY, 26 SEPTEMBER & WEDNESDAY, 24 OCTOBER 2007—DELAWARE CENTER FOR HORTICULTURE. TAKING CARE OF YOUR GARDEN SOIL: A TWO-PART SERIES. LEARN ABOUT PROPER SOIL CARE, MAINTENANCE, AND SOIL TESTING IN OUR FIRST WORKSHOP. TAKE HOME A UDEL SOIL TESTING KIT AND BRING THE UDEL LAB RESULTS TO THE SECOND WORKSHOP TO REVIEW THEM AND WORK OUT A MAINTENANCE PLAN. THE WORKSHOP IS LED BY DCH EDUCATION MANAGER SARAH DEACLE AND OTHER DCH STAFF. WORKSHOP SERIES FEE INCLUDES SOIL TEST. CONTACT THE CENTER AT 302.658.6262, OR ON THE WEB AT [HTTP://WWW.DELHORT.ORG](http://WWW.DELHORT.ORG) FOR MORE INFORMATION.

26-30 SEPTEMBER 2007—MARYLAND NATIVE PLANT SOCIETY 2007 ANNUAL FALL CONFERENCE. ON THE WEB AT [HTTP://WWW.MDFLORA.ORG/EVENTS/FALL2007/FALL2007CONFERENCE.HTML](http://WWW.MDFLORA.ORG/EVENTS/FALL2007/FALL2007CONFERENCE.HTML) FOR MORE INFORMATION AND TO DOWNLOAD THE CONFERENCE PROGRAM.

DNPS BI-MONTHLY MEETINGS FOR 2007—ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT 7 PM. LOCATIONS WILL BE ANNOUNCED PRIOR TO EACH MEETING.

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 \$ _____

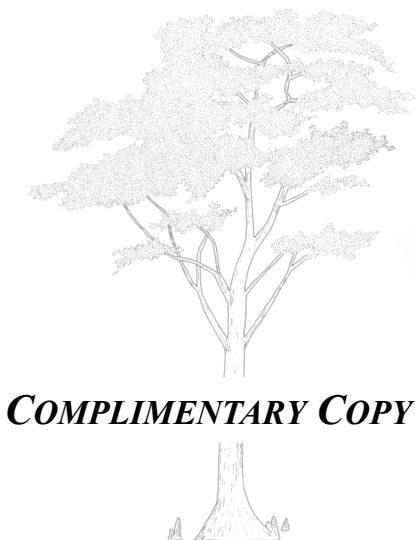
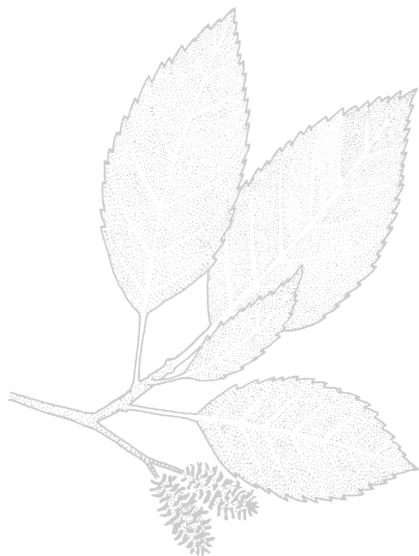
Membership benefits include:

- * 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: \$

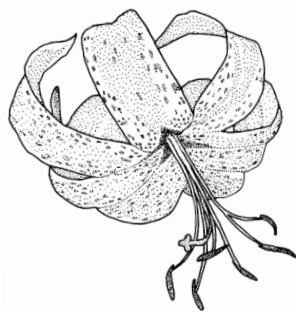
**Make check payable to:
DE Native Plant Society
P.O. Box 369, Dover, DE 19903**

**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 2007

IN THIS ISSUE

- Page 1** ■ *Natural Quotes*
 ■ *New Members*
 ■ *DNPS Vision*
- Page 2** ■ *Thoughts From The Edge...*
 ■ *Natives and Transplants*
 ■ *Resources and Reviews*
- Page 3** ■ *Feature Article*
 ■ *Resources and Reviews*
- Page 4** ■ *Gardening With Native Plants*
 ■ *Resources and Reviews*
- Page 5** ■ *Feature Article continued*
 ■ *Resources and Reviews*
- Page 6** ■ *Plant Sale Announcement*
 ■ *Out Of The Wild & Into The Kitchen*
- Page 7** ■ *Upcoming Events*

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 RUSTLING, BLOWING, LEAFY WELCOME TO OUR NEWEST MEMBERS

July through September

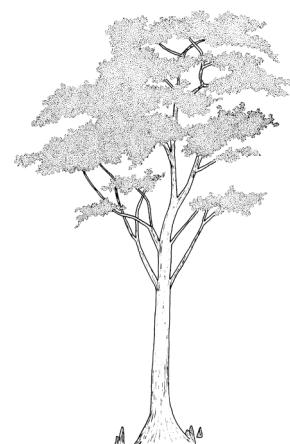
Nancy Sakaduski
 Nancy Rafert
 Phyllis Towers
 Cheryl Rehrig

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**A WINDFALL FOR THE SOCIETY**

We have a HUGE announcement for everyone! As the result of a lawsuit settlement with the Texaco Corp., the DNPS was the recipient of \$25,000.00 of the settlement money! Eric Zuelke and Bill McAvoy knew about this quite a while ago, but we weren't allowed to let the cat out of the bag until everything was finalized. This is a huge windfall for us and will make meeting the goals of the Society's Mission Statement that much easier. We greatly appreciate the efforts of the DE Audubon Society and Nick DiPasquale of the Kent County Conservancy for including the DNPS into the settlement. Please see the enclosed press release for details. Now that we don't have to worry about the cost, a new website is in the works. Stay tuned for more details on that.

MEETINGS IN ALL 3 COUNTIES

From now on we will have 2 in Sussex, 2 in Kent, and 2 in New Castle counties. The location in Kent will stay the same at the St. Jones Reserve. The location in New Castle will be at the office of the New Castle County Conservation District at 2430 Old County Rd., Newark, DE, 19702. In Sussex, it will be the Redden State Forest Education Center.

2008 DNPS CALENDAR

Our calendar is finally done! Member David G. Smith has been working on this and has gone with an online company who does "on demand" printing. The 13-month calendar has two forms of availability. The first will be a small number of them on hand at events. The second is through www.lulu.com. Once on that website do a keyword search for "DNPS" and you will find the calendar which is priced at \$15.00 + shipping.

NATIVES AND TRANSPLANTS

This new column highlights Society members (both DE natives and DE transplants from other states) in an interview questionnaire style. We proudly kick off this new column with an interview with Beverly Barnett who has been a long-time Society member.

Q. How did you become aware of the DE Native Plant Society?

A. The bumper sticker philosophy 'Think Globally, Act Locally' made me an activist protecting Ardens' forests. Through this I met DNPS leaders such as Keith Clancy, Bill McAvoy, Janet Ebert, Jack Holt, Rick Mickowski, and Flavia Rutkosky. (Please forgive me if I left anyone out.) They knew what they were doing, and I wanted to support their efforts.

