

# The Turk's Cap

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY SPRING 2002

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## 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 begun a reforestation project at Prime Hook State Wildlife Area and will be undertaking a direct seeding reforestation project along Blackbird and Cedar Creeks in the fall of 2003. In addition, help is needed with our recently established native plant nursery at the St. Jones Reserve outside Dover. We encourage everyone to participate in these, and other DNPS endeavors.

For more information on how to get involved, E-mail us at [dnps@delawarenativeplants.org](mailto:dnps@delawarenativeplants.org). Or visit the new DNPS website at [www.delawarenativeplants.org](http://www.delawarenativeplants.org). Our new website has 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

## A CALL FOR ARTICLES

If you would like to write an article for *The Turk's Cap*, we would love to print it. With like minded individuals as an audience, *The Turk's Cap* is a great venue for plant or habitat oriented writings.

We'll take just about anything from gardening tips to book reviews to poetry. Of course, it has to be about native plants, or issues related to native plants; just a minor constraint. Your imagination is the real key.

Contact Eric Zuelke for more information at ([ezuelke@juno.com](mailto:ezuelke@juno.com)), or Keith Clancy at 302.674.5187.

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## A FRAGRANT WILDFLOWER WELCOME TO OUR NEWEST MEMBERS

### January through March

- Christine Besche
- Janet & Mike Friedberg
- Jeff & Bridget Lynch
- James Metzger
- Joann Price
- Barbara Reader
- Ellen Roca
- Glenn Shealy
- Linda Shinn
- Mark Young

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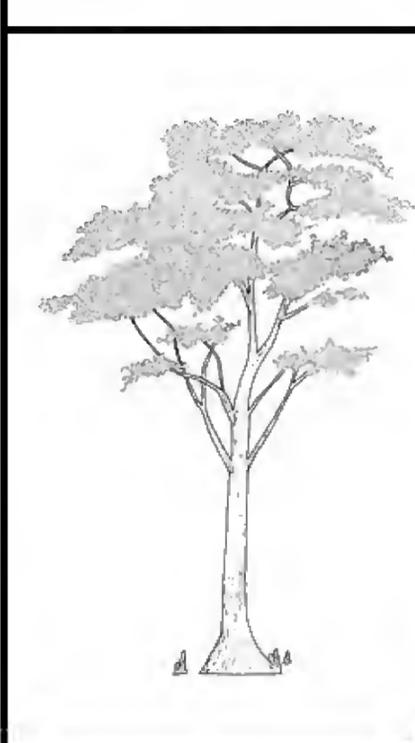
## LETTER FROM THE PRESIDENT

It's that time of year to start planning and implementing your native landscaping projects. As the weather warms many of us will be outside planting native plants we germinated from seeds, or purchased from a native plant nursery or from one of the native plant sales that take place around the state and region at this time of year. If you want to restrict your plantings to Delaware natives, use caution when making your selections. A fair number of the advertised "native" plants offered for sale are, in fact, not native to Delaware. The definition of native, by some, can be quite liberal. Some of the plants offered for sale that I have seen, although native somewhere in eastern North America, are not native to Delaware. In several cases, I have noted species, advertised as native to

*Continued on page 5*

## 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.



**LETTER FROM THE EDITOR****BREAK OUT THEM SHOVELS**

Well, this was the lamest Winter I've experienced in Delaware yet! I've been here for five years now and never seen a Winter as mild as this one. By my unofficial count, Dover only got 1 inch of snow. That's amazing. But all is made up for with the wonderful sights, sounds and smells of Spring. I'm definitely going to put my shovel through its paces in the next few weeks. We had a great DNPS event at one of our members houses back in March. Bob Edelen and his wife graciously opened up there property to us and let us dig up anything we wanted that was in the way of a trail he was making. Bob also gave us a tour of his greenhouse and they fed us pizza. What a day! Our feature article has given me some great tips for my plantings I got from that day, and it might help you as well if you're in the market for some trees. Have a great Spring. 🌱

oooo Eric Zuelke, Editor

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**PLANT-ANIMAL HIGHLIGHT****THE YUCCA AND THE MOTH**

There is an ecological concept that exists between certain plants and animals that is called mutualism. Mutualism is an evolutionary relationship between two organisms in which they evolve together over time (coevolution) and neither one is harmed and each benefit from the other.

One of the most famous examples of this relationship is between the yucca plant (*Yucca glauca*) and the Yucca Moth (*Tegeticula yuccasella*). This unique bond between plant and insect was discovered in 1876 by a Missouri entomologist named C. V. Riley. The events of this unusual coupling unfold every May and early June across the Midwest and Great Plains regions of the United States.

