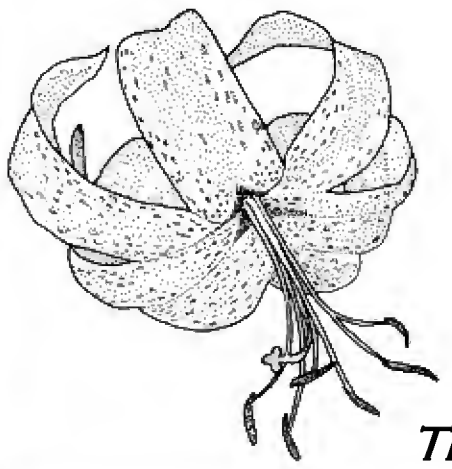
Volume 9, Num-



THE TURK'S

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

IN THIS ISSUE

NATURAL QUOTES

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

Edvard Munch

A SNAPPING CRACKLING FIREPLACE WELCOME TO OUR NEWEST MEMBERS

October through December

Pat McElwee
Wandaliz Mercado
Linda Peters
Bruce Pringle

HOW CAN I GET INVOLVED?

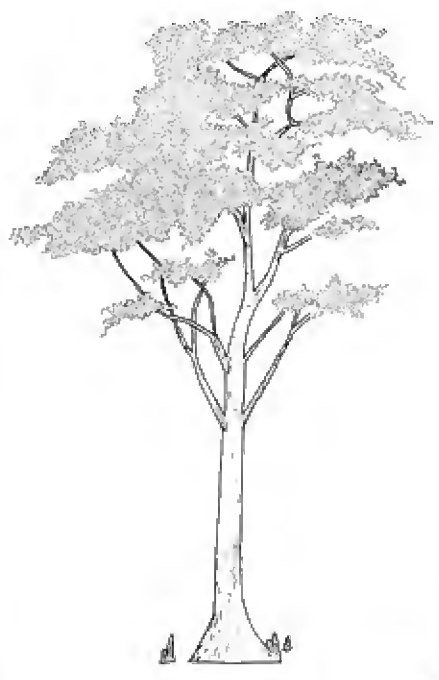
The Delaware Native Plant Society is open to everyone ranging from the novice gardener to the professional botanist. One of the primary goals of the society is to involve as many individuals as possible.

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

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

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

PLANT RESCUE EFFORTS

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

NURSERY UPDATE

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

EVENT HIGHLIGHT

6TH ANNUAL NATIVE PLANT SALE

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

Here's the stats!

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

Photo By: Bob Edelen

Resources & Reviews

Woody Plants In Winter

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

Resources & Reviews

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

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

FEATURE ARTICLE

HISTORY OF THE DNPS REFORESTATION PROJECTS

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

Part 2

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

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

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

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

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

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

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

Nut collecting took place between **2 October through 12 October 2003** at various sites in the Blackbird State Forest and direct seeding was done at the reforestation site. The nuts were planted in a randomized fashion with 4 nuts to a flag. Most of the nuts collected and planted were of various oak species (primarily white, and southern red) with a small percentage of hickories, tulip poplars, other hardwoods, and some shrubs. A total of 1,984 nuts at 496 flags were planted.

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

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

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

Cedar Creek Natural Area Site, Sussex County

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

Continued on page 5

GARDENING WITH NATIVE PLANTS

WINTERBERRY HOLLY (ILEX VERTICILLATA)

NATURAL HISTORY

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

WHERE TO GROW

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

PROPAGATION AND CARE

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

LORE

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

Bob Edelen, DNPS Member

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

Resources & Reviews

Wildflowers and Winter Weeds

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

Resources & Reviews

Winter Botany

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

FEATURE ARTICLE

Continued from page 3

mature forest on the other two sides.