Q. Do you garden with Delaware "natives?" AND, Do you have a favorite Delaware native?

A. For planting my own garden, usually a mid-Atlantic plant meets my definition of 'native plant.' Two favorite perennials, which have seeded in, are *Spigelia marilandica* and *Heuchera villosa* 'Purpurea'. When I planted my roof garden, thereby putting the 'meadow' back in Meadow Lane, I selected plants native to the piedmont of northern Delaware. My personal measure of gardening success is whether every year a new bird nests in or migrates through my yard.

Q. Where would you recommend DNPS members visit?

A. I'm an amateur gardener who began gardening after age 50. A dozen Longwood classes boosted my start, as did lectures and workshops at the Delaware Center for Horticulture and Delaware Nature Society. Visits to Tyler and Scott Arboretums were inspiring, and great places to see mature specimens of native plants.

Q. What other interests/hobbies do you pursue?

A. Other than gardening, I enjoy grandparenting, quilting and learning to ride a horse. My first horse trek was in Outer Mongolia celebrating the 800th anniversary of founding by Ghengis Khan, and my 60th birthday. When I ride in the Brandywine Valley, I imagine botanizing as John Bartram did.

Q. How can the DNPS get its message to a larger public?

A. To boost DNPS membership, I suggest gift memberships to your friends. The newsletter will hook them for life, especially the plant community articles.

**Resources & Reviews**

The Gardener's Guide to Planting and Growing Trees: Choosing, planting, and caring for trees, conifers, and palms for every season and situation.

Authored by Mike Buffi. A comprehensive guide to planting trees successfully in any size of garden, whether as single decorative specimens, in small groups and woodland plantings, in beds and borders, in containers or under glass.

Resources & Reviews

Successful Tree Planting and Care: A guide for practitioners and consumers

Authored by George S. Stroempl. Shallow planting is the most hostile effect on the survival of transplanted trees. Deeper plantings and avoiding twelve common errors in conventional plantings are explained and illustrated in this guide.

FEATURE ARTICLE

TREE PLANTING

(Editor's note: This is an excerpt from a Natural Resources Conservation Service Backyard Conservation Tip Sheet).

Trees in your backyard can be home to many different types of wildlife. Trees can also reduce your heating and cooling costs, help clean the air, add beauty and color, provide shelter from the wind and the sun, and add value to your home.

Choosing a Tree

Choosing a tree should be a well thought-out decision. Tree planting can be a significant investment in money and time. Proper selection can provide you with years of enjoyment as well as significantly increase the value of your property. An inappropriate tree for your property can be a constant maintenance problem or even a hazard. Before you buy, take advantage of the abundant references on gardening at local libraries, universities, arboretums, parks where trees are identified, native plant and gardening clubs, and nurseries. Some questions to consider in selecting a tree include:

1. What purpose will this tree serve? Trees can serve numerous landscape functions including beautification, screening of sights and sounds, shade and energy conservation, and wildlife habitat.
2. Is the species appropriate for your area? Reliable nurseries will not sell plant material that is not suitable for your area. However, some mass marketers have trees and shrubs that are not winter hardy in the area sold. Even if a tree is hardy, it may not flower consistently from year to year at the limits of its useful range due to late spring freezes. If you are buying a tree for the spring flowers and fall fruits, this may be a consideration. In warmer climates, there may not be a long enough period of cool temperatures for some species, such as apples, to develop flowers. Apples and other species undergo vernalization -- a period of near-freezing temperatures that cause changes in the plant, resulting in the production of flowers.
3. How big will it get? When planting a small tree, it is often difficult to imagine that in 20 years it could be shading your entire yard.
4. What is the average life expectancy of the tree? Some trees can live for hundreds of years. Others are considered "short-lived" and may live for only 20 or 30 years. Many short-lived trees tend to be smaller ornamental species. Short-lived species should not necessarily be ruled out when considering plantings. They may have other desirable characteristics, such as size, shape, tolerance of shade, or fruit, that would be useful in the landscape. These species

may also fill a void in a young landscape, and can be removed as other larger, longer-lived species mature.

5. Does it have any particular ornamental value such as leaf color or flowers and fruits? Some species provide beautiful displays of color for short periods in the spring or fall. Other species may have foliage that is reddish or variegated and can add color in your landscaping year round.
6. Does it have any particular insect, disease, or other problem that may reduce its usefulness? Certain insects and diseases can be serious problems on some desirable species in some regions. Depending on the pest, control of the problem may be difficult and the pest may significantly reduce the attractiveness, if not the life expectancy, of the plant.
7. How common is this species in your neighborhood or town? Some species are over-planted. Increasing the natural diversity will provide habitat for wildlife and help limit the opportunity for a single pest to destroy all plantings.
8. Is the tree evergreen or deciduous? Evergreen trees will provide cover and shade year round. They may also be more effective as a barrier for wind and noise. Deciduous trees will give you summer shade but allow the winter sun to shine in. This may be a consideration for where to place the tree in your yard.

Placement of Trees

Proper placement of trees is critical for your enjoyment and their long-term survival. Check with local authorities about regulations pertaining to placement of trees. Some communities have ordinances restricting placement of trees within a specified distance of a street, sidewalk, streetlight, or other utilities.

Before planting your tree, consider the tree's ultimate size. When the tree nears maturity, will it be too near your house or other structures? Be considerate of your neighbors. An evergreen tree planted on your north side may block the winter sun from your next door neighbor. Will it provide too much shade for your vegetable and flower gardens? Most vegetables and many flowers require considerable amounts of sun. If you intend to grow these plants, consider how the placement of trees will affect these gardens. Will it obstruct driveways or sidewalks? Will it cause problems for buried or overhead utilities?

Planting a Tree

A properly planted and maintained tree will grow faster and live longer than one that is incorrectly planted. Trees can be planted almost any time of the year as long as the ground is not frozen. Late summer or early fall is the optimum time to plant trees in many areas. This gives the tree a chance to establish new roots

Continued on page 5

GARDENING WITH NATIVE PLANTS

CARDINAL FLOWER (*LOBELIA CARDINALIS*)

NATURAL HISTORY

In mid-summer the brilliant scarlet color of the Cardinal Flower flashes from the marshes, stream banks and low woods across the Eastern United States from Southern Canada to Texas. Often called "America's favorite" and "spectacular", its extremely showy blossoms can be recognized at considerable distance. Few native plants have flowers of such intense color as this common herbaceous perennial. The blossoms are delicate, gradually opening from bottom to top in groups of 2 to 8 brilliant crimson flowers. Though a mature *Lobelia cardinalis* may ultimately support over a hundred flowers, the sequential blossoming habit of this spectacular native plant will prolong blooming time from summer into early fall. A moderately tall plant, (2 to 4 Feet) stout and erect, it is a favorite of our ruby-throated hummingbird, numerous butterflies and some bees who oblige as pollinators. The sexual tube of the cardinal flower is at first male, displaying pollen-bearing stamens at the tube tip. Pollinators collect the pollen by brushing their foreheads against the tube tip as they forage for nectar. As the stamens decline, the Y-shaped pistils extend from the tube, becoming the female and ready to receive pollen from flowers still in the pollen stage.