The yucca plant-yucca moth system is a textbook case of coevolution. The yucca plant has no ability to reproduce seeds without the moth. Yuccas can propagate small rosettes of 20-60 white flowers per vertical raceme around the parent plant, but these vegetative sprouts are genetically identical to the parent. Over decades, the plant can only move a few feet, and there is no possibility for genetic variation. Without the moth, the whole flowering effort (expensive to the plant in terms of energy) is a total waste. The only pollinator of the plant is the yucca moth as bees are not attracted, and neither wind nor bees can pick up the sticky pollen. The yucca moth is likewise dependent upon the plant. There are no alternate host plants known for the yucca moth; the yucca moth caterpillars must eat yucca seeds or starve, and without the plant will die off in a single generation. Without the moth, the plant cannot reproduce, become genetically varied, or disperse, and both species would go extinct simultaneously with an event like major climate change. Therefore, the system is tightly coevolved.

The adult moth resides inside the yucca flowers, and the active larval stages are all contained inside the developing yucca fruits. Males and females mate inside a flower after which the male plays no part in the pollination process. The female moths pollinate the flowers between dusk and midnight. The moth gathers pollen from the flower anthers by using her specially adapted mouthparts, called palps. She forms the sticky pollen into a ball which she carries between her tentacles and

her thorax (under her "chin" so to speak). The pollen ball is then "stuffed" or "combed" into the stigma of the various flowers she visits. When the female moth visits a flower, she backs up to the flower base and inserts her ovipositor to lay an egg in one or more of the six locules (the compartments of the ovary). By the time the egg hatches into a microscopic caterpillar, the yucca will have begun to develop a pod with little seeds. The small gray-to-pinkish yucca moth caterpillars may feed anywhere in the core of the seed rows. If they burrow toward the end and run out of food, they bore sideways into another locule or across a carpal wall. When the larvae are mature, they excavate an exit burrow to the surface of the pod, although they may continue feeding for a time. When they completely chew through the surface, they leave an exit hole or scar.

There are a couple of variables that have helped this \coevolution along. One is that because the yucca flowers male stamens bend away from the female stigma, and reach only two-thirds the length of the pistil, the plant is favoring pollination by the moth and preventing self-fertilization. Also, the moths have a strong tendency to go only to white flowers.

Researchers have questioned how the moth knows what flowers they have visited and why they don't lay enough eggs to decimate the populations of the plants over time. They theorize that the moths leave a pheromone scent behind to reveal what flowers they have visited, and that in many cases the plants force the moths to lay few eggs scattered over many flowers which would always result (as the researchers have found) in a great number of viable seeds being produced that escape getting eaten.

This fascinating connection between a plant and an insect is but one of the many examples of how interconnected our natural world is, and how we, as a species who can control the fate of many of these relationships, should behold this as something to cherish. 🌱

oooo Eric Zuelke, Editor

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**FEATURE ARTICLE****HOW TO BUY AND PLANT TREES**

The list of benefits that trees provide is really amazing when you think about it. Trees reduce pollution, control erosion, provide wildlife habitat, act as wind-breaks and provide shade to conserve energy in your home, and enhance human comfort, well-being and enjoyment of the outdoors. But too often the focus is on the quantity of trees to plant rather than their individual quality and proper planting. It is important to know you are planting the correct tree in the right location the right way. These are issues that will determine an individual tree's health and longevity.

**Choose a Tree Adapted to Your location**

There are numerous resources available to help in choosing trees that are suitable for your geographic location. Many books with general information about tree adaptation are available at libraries. Also, check with your cooperative extension agent, master gardener, or parks department for a list of locally suitable trees. Factors to consider include tree size as well as shape and growth rate, whether it is deciduous or evergreen, climate adaptation, soil and water requirements, and potential pest problems. Naturally, a tree's visual characteristics such as flowers, fall color, foliage texture, bark and other fea-

tures are also important.

Once you have a list of candidates, check it with what's available at local nurseries and ensure that you selecting a native species. Your list will narrow quickly, and you can use factors such as flowers, flowering time, or fall color to make the final selection. Finally, find a mature tree of the species you want growing in your neighborhood or in a natural area to see what it's going to look like twenty or thirty years from now.

If the tree you choose is not readily available, don't hesitate to place a special order for it, or to order it from a mail-order supplier. It is more important to get a healthy specimen of the right tree than to plant right away. But even more important is to get a tree that is indigenous to your area, so be sure that the supplier has grown their trees from local seed sources.