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

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

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

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

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

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

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

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

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

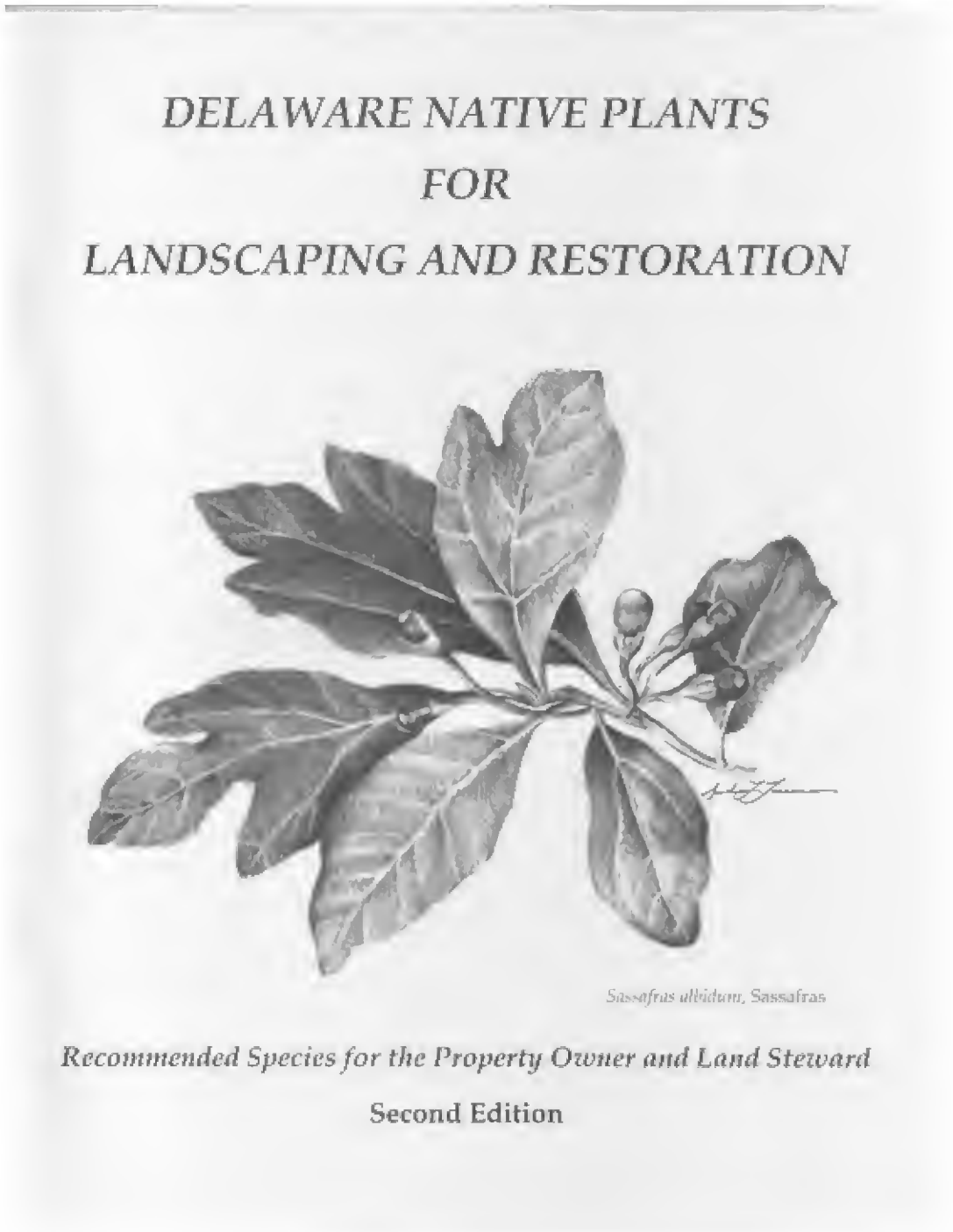
Between **4 July 2004-21 August 2004** volunteers installed 471 tree tubes around seedlings.

Approximately 200-300 tree tubes were still in place on **30 April 2005**, most contained healthy plants. Again, it is not clear what happened to the other half of the tree tubes that were installed in 2004.

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

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

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



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

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

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

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

Resources & Reviews

Winter Tree Finder (Nature Study Guides)

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

Upcoming Events

Tuesday, 19 January 2007—DNPS bi-montly meeting. We originally had a winter plant identification workshop scheduled for the program for this meeting, but circumstances have forced us to change our plans and we will have a presentation on submerged aquatic vegetation instead.

6 & 7 February 2007—The Morris Arboretum of the University of Pennsylvania will be holding their 17th annual symposium: Nature's unseen influences and the art of garden design. This two-day symposium will be held on two different sets of dates at two different locations in February. The locations are in PA and CT. For more information on the PA location event call 215.247.5777, or on the web at http://www.business-services.upenn.edu/arboretum/symposia2.html

Saturday, 10 February 2007—DNPS seed propagation workshop: A reprise of our popular 2005 workshop. We are currently working on the finishing touches for this workshop. Please call 302.653.6449 for more details and to register.

Saturday, 10 February 2007—Keys to plant identification program by the Maryland Native Plant Society. This program is designed for those with little or no experience and will focus on identifying trees using their twigs and bark and has a $3 registration fee. Email kmolines@chesapeake.net for more information, or on the web at http://www.mdflora.org/events/trips.html#keypid

Thursday, 15 February 2007—Bowman's Hill Wildflower Preserve 7th annual land ethics Symposium: Creative approaches for ecological landscaping. This day-long symposium will be held in Langhorne PA, and will focus on ways that environmental professionals can create economical and ecologically balanced landscapes using native plants and restoration techniques. Keynote speaker is Dr. Roger Latham. Call 215.862.2924 for more information, or on the web at http://www.bhwp.org/news_media/2006_symposium_7th.htm

DNPS Bi-monthly meetings for 2007—are currently scheduled for 16 JaNUARY, 19 March, May (annual meeting-more details to come), 17 July, 18 September, 3 November (not a meeting, but the annual plant sale) and 20 November. All meetings are on the third Tuesday of every other month at the St. Jones Reserve at 7 PM, unless otherwise noted.

Membership Application

Delaware native Plant Society

Member Information

Name:

_____

Business Name or Organization:

_____

Address:

_____

City and Zip Code:

_____

Telephone (home/work):

_____

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