WHERE TO GROW

Though primarily a wetland plant, *Lobelia cardinalis* is adaptable to a wide range of soil and light conditions. Cardinal flowers can be grown in full sun or shade but probably grow best in filtered light. They can be grown in the water garden under partially submerged conditions in heavy soils along stream and pond banks that are occasionally flooded, or can be grown in a well drained perennial garden if sufficient moisture can be provided and mulch is used to keep the roots moist.

PROPAGATION AND CARE

Lobelia cardinalis will re-seed itself readily. The near microscopic seeds can be collected in the late fall once the seed capsules have thoroughly dried. Seeds may be saved over the winter in an envelope stored in a dry location. In the early spring seeds may be direct seeded into the flowerbed. Do not allow the soil to dry until the plants are well established. Seeds may also be sprinkled onto a rich potting media in a pot or flat (do not cover), and watered from the bottom until seedlings are well established. Once the plants have emerged and formed 2 sets of true leaves, transplant the seedlings into individual pots. Continue to provide ample moisture until a strong root system is established then plant the individual seedlings into the flowerbed, water garden or any natural habitat where sufficient moisture is assured. Seeds planted in the summer form rosettes of

foliage in the fall. Be careful to keep leaves and debris from smothering these rosettes.

LORE

Historically, *Lobelia cardinalis* has been used as a medicine and emetic (to induce vomiting). Native Americans used root and leaf teas of the Cardinal Flower for stomachache, fever, headache and colds, to expel worms, soothe the nerves, and cure syphilis and typhoid fever! It contains fourteen alkaloids similar to those in nicotine. Extracts of the leaves and fruit produce vomiting, sweating and pain and some people may have an allergic reaction to the plants sap on the skin. There is no current medicinal use for this plant today. Definitely a plant to enjoy for it's great beauty!



■ Bob Edelen, DNPS Member



Lobelia cardinalis. Photo by David G. Smith

Resources & Reviews

Plant a Tree: Choosing, Planting, and Maintaining This Precious Resource

Authored by Michael Weiner. Provides complete how-to steps and diagrams on growing and maintaining trees as well as excellent advice on selecting the best trees by location--cities vs. rural areas, each region of the US and much of Canada.

Resources & Reviews

The Ecology of Woodland Creation

Authored by Richard Ferris-Kaan. Although much has been written about techniques for successful tree establishment, little attention has been paid to the many ecological factors which influence the development of new woodland. *The Ecology of Woodland Creation* is a comprehensive book which tackles important ecological issues including the ethics of woodland creation, the types of woodland, species considerations, the influence of new woodlands on the diversity and distribution of plant and animal species, and how ecological principles can be integrated with the planning process.

FEATURE ARTICLE

Continued from page 3

before winter arrives and the ground freezes. When spring arrives, the tree is ready to grow. The second choice for planting is late winter or early spring. Planting in hot summer weather should be avoided. Planting in frozen soil during the winter is difficult and tough on tree roots. When the tree is dormant and the ground is frozen, there is no opportunity for the growth of new roots.

Trees are purchased as container grown, balled and burlapped (B&B), and bare root. Generally, container grown are the easiest to plant and successfully establish in any season, including summer. With container grown stock, the plant has been growing in a container for a period of time. When planting container grown plants, little damage is done to the roots as the plant is transferred to the soil. Container grown trees range in size from very small plants in gallon pots up to large trees in huge pots. B&B plants frequently have been dug from a nursery, wrapped in burlap, and kept in the nursery for an additional period of time, giving the roots opportunity to regenerate. B&B plants can be quite large. Bare root trees are usually extremely small plants. Because there is no soil on the roots, they must be planted when they are dormant to avoid drying out. The roots must be kept moist until planted. Frequently, bare root trees are offered by seed and nursery mail order catalogs or in the wholesale trade. Many state operated nurseries and local conservation districts also sell bare root stock in bulk quantities for only a few cents per plant. Bare root plants usually are offered in the early spring and should be planted as soon as possible upon arrival.

Carefully follow the planting instructions that come with your tree. If specific instructions are not available, follow these tips:

1. **Before digging**, call your local utilities to identify the location of any underground utilities. Dig a hole twice as wide as, and slightly shallower than, the root ball. Roughen the sides and bottom of the hole with a pick or shovel so that roots can penetrate the soil.
2. With a potted tree, gently remove the tree from the container. Lay the tree on its side with the container end near the planting hole. Hit the bottom and sides of the container until the root ball is loosened. If roots are growing in a circular pattern around the root ball, slice through the roots on a couple of sides of the root ball. With trees wrapped in burlap, remove the string or wire that holds the burlap to the root crown. It is unnecessary to completely remove

the burlap. Plastic wraps must be completely removed. Gently separate circling roots on the root ball. Shorten exceptionally long roots, and guide the shortened roots downward and outward. Root tips die quickly when exposed to light and air, so don't waste time.

3. Place the root ball in the hole. Leave the top of the root ball (where the roots end and the trunk begins) 1/2 to 1 inch above the surrounding soil, making sure not to cover it unless roots are exposed. For bare root plants, make a mound of soil in the middle of the hole and spread plant roots out evenly over mound. Do not set trees too deep. As you add soil to fill in around the tree, lightly tamp the soil to collapse air pockets, or add water to help settle the soil. Form a temporary water basin around the base of the tree to encourage water penetration, and water thoroughly after planting. A tree with a dry root ball cannot absorb water; if the root ball is extremely dry, allow water to trickle into the soil by placing the hose at the trunk of the tree.
4. Mulch around the tree. A 3-foot diameter circle of mulch is common.
5. Depending on the size of the tree and the site conditions, staking may be beneficial. Staking supports the tree until the roots are well established to properly anchor it. Staking should allow for some movement of the tree. After trees are established, remove all support wires. If these are not removed they can girdle the tree, cutting into the trunk and eventually killing the tree.

Maintenance

For the first year or two, especially after a week or so of especially hot or dry weather, watch your trees closely for signs of moisture stress. If you see leaf wilting or hard, caked soil, water the trees well and slowly enough to allow the water to soak in. This will encourage deep root growth.

Fertilization is usually not needed for newly planted trees. Depending on soil and growing conditions, fertilizer may be beneficial at a later time.

Young trees need protection against rodents, frost cracks, sunscald, lawn mowers and weed whackers. Mice and rabbits girdle small trees by chewing away the bark at snow level.

Pruning

Under no circumstance should trees be topped. Not only does this practice ruin the natural shape of the tree, but it increases susceptibility to diseases and results in very narrow crotch angles, the angle between the trunk and the side branch.

7th Annual Native Plant Sale

When: Saturday, 3 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.

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

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

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

OUT OF THE WILD & INTO THE KITCHEN

In this and forthcoming issues The Turk's Cap will publish tested recipes featuring beloved and not so beloved wild plants. The recipe for "Garlic Mustard Pesto" comes from Julianne Schieffer who is the Extension Urban Forester for the Southeast Region of Pennsylvania. After decades of eating wild collected plants and "living to tell about it," she has cultivated different eating habits. Her urban forestry and botany background, along with her plant pathology expertise compliment her wizardry in the kitchen.