### Choose a Healthy Tree

It pays to be a smart shopper when buying trees. As hard as most nurseries and garden centers try to properly care for their trees, the longer a tree has been in the nursery, the greater the chance for something to go wrong. Missed waterings and accidental neglect can cause a tree to suffer. Such trees are likely to grow slowly or poorly once they're planted in your yard, or elsewhere.

Trees are sold three ways: bare-root, balled & burlapped (B&B), and in containers.

Examine a tree carefully before buying. The largest individuals of a group may be too large for their root-balls. The smallest trees of a group may be stunted from some type of stress. In general, select a tree of modest proportions. Look for a tree with a balanced canopy and evenly spaced branches extending out in all directions. The best growth form is when branches are distributed along the entire length of the trunk.

The trunks of some trees have been cut off at the top to prevent the tree from growing to high while in the nursery. This causes several branches to grow from just below the cut. Trees like this may appear attractive and in good proportion, but for large-growing trees, the branches may be too low and weakly attached unless most need to be pruned out.

Foliage growth along the lower trunk contributes to its strength. The trunk should be straight and evenly tapered from top to bottom. Ideally, the tree should be able to stand up by itself without staking. If not, it will require staking for a longer time after planting.

Avoid trees with broken branches, wounds on the trunk, poorly colored foliage, obvious signs of insects or disease, or poor growth from the previous season.

If you can't plant as soon as you get your trees home, make sure you take care of them until you can. Temporarily place all types of young trees in a shady location. Partially bury the roots of bare-root trees by digging a shallow hole, placing the roots in the hole, and covering them with moist soil or organic matter like leaves or mulch. Make sure that the root-balls of B&B and container trees don't dry out by keeping them watered regularly until you can plant them.

### Check Drainage

If you suspect drainage problems, dig a test hole near the tree's site a few days or weeks before planting. Fill the hole with water, let it drain, then fill it again. Time how quickly the water drains. If it is less than 1-inch per hour, or if it hasn't drained completely in 24 hours, you have a drainage problem. Solutions include planting elsewhere, planting in raised beds or mounds, or installing a drainage system. You may be able to improve the drainage by drilling through the hard soil or clay in

### NATURAL QUOTES

'And April weeps - but, O ye hours!  
Follow with May's fairest flowers.'  
Percy Bysshe Shelley

'Art is the unceasing effort to compete with the beauty  
of flowers - and never succeeding.'  
Marc Chagall

the bottom of the hole. Ask your county cooperative extension office or nursery to find out about local soil conditions and probable depth and thickness of the hard soil.

### Planting Procedures

For Bare-root Trees:

Set bare-root trees atop a small mound of soil in the center of the planting hole, and spread the roots down and away without bending them too much. Identify original planting depth by finding color change from dark to light as you move down the trunk towards the roots. Make sure to tamp out all air pockets as you fill in the soil to ensure that the roots don't dry out in the ground.

For Balled & Burlapped Trees:

Handle the root-ball carefully so it doesn't break or crack. Lift the soil ball and position it centered in the hole. Gently tamp to remove air pockets as you fill. Once stabilized with backfill, remove the burlap. Continue backfilling and watering to settle the soil. Don't cover the top of the root-ball with backfill because it could prevent water from penetrating.

For Container Trees:

Lift the plant out of container prior to setting the root-ball in the hole. Eliminate circling roots by laying the root-ball on its side and cutting through the roots with shears. Don't cover the top of the root-ball with backfill because it could prevent water from penetrating.

### Water After Planting

Create a watering basin at least 4 to 6 inches high just outside the root-ball. Fill it with water, let it drain, and repeat. Recheck the planting depth. If the tree has settled below the surrounding soil level, it should be raised. For bare-root trees, gently pull up on the lower trunk. For container or balled & burlapped trees, carefully push a shovel under the root-ball and pry it upward while lifting up on the lower trunk. In each case, moist soil will settle under the roots and raise the planting depth.

### Stake and Mulch

A tree with a strong trunk will stand on its own without staking. However, if the tree was staked in the nursery or if you are planting in a windy location, staking will support the tree during its first years in the ground. Drive in two or three stakes, one on each side of the tree and just outside the root-ball. Position the stakes so that a line drawn between them is perpendicular to the strongest prevailing wind when the tree is in leaf, and put the third stake in parallel to the prevailing wind. Tie the tree to the stakes with wide flexible ties. Determine how high to attach the ties by running your hand up the trunk from the base. The minimum height at which the top of the tree remains upright is where to secure the ties. Use wide ties to

reduce damage to the trunk, or put the tying material through lengths of rubber garden hose against the trunk, and don't tie the tree too tight. A tree that can sway somewhat in the wind will develop a stronger trunk.