Garlic Mustard Pesto (*Alliaria petiolata*)

Yield: 2 - 2½ cups

1 cup garlic mustard leaves (washed and dried)
4 cloves garlic, peeled
¾ cup fresh parsley (washed and dried)

1 cup fresh basil (washed and dried)
2 cups walnuts
1 cup pine nuts

½ cup olive oil
1 ½ cups seedless black olives
1 cup parmesan cheese, grated

Place all ingredients, except grated cheese in a blender and process until smooth – or to your desired consistency. Fold in some of the cheese. Taste and amend as your taste buds direct you. Allow flavors to mellow and serve with pasta, or use as a dressing for salads or steamed or grilled vegetables. This pesto can be used a flavoring for other dishes that need to be kicked up a notch also.

Garlic mustard is a perennial broadleaf plant that is native to Europe. It was first recorded in the U.S. around 1886 from Long Island, New York, probably having been brought by settlers for food and medicinal purposes. It now poses a threat to native plants and animals in forest communities in much of the eastern and midwestern U.S. Audubon Magazine published an article "Eat the Invaders!" in November 2004, which contains several recipes using non-native invasive plants including garlic mustard. The article can be accessed at <http://magazine.audubon.org/features0410/gourmet.html>. If you have a recipe you would like to share, please contact Flavia Rutkosky at 302.653.9152, ext. 111.



U P C O M I N G

E V E N T S

SATURDAY, 20 OCTOBER 2007—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, 27 OCTOBER 2007—THE 3RD ANNUAL SYMPOSIUM AT BOMBAY HOOK NATIONAL WILDLIFE REFUGE IS SCHEDULED FROM 10 AM TO 2 PM. THE SYMPOSIUM WILL FOCUS ON NATIVE MEMBERS OF THE RHODODENDRON FAMILY, MANY OF WHICH ARE SPECTACULAR SUBJECTS FOR THE HOME LANDSCAPE. WE ARE FORTUNATE THAT BILL MCAVOY WILL PRESENT A PROGRAM ON NATIVE DELAWARE SPECIES IN THEIR NATIVE HABITATS. A LOT CAN BE LEARNED ABOUT THEIR CULTURE AND ADAPTABILITY TO CULTIVATION FROM WHERE THEY GROW IN NATURE. THE SECOND SPEAKER IS RICK LEWANDOWSKI, THE DIRECTOR OF MT. CUBA CENTER WHO HAS AN EXTENSIVE BACKGROUND WITH MEMBERS OF THIS FAMILY FROM HIS DAYS AS CURATOR OF THE COLLECTIONS AT THE MORRIS ARBORETUM OF THE UNIVERSITY OF PENNSYLVANIA AND THE INCREDIBLE GARDENS AT MT. CUBA CENTER IN GREENVILLE. PLEASE NOTE THAT RESERVATIONS ARE LIMITED AND ARE AVAILABLE ON A FIRST COME, FIRST SERVED, SPACE AVAILABLE BASIS. THE SYMPOSIUM IS FREE AND WILL BE OPEN TO THE PUBLIC BUT REGISTRATION IS REQUIRED. TO REGISTER, CONTACT QUENTIN SCHLIEDER BY PHONE AT 302.653.6449 OR BY E-MAIL AT QCSJR@COMCAST.NET

SATURDAY, 3 NOVEMBER 2007—DELAWARE NATIVE PLANT SOCIETY NATIVE PLANT SALE FROM 10 AM TO 3 PM AT OUR NURSERY AT THE ST. JONES RESERVE. ON THE WEB AT [HTTP://WWW.DELAWARENATIVEPLANTS.ORG](http://WWW.DELAWARENATIVEPLANTS.ORG) FOR MORE INFORMATION.

SATURDAY, 10 NOVEMBER 2007 – FALL FAMILY FESTIVAL AT ADKINS ARBORETUM. ACTIVITIES INCLUDE HAYRIDES, WALKS THROUGH THE ARBORETUM WOODS, MUSIC, AND AN ARRAY OF LUNCHTIME TREATS. 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).

DNPS BI-MONTHLY MEETINGS FOR 2008—ARE CURRENTLY SCHEDULED FOR 15 JANUARY, 8 MARCH, 20 MAY, 15 JULY, 16 SEPTEMBER, 1 NOVEMBER (NOT A MEETING, BUT THE ANNUAL PLANT SALE) AND 18 NOVEMBER. ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT 7 PM, UNLESS OTHERWISE NOTED. THE MEETING WILL BE HELD IN 3 LOCATIONS AROUND THE STATE. THE KENT COUNTY LOCATION IS AT THE ST. JONES RESERVE, THE NEW CASTLE COUNTY LOCATION IS AT THE NEW CASTLE COUNTY CONSERVATION DISTRICT OFFICE AT 2430 OLD COUNTY RD., NEWARK, DE, 19702, AND THE SUSSEX COUNTY LOCATION IS AT THE REDDEN STATE FOREST EDUCATION CENTER AT 18074 REDDEN FOREST DR., GEORGETOWN, DE, 19947.

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 \$ _____

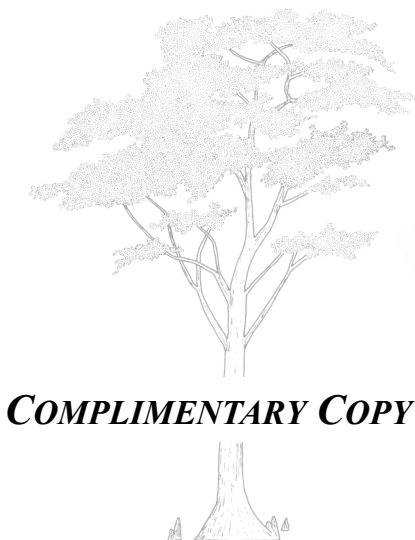
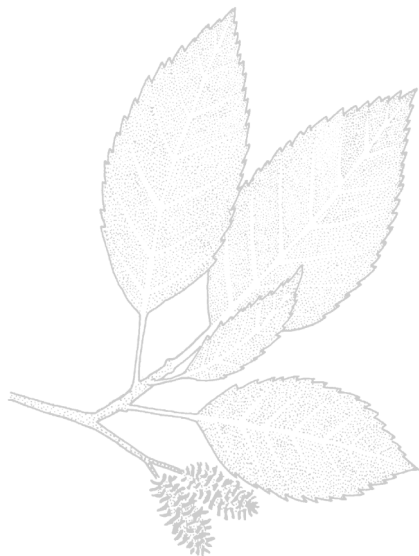
Membership benefits include:

- * 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: \$ _____

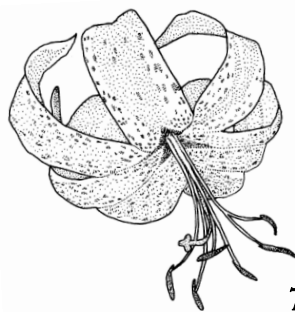
**Make check payable to:
DE Native Plant Society
P.O. Box 369, Dover, DE 19903**

**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 2007/08

IN THIS ISSUE

- Page 1** ■ *Natural Quotes*
 ■ *New Members*
 ■ *DNPS Vision*
- Page 2** ■ *Thoughts From The Edge...*
 ■ *Natives and Transplants*
 ■ *Resources and Reviews*
- Page 3** ■ *Feature Article*
 ■ *Resources and Reviews*
- Page 4** ■ *Gardening With Native Plants*
 ■ *Resources and Reviews*
- Page 5** ■ *Feature Article continued*
 ■ *Resources and Reviews*
 ■ *Natives and Transplants continued*
 ■ *Gardening With Native Plants cont.*
- Page 6** ■ *Event Highlight*
 ■ *Out Of The Wild & Into The Kitchen*
- Page 7** ■ *Upcoming Events*

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.

NATURAL QUOTES

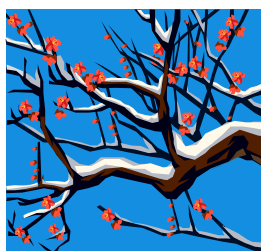
"Study nature, love nature, stay close to nature. It will never fail you."

Frank Lloyd Wright

A WHITE SPARKLY WINTER WELCOME TO OUR NEWEST MEMBERS

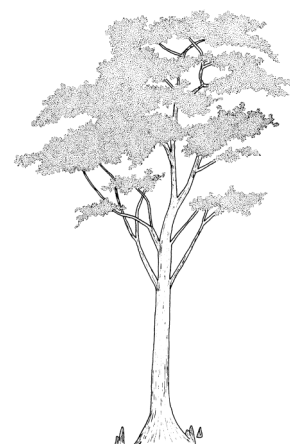
October through December

Suzanne Baron
 Robert Deming
 Patricia Deptula
 Kathryn W. Downs
 Lynda Dunham
 Jeanne & Dominick Giovanelli
 Charles & Gilda Jennings
 Richard Kacynski & Linda Sperry



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.



THOUGHTS FROM THE EDGE OF THE GARDEN**DNPS EMAIL POLICY AND UPDATES**

The Society routinely sends out email announcements to our members and some non-members to keep everyone informed on the latest happenings and upcoming events. The Society's email list is never given out to anyone for commercial purposes. Members are allowed to use the email list to send out announcements, but must gain approval from either Eric Zuelke or Bill McAvoy before hand to avoid over using the list and creating spam. We also try to keep our list current, so if you know you have changed your email address recently, please tell us so you don't miss anything.

2008 DNPS CALENDAR

We still have some left! The 13-month calendar from member David G. Smith has two forms of availability. The first will be a small number of them on hand at events. The second is through www.lulu.com. Once on that website do a keyword search for "DNPS" and you will find the calendar which is priced at \$15.00 + shipping.

WEBSITE UPDATE

As we announced in our last newsletter, some of the Texaco settlement money is going to be used for a new website. Eric met with Delaware.net in late November and of all the potential organizations that we could have signed with, we chose them because of the high quality work they have done, their impressive list of local clients, and very professional staff. On Dec 11th we signed our contract and paid our down payment for the new site. Production has begun and Eric has been busy submitting content. One aspect of the scope of work is the design of a new logo for the Society. We sort of have a logo now, but it is not in a form that can be used in any application, so the new one will be very versatile.

**NATIVES AND TRANSPLANTS**

This new column highlights Society members (both DE natives and DE transplants from other states) in an interview questionnaire style. We kicked off this new column in the Autumn 2007 issue. In this issue we are highlighting Robert Coxe who is the DNPS Vice-President.

My interest in native plants stems from work as an ecologist with the Delaware Natural Heritage Program and my studies in college in Plant Taxonomy. I have a Masters of Science degree in Biology with an emphasis in Plant Taxonomy and have completed work towards a Ph.D also. I would describe my expertise in native plants as fairly good due to the fact that I work with plants and map vegetation communities for my profession. I feel a native plant is any plant that came naturally to a watershed or watersheds adjacent to it. I became aware of the Delaware Native Plant Society through work.

At home I try to garden with Delaware natives as much as I can. Some of the plants originally came from places other than Delaware such as Pennsylvania or Maryland, but the species are native to Delaware. I have gotten a lot of the plants from Red Bud Native Plant Nursery in Pennsylvania and various other nurseries. I tend to favor the New England Aster. I have not propagated plants for the garden, and I am not sure that I have any green thumb secrets as I do not garden all that much.

When I am away from Delaware I do botanize as much as I can. There are a lot of places in the North Carolina and West Virginia Mountains that are very interesting botanically. Parts of the Canadian Shield and Niagara escarpment are fascinating as well. I would recommend the Royal Botanical Gardens in Hamilton, Ontario or the Bloomquist Garden that is part of the Dukes Gardens in Durham, NC.

In terms of my concerns regarding conservation of local flora, I think that from an ecological standpoint, the local genotypes of the species and the populations of the plants have to remain viable. From an educational standpoint, having a good website should help with

Continued on page 5

Resources & Reviews***Plant Ecology (Second Edition)***

Authored by Mike Crawley. Includes important topics such as plant secondary chemistry, photosynthesis, herbivory, sex, and breeding systems, the structure and dynamics of plant populations and communities. Additional chapters address topical applied issues in plant ecology including global warming, pollution, and biodiversity.

Resources & Reviews

Plant Ecology, An International Journal

Editor-in-Chief: Arnold G.v.d. Valk. *Plant Ecology* (formerly, *Vegetatio*) publishes original scientific papers on the ecology of vascular plants and bryophytes in terrestrial, aquatic and wetland ecosystems. The scope of the journal extends to papers reporting on descriptive, historical, and experimental studies of any aspect of plant population, physiological, community, ecosystem and landscape ecology as well as on theoretical ecology.

FEATURE ARTICLE

A LITTLE SCIENCE ABOUT PHOTOSYNTHESIS

Photosynthesis is the process by which all green plants, some bacteria, and some protists use the energy from sunlight to produce sugar, which cellular respiration converts into ATP, the "fuel" used by all living things. The organisms that accomplish this are also known as photoautotrophs (gather energy directly from light to create their own energy). The conversion of unusable sunlight energy into usable chemical energy, is associated with the actions of the green pigment chlorophyll.

A pigment is any substance that absorbs light. The color of the pigment comes from the wavelengths of light reflected (in other words, those not absorbed). Chlorophyll, the green pigment common to all photosynthetic cells, absorbs all wavelengths of visible light except green, which it reflects to be detected by our eyes. The critical, and primary, photosynthetic pigment is termed chlorophyll *a*. It is so important because it evolved to not utilize high energy wavelengths. Visible light has an energy level that is perfect for chlorophyll *a* to use as it activates electrons to a state useful in the chemical reactions of photosynthesis. If these same electrons are over or under activated they either destroy all the energy already produced by the plant, or they return to a resting ground state. Other pigments, called accessory pigments, have evolved over time and play an important role. The primary accessory pigments are chlorophyll *b* and carotenoids. These molecules absorb other light wavelengths and work to change those wavelengths energies to levels that chlorophyll *a* can use, then they pass that energy onto the chlorophyll *a*.