Apply 3 to 4 inches of organic mulch around the base of the tree to conserve moisture and reduce weeds. Keep it at least 6 inches away from the trunk.

#### After Planting

##### Watering:

Bare-root trees do not need to be watered again until two to four weeks after growth resumes. Container and B&B trees need regular watering until their roots grow into surrounding soil. During hot weather, these trees may need to be watered every two to three days to keep the root-ball moist. Occasionally wetting the soil outside the basin will ensure that roots develop into the surrounding soil. Remove support stakes soon after the tree can stand on its own.

#### Pruning

Most new trees need no pruning the first season other than to remove broken branches. Pruning may reduce the total growth of a young tree, but if large, vigorously growing branches are too low or competing with more desirably placed branches, you can safely cut them back. Pinch out the tips of vigorous growth in order to stimulate side branching. If the leader is growing vigorously and no laterals are forming at a height you would like, pinch out an inch of the tip growth when it is at the height where you would like a permanent branch. Several shoots will grow from below the pinch. When the new shoots are 3 to 4 inches long, select the most vigorous for the leader and pinch back the other shoots. If growth is vigorous, this can be repeated a couple of more times.

#### Fertilizer

If young trees are growing slow, or have poorly colored foliage may result, and they may benefit from adding a nitrogen fertilizer. 🌿

oooo Eric Zuelke, Editor

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## NATURAL COMMUNITY HIGHLIGHT

### INTERDUNAL SWALES

#### Introduction

Scattered in amongst the dunes of the Atlantic Coast, interdunal swales are tiny wetlands, frequently only a few square meters in size. However, despite their small size, interdunal swales have great conservation significance. Part of this significance comes from the fact that, although they are often little more than a few hundred meters from the ocean, their water comes entirely from precipitation, making them freshwater wetlands. These freshwater conditions, in conjunction with the extremely nutrient-poor sandy soils, creates an unusual habitat that is home to unique communities of plants. In addition to these plant communities, there is an insect, the Bethany Beach firefly (*Photuris bethaniensis*), that is known only from Delaware's interdunal swales, and nowhere else in the world. It is another reminder that the conservation of natural communities helps to protect the full range of native species. Although there are several communities described for the interdunal swales of Delaware, two of the more frequent types are listed below.

*Juncus scirpoides* – *Schoenoplectus pungens* Herbaceous Vegetation

### Round-head Rush – Common Threesquare Interdunal Swale

#### Description

This herbaceous swale community is typically dominated by the sedge *Schoenoplectus pungens* (common threesquare), with *Juncus scirpoides* (Round-head rush) often occurring as a co-dominant. Other associates include such typical swale species as the graminoids *Juncus canadensis* (Canada rush), *Juncus dichotomus* (forked rush), *Panicum amarum* (panic beachgrass), *Panicum verrucosum* (warted panic grass), *Panicum rigidulum* (redtop panic grass), *Spartina patens* (salt-meadow cordgrass), and *Dichanthelium spretum* (Eaton's witch grass), as well as *Triadenum virginicum* (marsh St. John's wort), *Drosera intermedia* (spoon-leaved sundew), *Utricularia juncea* (southern bladderwort), *Vaccinium macrocarpon* (large cranberry), and *Sphagnum* spp. (peat mosses).

#### Distribution

This is the most common interdunal swale community in Delaware, and it can be found from Cape Henlopen south to the Maryland state line. Rangewide, similar communities probably occur from Delaware south to Virginia.