Chlorophyll molecules are specifically arranged in and around pigment protein complexes called photosystems which are embedded in the thylakoid membranes of chloroplasts. Chloroplasts are organelles found in plant cells and eukaryotic algae that conduct photosynthesis. Chloroplasts absorb light and use it in conjunction with water and carbon

dioxide to produce sugars, the raw material for energy and biomass production in all green plants. Most of the time, the photosynthetic process uses water and releases the oxygen.

The overall basic chemical reaction of photosynthesis is: $6\text{H}_2\text{O} + 6\text{CO}_2 \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$, or six molecules of water plus six molecules of carbon dioxide produce one molecule of sugar plus six molecules of oxygen.

Photosynthesis is a two stage process. The first process is the Light Dependent Process (Light Reactions), requires the direct energy of light to make energy carrier molecules that are used in the second process. The Light Independent Process (or Dark Reactions) occurs when the products of the Light Reaction are used to form C-C covalent bonds of carbohydrates. The Dark Reactions can usually occur in the dark, if the energy carriers from the light process are present. The Light Reactions occur in the grana and the Dark Reactions take place in the stroma of the chloroplasts. The thylakoid is the structural unit of photosynthesis and are stacked like pancakes in inside the chloroplast in stacks known collectively as grana. The areas between grana are referred to as stroma (which is the fluid matrix surrounding the grana). Both photosynthetic prokaryotes and eukaryotes have these flattened sacs/vesicles containing photosynthetic chemicals. Only eukaryotes have chloroplasts with a surrounding membrane.

In the Light Dependent Processes (Light Reactions) light strikes chlorophyll *a* in such a way as to excite electrons to a higher energy state. In a series of reactions the energy is converted (along an electron transport process/ photophosphorylation) into ATP and NADPH. Water is split in the process, releasing oxygen as a by-product of the reaction. The ATP and NADPH are used to make C-C bonds in the Light Independent Process (Dark Reactions).

In the Light Independent Process, carbon dioxide from the atmosphere (or water for aquatic/ marine organisms) is captured and modified by the

Continued on page 5

GARDENING WITH NATIVE PLANTS

WAX MYRTLE (*MYRICA CERIFERA*)

NATURAL HISTORY

Wax myrtle, *Myrica*, Arbre à suif, Myricae Cortex, Tallow Shrub, Wachsgagle, Bayberry, American Bayberry, American Vegetable Tallow Tree, Wax Tree, Myrtle, Candleberry, Candleberry Myrtle, Tallow Shrub, American Vegetable Wax, Vegetable Tallow and Waxberry are but a few of the common names applied to *Myrica cerifera* or for the purposes of this article – wax myrtle! Perhaps the numerous common names of *Myrica cerifera* are a testimony to its notoriety throughout its native range along the coastal plain from New Jersey to Texas. After all, there are few native plants that have been so useful to Native Americans and early settlers, or for that matter should hold a place of prominence in your landscape as wax myrtle! Wax myrtle solidified its place in early American history for its fragrant candles, soaps and dyes, and for its medicinal purposes, but more recently, it is highly cultivated for its value in landscapes not only across America, but also around the world. What's not to love about a plant with fragrant leaves, lush foliage, near perfect form, fruit attractive to wildlife, and is adaptable and easily cared for? But, I'm getting ahead of myself, for it's mid-winter and in nearly every coastal plain ecosystem from tidal and non-tidal fresh and brackish marshes, to swamps and sandy dune swales to upland hardwood forests, wax myrtle is helping wildlife survive. Wax myrtle will hold its leaves until temperatures dip down into the single digits providing dense cover and protection from winter's winds and now that insects and more desirable fruits and berries are depleted, wax myrtle provides a lipid rich, high energy fruit that is readily eaten by bluebirds, catbirds, woodpeckers, brown thrashers, chickadees, warblers and 16 other species of birds. In fact, the wax myrtle lends its name to the Myrtle Warbler for it is especially attractive to warblers and other birds that eagerly devour its rich fruit during early spring migrations. In the spring, the dense foliage of wax myrtle makes it the perfect spot for numerous birds to build a well-protected nest. It is also a larval host plant for the red-banded hairstreak butterfly. Look for flowers to appear in March and April, but look closely for the flowers are very small. The males are yellow-green catkins that grow up to 1 inch long while the females are small and inconspicuous little bumps that grow into small blue berries, 1/8 in diameter. Flowers are born on separate male and female plants and are wind pollinated so they do not provide significant benefit to bees or other pollinators. The berries ripen in October and are held closely to the stem.

WHERE TO GROW

The wax myrtle is perhaps the perfect shrub or small tree for most any landscape, regardless of your abilities as a gardener.

This is a vigorous and easy to grow plant that succeeds under a wide range of conditions. It is very forgiving - deer resistant, heat and drought tolerant, and because it fixes nitrogen, it is able to thrive in infertile soils. It will grow in medium loamy to heavy clay soils and can even grow in light sandy soils given adequate water. Because it is moderately salt tolerant, it is also suitable for seaside plantings and is ideal for stream or lakeside plantings where periodic flooding may be a problem for other plants. It prefers acid to neutral pH and can be grown in full sun to full shade, but prefers semi-shade in light woodlands or along edges. It has dense, attractive semi-evergreen foliage, is a fast grower and responds well to pruning. This popular plant has an attractive rounded form and is commonly used in landscaping as both a small tree or kept pruned as a shrub. Wax myrtle is uncommonly beautiful sending up multiple trunks that typically grow from 10 to 20 ft. tall and can ultimately reach heights approaching 40 ft. Plant wax myrtle to create a screen or hedge to provide food and shelter for local birds and other wildlife. It can be pruned to encourage dense foliage and its suckering nature is ideal for mass plantings and creation of thickets for wildlife. Left untrimmed wax myrtle has an open natural form that promotes greater fruit development and still has the attractive irregular shapes of multiple trunks. Plant at least one male plant along with several females to promote the production of the beautiful waxy berries that birds love!

PROPAGATION AND CARE

Wax myrtle is nearly as easy to propagate, as it is to grow. It can be propagated from seeds, cuttings, or root divisions. When growing from seed it is important to remove the waxy coating prior to planting, otherwise the wax will inhibit absorption of water and prevent germination. Collect seeds soon after they ripen (in early to mid autumn) and rub vigorously between the hands or preferably over a screen to remove as much of the wax as possible. A three-month cold stratification will greatly improve germination so seed should be stored in a refrigerator or preferably planted immediately in a cold frame. Pick out the seedlings when they are large enough to handle, plant into individual pots and grow them on in a cold frame for the first winter. Cutting of half ripe wood with a heel, collected in mid-August, treated with a rooting hormone, planted in a peat/perlite mixture (1 to 1) and set in a shade house under a mist is also effective. As above, overwinter the young plants the first year in a cold frame. Perhaps the easiest way to start your wax myrtle plantings is by division. Because wax myrtle readily produces offshoots from the original plant, chunks of root mass can be dug from a colony and will quickly send up new stems when replanted. As always when taking rooted divisions, seek out a responsible landowner or friend who has an abundance of wax myrtle to share – never take divisions from public lands!

Continued on page 5

Resources & Reviews

Terrestrial Plant Ecology (Third Edition)

Authored by Michael G. Barbour et al. Covers the entire breadth of modern plant ecology, blending classic topics with the results of new research, using as little jargon as possible.

Resources & Reviews

Physiological Plant Ecology (Fourth Edition)

Authored by Walter Larcher. Reviews include these comments: A keystone textbook for any student, teacher and researcher in the field of plant ecology. The book is one of the most useful introductions into the field and will be of interest for students as a very exhaustive overview. It continues to be one of the major texts in the field of ecophysiology.

GARDENING WITH NATIVE PLANTS

Continued from page 4

LORE

Initially, wax myrtle was used medicinally in the South, where the Choctaw Indians boiled the leaves and drank the decoction as a treatment for fever. Later, Louisiana settlers drank the berry wax in hot water for the most violent cases of dysentery. Early American colonists found wax myrtle growing throughout the east and quickly adopted the plant for a variety of uses. The aromatic compound present in wax myrtle foliage seems to repel insects, particularly fleas. It was traditionally planted around southern homes to help keep living spaces pest-free, and many coastal residents place wax myrtle boughs under their beds to repel fleas and other insects. Crushed leaves were rubbed on the skin to serve as a pleasantly fragrant mosquito repellent, and leaves placed in a flour bin are said to repel meal moths. But perhaps the most well known use of wax myrtle is the production of aromatic candles. Early settlers soon found that a wax covering on the fruit could be extracted by immersing the fruit in boiling water for a few minutes. The wax floats to the surface and is then skimmed off. The wax is then strained through a muslin cloth to be used to make candles, sealing wax, soaps, dyes, etc. The wax is harder and more brittle than beeswax and candles made from it are aromatic, smokeless after snuffing and less greasy in warm weather than candles made from beeswax or tallow. Four pounds of berries yields about one pound of wax.



■ *Bob Edelen, DNPS Member*

NATIVES AND TRANSPLANTS

Continued from page 2

getting the message out. In addition, having public wildflower walks may get the public more involved.

In my spare time outside of work and nature, I write historical fiction books with my mom on US Revolutionary War topics. I am avid reader of history books and books in general and used to be into bike riding and sailing before some health problems arose. I also enjoy traveling to various places around the East Coast of the United States and Canada. I also enjoy jazz and classical music. I most often listen to jazz since I seem to be able to get the jazz stations on the radio better than classical.



FEATURE ARTICLE

Continued from page 3

addition of hydrogen to form carbohydrates (the general formula of carbohydrates is $[\text{CH}_2\text{O}]_n$). The incorporation of carbon dioxide into organic compounds is known as carbon fixation. The energy for this comes from the first phase of the photosynthetic process. Living systems cannot directly utilize light energy, but can, through a complicated series of reactions, convert it into C-C bond energy that can be released by glycolysis and other metabolic processes. This Dark Reaction process is known as the Calvin-Benson cycle, or the C_3 cycle.

Plants use up to 90% of the light that strikes them, and the process of photosynthesis is arguably the most important biochemical pathway, since nearly all life depends on it.

A side note on fall color: In addition to cold temperatures destroying chlorophyll. The shortening days and cool nights of autumn trigger the growth of a corky membrane between the branch and the leaf stem. This membrane interferes with the flow of nutrients into the leaf. Because the nutrient flow is interrupted, the production of chlorophyll in the leaf declines, the leaf begins to senesce, and the green color of the leaf fades. This fading occurs because chloroplasts transition into structures called gerontoplasts. This differentiation is characterized by the extensive loss of stroma proteins and thylakoid membranes, and the gerontoplasts then act to disassemble thylakoidal pigment-protein complexes and breakdown chlorophyll. Chlorophyll degradation then allows the pigments carotene, and anthocyanins to dominate. Carotene absorbs all colors but yellows, and the anthocyanins absorb all colors but reds. Once these remaining pigments are metabolized, the leaves turn brown.

Content of this article was obtained from <http://www.emc.maricopa.edu/faculty/farabee/BIOBK/BioBookPS.html>, <http://www.jbc.org/cgi/content/full/271/44/27233>, <http://arjournals.annualreviews.org/doi/abs/10.1146/annurev.arplant.57.032905.105212>, Wikipedia, and the textbook, *Botany* by James D. Mauseth, 1991.



EVENT HIGHLIGHT**7TH ANNUAL NATIVE PLANT SALE**

Our plant sale this year went over quite well, but like last year We experienced a very very cold, windy sale day, but that didn't deter people as we had the exact same number of customers as we did last year. We did \$1475.00 in pure plant sales, which yielded a "profit" for us of over \$700.00 (we bulked up our inventory with purchased plants this year a little more than in past years). 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	2005	2006	2007
Species available	77	69	70
Plants available	2000	1046	1000
Plants sold	976	564	393
Customers	125	72	72
Booklets sold	24	4	11
Checklists sold	0	2	0
Calendars	na	na	6

**OUT OF THE WILD & INTO THE KITCHEN**

In this and forthcoming issues The Turk's Cap will publish tested recipes featuring beloved and not so beloved wild plants. The recipe for "Garlic Mustard Pesto" comes from Julianne Schieffer who is the Extension Urban Forester for the Southeast Region of Pennsylvania. After decades of eating wild collected plants and "living to tell about it," she has cultivated different eating habits. Her urban forestry and botany background, along with her plant pathology expertise compliment her wizardry in the kitchen.

Garlic Mustard Pesto (*Alliaria petiolata*)

Yield: 2 - 2½ cups

1 cup garlic mustard leaves (washed and dried)
4 cloves garlic, peeled
¾ cup fresh parsley (washed and dried)

1 cup fresh basil (washed and dried)
2 cups walnuts
1 cup pine nuts

½ cup olive oil
1 ½ cups seedless black olives
1 cup parmesan cheese, grated

Place all ingredients, except grated cheese in a blender and process until smooth – or to your desired consistency. Fold in some of the cheese. Taste and amend as your taste buds direct you. Allow flavors to mellow and serve with pasta, or use as a dressing for salads or steamed or grilled vegetables. This pesto can be used a flavoring for other dishes that need to be kicked up a notch also.