*Vaccinium macrocarpon* Dwarf-shrubland

### Large Cranberry Interdunal Swale

#### Description

This swale community is defined as a "dwarf-shrubland" because of the dominance of *Vaccinium macrocarpon* (large cranberry), which is an evergreen trailing shrub. While this species is generally dominant, a number of rushes, sedges, grasses, and forbs co-occur and often obscure the low-growing cranberry. Other woody species that occasionally occur in the swales include *Acer rubrum* (red maple), *Vaccinium corymbosum* (highbush blueberry), and *Myrica cerifera* (wax-myrtle). Associated herbaceous species include *Drosera intermedia*, *Lycopodiella appressa* (creeping clubmoss), *Utricularia juncea*, *Xyris difformis* (pink-based yellow-eyed grass), *Xyris torta* (twisted yellow-eyed grass), and a moss species *Polytrichum commune*. Less frequent species encountered often include species found in adjacent swale communities, including the previously described type: *Cladium mariscoides* (twig-rush), *Schoenoplectus pungens*, *Juncus canadensis*, *Juncus dichotomus*, *Juncus biflorus* (grassleaf rush), *Euthamia tenuifolia* (slender fragrant goldenrod), *Polygala cruciata* (crossleaf milkwort), *Pogonia ophioglossoides* (rose pogonia), *Platanthera blephariglottis* (white fringed orchid), *Panicum rigidulum*, *Panicum verrucosum*, *Rhynchospora capitellata* (brownish beak-rush), *Rhynchospora scirpoides* (long-beaked bald rush), and *Andropogon virginicus* (broom-sedge).

#### Distribution

The only occurrences of this community in Delaware are found at Cape Henlopen State Park. Cranberry swale communities can be found from Maryland to Massachusetts. 🌿

oooo Peter Bowman, DE Natural Heritage Program Ecologist

**LETTER FROM THE PRESIDENT***Continued from page 1*

Delaware, with ranges only as far north as Georgia. Additionally, many of the plants offered are horticultural 'varieties.' If this issue matters to you, then please refer to the DNPS's recent publication, *Delaware Native Plants for Landscaping and Restoration* booklet or McAvoy and Bennett's *Flora of Delaware: An annotated checklist* to help in your plant selections. Both of these resources list species that are known to be native to the state, with the latter being a comprehensive checklist. If you're not sure about that 'native' rhododendron you've got your eye on, then check it out in one of these books.

Why does it matter if one uses natives or not, you may ask? There are many good reasons to restrict your plantings to native plants derived, if possible, from indigenous stocks (either from locally collected seeds or cuttings). Indigenous plants are uniquely adapted to local environmental and ecological conditions. These plants are often best suited to local soil conditions, temperature regimes, and microhabitats. In addition, the natives may be more likely to have developed defenses to withstand many types of insect predations and diseases. Native plants are also part of our state's natural heritage. Their use supports and strengthens the overall ecological functions of surrounding intact habitats by providing a continuity of native vegetation. This is important in the context of pollination biology, seed dispersal, biodiversity, habitat corridors and amelioration of impacts from disturbances in natural areas. Native plants provide a source of seeds for dispersal to adjacent natural areas and provide beneficial habitats for a myriad of wildlife species.

I also can't help but wonder what impacts, if any, the introduction of species native to eastern North America, but not to Delaware, might have on our state's overall flora and fauna. Am I over-reacting? I don't know. Has anyone seen literature that addresses this topic? I have seen both small and large populations of several of these species that have become established in natural habitats. For example, a large population of Carolina allspice, *Calycanthus floridus*, a species native further south, is well-established on sandy soils within a pine-oak community within the Nanticoke State Wildlife Area. Is it having any impacts on the local native flora and fauna?

Our native plant nursery at the St. Jones Reserve offers a great opportunity to grow a diversity of Delaware native plants propagated from locally collected seeds and, in some cases, from plants 'rescued' before the bulldozer and chainsaw find them. It is our hope that we will be able to propagate large enough quantities of these natives to fill many of the needs of land restorations throughout the state, and for annual plant sales to the public. The success of this nursery depends on you. We need your help. I encourage anyone interested in helping out at the nursery to contact me. Also, in the coming weeks I will be announcing days and times that we will be meeting at the nursery.

I would like to personally welcome all the many new members that have joined the DNPS in recent months. Our society is continuing to grow. This growth shows that there is a tremendous interest in native plants. I encourage every member, both new and old, to play a more active role in the Society. Attend a field trip or a bi-monthly meeting, and there are many Society activities where your help is needed. For example, we could be more involved in public outreach. We need someone to open dialogue with local municipalities and state agencies,

encouraging them to only plant native trees, shrubs and herbs in their landscaping projects. Maybe we could undertake a native plant landscaping project in one or more of our communities. We could give talks about the benefits and beauty of using native plants. We need someone that could become involved with the State's biodiversity initiative, as well as someone to participate in the Delaware Invasive Species Council. There is more that we could do to promote a forest conservation act and state legislation for rare plants.

Also, it would be great if we had someone to monitor and comment on development projects. If a project were to result in forest loss, we could discuss the opportunity for DNPS members to rescue many of these plants from destruction. Help is needed with our Prime Hook State Wildlife Area reforestation project this spring and our direct seeding reforestation projects this fall along Blackbird (New Castle County) and Cedar (Sussex County) Creeks. Our field trip coordinator position is vacant; this would be a great opportunity for someone to provide their own input on when or where we have our field trips.

Finally, please come to our annual meeting on Saturday, May 4, 2002 and share in the fun of celebrating native plants. 🌿

Sincerely,

Keith Clancy

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**THE DNPS WEBSITE**

At long last, our website is being completely revised and updated. Check out our newly designed website at [www.delawarenativeplants.org](http://www.delawarenativeplants.org). The site is still under construction so please check back on a regular basis. We plan on having a photo library that will allow visitors to view high quality images of Delaware's flora and native plant communities. Accompanying each image will be a brief description of the plant or community, information on the plant's distribution, planting needs, wildlife and ornamental attributes. There will be sections on Delaware's invasive and exotic species, upcoming events, publications, and an online version of our newsletter, and related links among other topics.

Please take some time to check out our site. All comments and suggestions for improvements are welcomed. Also, if you have any photos that you would like to see added to the site please contact [dnps@delawarenativeplants.org](mailto:dnps@delawarenativeplants.org) with details.

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**EVENT HIGHLIGHTS**
**COPELAND NATIVE PLANT SEMINAR**

On Saturday, 16 March 2002, the DE Museum of Natural History hosted this event. One of our members wrote the following (this is an excerpt): the speaker shared five observations from nature that should govern any native plant design project:

1. The design should be experientially rich – there should be character, complexity and coherence.
2. It should be environmentally sound.
3. There should be a sense of place – it should reflect the

*Continued on page 6*

**NATIVE PLANT HIGHLIGHT****BLOODROOT**

One of the first native woodland wildflowers to bloom each spring is bloodroot (*Sanguinaria canadensis* L.), of the Papaveraceae, or Poppy Family.

In Delaware, bloodroot blooms from March to April. Simultaneously, before leaf-buds break in the forest canopy, a leafless stem containing a single terminal flower bud, along with a deeply lobed leaf, emerge from a stout rhizome. Initially, the stem and flower bud are wrapped-up tight by the leaf, and in time the leaf gradually unfolds while the bud slowly swells into a blossom. The blossom is composed of 8-16 snowy white petals and the center appears golden due to the numerous stamens that are coated with bright yellow pollen. The petals fall quickly in just a few days, quicker if the days are windy, so the window of opportunity to view this species in flower is short.

The buds containing leaves and flowers develop a year before they appear in the spring, and sometime after flowering, the leaves begin to enlarge and will last into fall. Fruits mature in late spring and seeds have a large white growth along their edge that contains oil. This oil is attractive as food for ants and as a result, ants help to disperse seed throughout the woodlands.

Although the flowers of bloodroot lack nectar, the species is usually pollinated by bees. Bees will visit the flowers of bloodroot when the weather is warm and sunny, but during days that are cold or rainy, which frequently happens in the spring, the plant will self-pollinate.

Bloodroot is a perennial plant and the thick rhizome contains a red juice that will stain anything it comes in contact with. This juice was widely used by Native American's to decorate their skin and also their tomahawks. The rhizome of bloodroot also contains a substance called sanguinarine, which has potential for use in modern medicine. Currently, sanguinarine is used as a toothpaste additive and in other oral care products.

If multiple leaves are observed on one plant, it is an indication of a branching rhizome, and a single intact rhizome can produce up to ten leaves and flowers.

Bloodroot is a monotypic species, meaning it is the only species belonging to the genus *Sanguinaria*. The native geographic distribution of bloodroot is from Nova Scotia south to Florida and west to Nebraska. 

oooo William McAvoy, DNPS member

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**DON'T MISS THIS UPCOMING EVENT****DNPS 4<sup>TH</sup> ANNUAL MEETING**

Please mark your calendars for this date and plan on attending. Everyone welcomed.

The DNPS Annual Meeting is set for Saturday, May 4, 2002, at the St. Jones Reserve, Kent CO. DE. Lots of activities are on-tap so I hope you will be able to attend.

Potluck: Please bring a dish for lunch. Refreshments will be provided.

2002 DNPS Annual Meeting AGENDA:

9:00-12:00 - Field trip to an old growth (at least relative to Delaware's coastal plain) forest right in Dover. We will meet at the Reserve and then carpool to the site.