Garlic mustard is a perennial broadleaf plant that is native to Europe. It was first recorded in the U.S. around 1886 from Long Island, New York, probably having been brought by settlers for food and medicinal purposes. It now poses a threat to native plants and animals in forest communities in much of the eastern and midwestern U.S. Audubon Magazine published an article "Eat the Invaders!" in November 2004, which contains several recipes using non-native invasive plants including garlic mustard. The article can be accessed at <http://magazine.audubon.org/features0410/gourmet.html>. If you have a recipe you would like to share, please contact Flavia Rutkosky at 302.653.9152, ext. 111. 🍄

U P C O M I N G

E V E N T S

SUNDAY, 20 JANUARY 2008—MORRIS ARBORETUM LUKENS LECTURE - "BREEDING GREAT SMALL TREES FOR TODAY'S LANDSCAPES" FROM 2 PM TO 4:30 PM. THIS LECTURE FEATURES DR. RICHARD OLSEN, A RESEARCH GENETICIST FROM THE U.S. NATIONAL ARBORETUM IN WASHINGTON, DC. DR. OLSEN'S RESEARCH FOCUSES ON BREEDING, GENETICS, AND THE SELECTION OF SUPERIOR LANDSCAPE TREES, PARTICULARLY SMALLER TREES FOR PLANTING IN RESTRICTED URBAN ENVIRONMENTS. CALL 215.247.5777 EXT. 155 FOR MORE INFORMATION, OR ON THE WEB AT [HTTP://WWW.BUSINESS-SERVICES.UPENN.EDU/ARBORETUM/EVENTSCALENDAR2008.HTML](http://www.business-services.upenn.edu/arboretum/eventscalendar2008.html)

SUNDAY, 27 JANUARY 2008—MORRIS ARBORETUM TUB'SHEVAT CELEBRATION LECTURE - "A TREE PILGRIMAGE IN ISRAEL" FROM 2 PM TO 4:30 PM. THIS LECTURE BY MICHAEL BROWN IS IN HONOR OF TUB'SHEVAT, THE JEWISH CELEBRATION OF TREE PLANTING. CALL 215.247.5777 EXT. 155 FOR MORE INFORMATION, OR ON THE WEB AT [HTTP://WWW.BUSINESS-SERVICES.UPENN.EDU/ARBORETUM/EVENTSCALENDAR2008.HTML](http://www.business-services.upenn.edu/arboretum/eventscalendar2008.html).

THURSDAY, 21 FEBRUARY 2008—BOWMAN'S HILL WILDFLOWER PRESERVE'S 8TH ANNUAL LAND ETHICS SYMPOSIUM. IN LANGHORNE, PA. CREATIVE APPROACHES FOR ECOLOGICAL LANDSCAPING IS THIS YEARS FOCUS. THEY WILL HAVE SIX SPEAKERS AND A BOOK SALE. FOR MORE INFORMATION CALL 215.862.1846, OR ON THE WEB AT [HTTP://WWW.BHWP.ORG/EDUCATIONAL/SYMPOSIA.HTM](http://www.bhwp.org/educational/symposia.htm).

17-19 APRIL 2008—THE MT. CUBA CENTER TRILLIUM SYMPOSIUM. THE PURPOSE OF THIS TWO-DAY CONFERENCE (AND OPTIONAL THIRD-DAY FIELD TRIP) IS TO BRING TOGETHER ACADEMIC AND INDUSTRY PROFESSIONALS, AS WELL AS EXPERT GARDENERS, TO ADDRESS THE SCIENCE, CONSERVATION, AND HORTICULTURE OF TRILLIUMS OF EASTERN NORTH AMERICA. ONLINE, OR MAIL/FAX EGIISTRATION IS REQUIRED AT [HTTP://TRILLIUMSYMPOSIUM2008.ORG/REGISTRATION.HTML](http://trilliumsymposium2008.org/registration.html), OR AT [HTTP://WWW.MTCUBACENTER.ORG](http://www.mtcubacenter.org).

SPRING 2008—THE U.S. NATIONAL ARBORETUM, SYMPOSIUM ON PREVENTION STRATEGIES FOR INVASIVE SPECIES. AS INVASIVE SPECIES CONTINUE TO DISRUPT OUR NATIVE ECOSYSTEM, LAND MANAGERS MUST CREATE AND IMPLEMENT SOUND PREVENTION STRATEGIES AS A FIRST LINE OF DEFENSE. THIS SYMPOSIUM WILL OUTLINE CURRENT AND POTENTIAL TACTICS TO PREVENT INVASIVE SPECIES. DRAWING FROM RESEARCH AND PRACTICAL IN-THE-FIELD EXPERIENCE, SPEAKERS WILL DETAIL EFFECTIVE PRACTICES THAT PRIVATE CITIZENS AND INSTITUTIONAL LAND MANAGERS CAN USE. ALL DAY EVENT [RESCHEDULED FROM JANUARY 15TH; NEW DATE TO BE ANNOUNCED SOON]. ON THE WEB AT [HTTP://WWW.USNA.USDA.GOV/EDUCATION/EVENTS.HTML](http://www.usna.usda.gov/education/events.html).

DNPS BI-MONTHLY MEETINGS FOR 2008—ARE CURRENTLY SCHEDULED FOR 15 JANUARY, 8 MARCH, 20 MAY, 15 JULY, 16 SEPTEMBER, 1 NOVEMBER (NOT A MEETING, BUT THE ANNUAL PLANT SALE) AND 18 NOVEMBER. ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT 7 PM, UNLESS OTHERWISE NOTED. THE MEETING WILL BE HELD IN 3 LOCATIONS AROUND THE STATE. THE KENT COUNTY LOCATION IS AT THE ST. JONES RESERVE, THE NEW CASTLE COUNTY LOCATION IS AT THE NEW CASTLE COUNTY CONSERVATION DISTRICT OFFICE AT 2430 OLD COUNTY RD., NEWARK, DE, 19702, AND THE SUSSEX COUNTY LOCATION IS AT THE REDDEN STATE FOREST EDUCATION CENTER AT 18074 REDDEN FOREST DR., GEORGETOWN, DE, 19947.

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 \$ _____

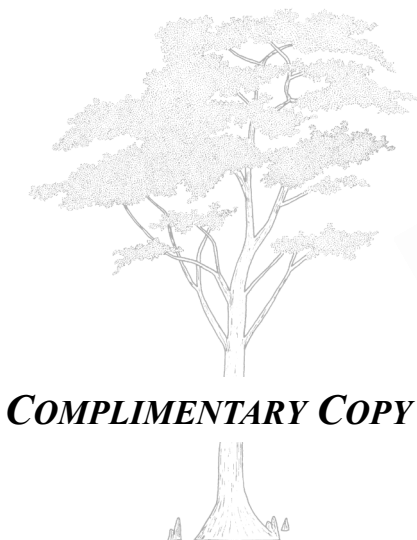
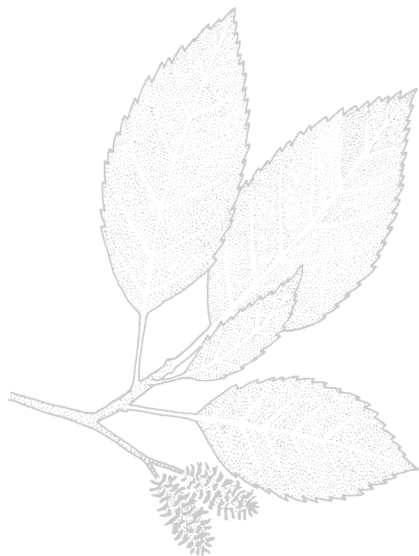
Membership benefits include:

- * 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