This is an exceptionally high quality and relatively large, mature (old growth) forest along the Mudstone (also called Maidstone) Branch that flows into the Fork Branch, a tributary of the St. Jones River. The mixed hardwood forest is an approximately 130-140 year old community that is comprised of a mixture of oaks, hickories, tulip tree, sweet gum and beech in the canopy. It also has many of the characters of an old growth forest: diverse species composition (few, if any, invasives), excellent structural diversity, coarse woody debris and scattered snags. We will also get a glimpse of a large beaver pond that occurs along this stretch of the Mudstone. This forest occurs on private property and the owner is interested in protecting the site.

12:00-1:30 -- Potluck lunch at the Reserve

During lunch we will have an Update of Society Activities and ballots for election of new officers will be distributed.

1:30-2:30 - Featured Speaker: Dr. Sue Barton of the University of Delaware will present a seminar entitled "Enhancing Delaware's Highways."

2:30-4:00 (or whenever) Anyone wishing to is encouraged to take a tour of the native plant nursery and, if you feel so inclined, help with some spring cleaning activities.

Also, anyone that has started seeds at home and have seedlings please bring these (less the ones they want to keep for their properties) to be planted in the nursery.

Several free native plants will also be raffled off.

We hope to see everyone at this event. For more information contact the DNPS at dnps@delawarenativeplants.org or 302.674.5187. Also, please RSVP if you plan to attend.

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**EVENT HIGHLIGHTS**

Continued from page 1

region where it is placed.

4. It should change over time with the natural migration of plants in the landscape.

It should not lead to a loss of biodiversity/not diminish biotic diversity.

DNPS member Bill McAvoy gave a very interesting overview of "The Historical and Extirpated Native Flora of Delaware – a Reflection on the Environmental Health of the State". Basically, plant losses can be attributed to several cause and effect relationships.

There was also a presentation about the new "Backyard Wildlife Habitat" program that is being promoted by DNS. Trained stewards assist landowners with information and projects to improve water quality, restore wildlife habitat and protect biodiversity. 

oooo Rick Mickowski, DNPS member

## UPCOMING EVENTS

**SATURDAY, 13 APRIL 2002** – ECO WALK AT BRECKNOCK PARK IN KENT COUNTY. SPONSORED BY THE DELAWARE SOLID WASTE AUTHORITY. FUN ACTIVITIES FOR KIDS AND ADULTS, EXHIBITS, THE DELAWARE ENVIRONMENT ECO-WALK AND MORE. FOR MORE INFORMATION CALL 302.698.6446 OR 6445

**SATURDAY, 20 APRIL 2002** – FROM 10 AM TO 2 PM (OR WHENEVER). A SPRING WILDFLOWER WALK ON THE PIEDMONT. WE WILL EXPLORE A MIXED HARDWOOD FOREST ALONG STEEP SLOPES OF THE RED CLAY CREEK. WE SHOULD SEE MANY OF THE SPRING EPHEMERALS THAT ARE SURE TO BE BLOOMING ON THIS DATE. THIS WALK WILL BE LED BY JANET EBERT, AN EXPERT ON THE FLORA OF THE PIEDMONT. DRESS APPROPRIATELY FOR EARLY SPRING WEATHER. WE WILL MEET IN THE PARKING LOT AT ASHLAND NATURE CENTER (HOME OF THE DELAWARE NATURE SOCIETY), OFF BARLEY MILL ROAD AT BRACKENVILLE ROAD (SOUTHEAST OF YORKLYN). FOR MORE DETAILS AND TO SIGN-UP FOR THIS TRIP PLEASE CALL MS. EBERT AT 610.459.0585 OR 302.674.5187 OR EMAIL AT [DNPS@DELAWARENATIVEPLANTS.ORG](mailto:DNPS@DELAWARENATIVEPLANTS.ORG).

**THURSDAY, 25 APRIL 2002** – PLANTS AND PLANT COMMUNITIES OF THE DELMARVA PENINSULA. FROM 7 PM TO 9 PM AT ADKINS ARBORETUM. KEITH CLANCY, BOTANIST, PHOTOGRAPHER, WRITER, AND PRESIDENT OF THE DELAWARE NATIVE PLANT SOCIETY, WILL SHARE HIS EXTENSIVE FIELD EXPERIENCE AND FANTASTIC COLLECTION OF PHOTOGRAPHS OF RARE AND COMMON PLANTS AND PLANT COMMUNITIES OF THE DELMARVA PENINSULA. FEE IS \$5 FOR MEMBERS, \$8 FOR THE GENERAL PUBLIC. CALL THE ARBORETUM AT 410.634.2847 FOR ADDITIONAL INFORMATION AND TO REGISTER, OR ON THE WEB AT [HTTP://WWW.ADKINSARBORETUM.ORG](http://www.adkinsarboretum.org).

**SAURDAY, 27 APRIL 2002** – UNIVERSITY OF DELAWARE BOTANIC GARDEN SPRING PLANT SALE. MORE INFORMATION ABOUT THE PLANTS AND AN ONLINE ORDER FORM AT [HTTP://AG.UDEL.EDU/UDBG](http://ag.udel.edu/udbg).

**SATURDAY, 4 MAY AND SUNDAY, 5 MAY 2002** – DELAWARE NATURE SOCIETY'S ANNUAL NATIVE PLANT SALE. FOR MORE DETAILS GO TO THEIR WEBSITE AT [WWW.DELAWARENATURESOCIETY.ORG](http://www.delawarenaturesociety.org).

**MONDAY, 13 MAY 2002** – THE NEW CASTLE COUNTY MASTER GARDENERS IS HAVING A WORKSHOP CALLED "GO NATIVE", 6:30 PM TO 8:30 PM AT THE COOPERATIVE EXTENSION BLDG. (910 SOUTH CHAPEL STREET, NEWARK.) THERE WILL BE A DISCUSSION OF THE ADVANTAGES OF USING NATIVE PLANTS IN HOME LANDSCAPES USING THE MASTER GARDENERS TEACHING GARDEN AS AN EXAMPLE. LISTS OF NATIVE PLANTS, AS WELL AS RETAILERS, WILL ALSO BE SUPPLIED. COST IS \$12.

**6-8 JUNE 2002** – NATIVE PLANT CONFERENCE AT MILLERSVILLE UNIVERSITY. INFORMATION ONLINE AT [HTTP://MUWEB.MILLERSVILLE.EDU/~NPITL/SCHEDULE.HTML](http://muweb.millersville.edu/~npitl/schedule.html).

**6-8 JUNE 2002** – SEDGES 2002: INTERNATIONAL CONFERENCE ON USES, DIVERSITY, AND SYSTEMATICS OF CYPERACEAE. THIS CONFERENCE IS HOSTED BY THE CLAUDE E. PHILLIPS HERBARIUM, DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES, DELAWARE STATE UNIVERSITY, DOVER, DE. CO-SPONSORED BY NRCS, USDA, SOCIETY OF NATURAL HISTORY OF DELAWARE, AND THE DELAWARE NATIVE PLANT SOCIETY. FOR MORE INFORMATION GO TO OUR WEBSITE AT [WWW.DELAWARENATIVEPLANTS.ORG](http://www.delawarenativeplants.org) OR CONTACT DR. ROBERT F. C. NACZI AT [RNACZI@DSC.EDU](mailto:RNACZI@DSC.EDU) OR 302.857.6450.

**DNPS BI-MONTHLY MEETINGS FOR 2002** – ARE CURRENTLY SCHEDULED THE 3RD TUESDAY OF EVERY OTHER MONTH (EXCEPT MAY). OUR NEXT MEETINGS WILL BE JULY 16, SEPTEMBER 17, AND NOVEMBER 19, 2002. MEETINGS WILL TAKE PLACE, UNLESS OTHERWISE NOTIFIED, AT 7 PM AT THE AQUATICS RESEARCH AND EDUCATION CENTER, WOODLAND BEACH WILDLIFE AREA, RTE 9 (4876 HAY POINT LANDING ROAD) ABOUT 1 MILE NORTH OF RTE 6. WITH THE EXCEPTION OF THE JANUARY MEETING, WE WILL HAVE GUEST SPEAKERS AT EACH MEETING (SPEAKERS AND THEIR TOPICS TBA AT A LATER DATE). ACTIVITIES MEETING WILL TAKE PLACE AFTER EACH SEMINAR. CHECK OUR WEBSITE FOR ADDITIONAL DETAILS OR EMAIL US AT [DNPS@DELAWARENATIVEPLANTS.ORG](mailto:DNPS@DELAWARENATIVEPLANTS.ORG).

# Membership Application

## DELAWARE NATIVE PLANT SOCIETY

### Member Information

Name:

Business Name or Organization:

Address:

City and Zip Code:

Telephone (home/work):

E-mail address:

" Individual \$15.00

" Full-time Student \$10.00

" 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 and field trips

**Total Amount Enclosed: \$**

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

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

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