

# The Turk's Cap

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY AUTUMN 2001

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## 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), or Keith Clancy at 302.674.5187.

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## A SPICED MUG OF WARM APPLE CIDER WELCOME TO OUR NEWEST MEMBERS

### July through September

Patricia Hackett  
Julia Lynch  
Bob Meadows  
Dr. Robert F. C. Naczi  
David G. Smith  
Mr. & Mrs. William F. Stout

## 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, fieldtrips, and a 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 expert botanist. One of the primary goals of the society is to involve as many individuals as possible.

The DNPS is working on several significant projects at this time. We are active in a reforestation project at Prime Hook State Wildlife Area. A second initiative underway is the establishment of a native plant nursery. We have four beds in this nursery and it looks great so far. We encourage everyone to participate in these, as well as other DNPS endeavors.

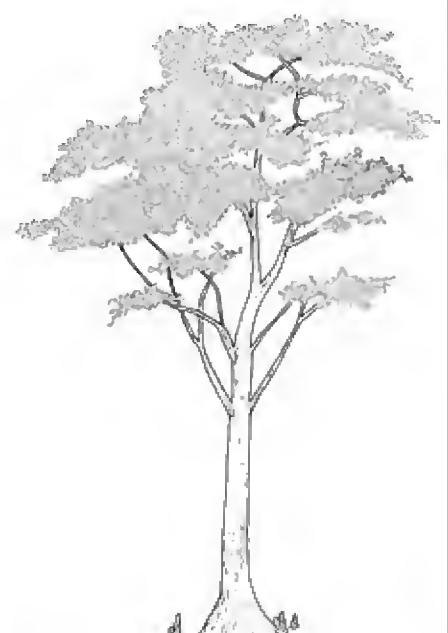
For more information on how to get involved, call 302.674.5187, or E-mail at dnplant@aol.com. Or visit the DNPS website at

## LETTER FROM THE PRESIDENT

Our world will never be the same. As I write this letter it is now more than three weeks since the horrible, incomprehensible terrorist attacks on our nation. And like all of you, I am still in shock and filled with anger and sadness. I am also trying hard to get back to some kind of normalcy.

Up until September 11, 2001 we were pretty well insulated from the terror, or threat of terrorism, that grips much of the world on a daily basis. Sure, we were witnesses to the attack on the World Trade Center in 1993, but that attack was

*Continued on page 4*



**LETTER FROM THE EDITOR****A TIME OF CHANGE**

Autumn certainly is a time of change. The leaves are turning color and fading fast, the grasses of the countryside are adorning their true gold, bronze and purple hues, the birds are working furiously to get to warmer climes, and the snow geese have returned. I recently had to make some changes myself, as I was forced to endure the bothersome task of leaving one job and finding another. Not an easy thing to do for the most part, but with a little help from some friends and my usual dogged determination to not be ordinary, everything has turned golden once again.

And speaking of golden, have you seen the grasses out in the old field habitats lately? They are spectacular! I became quite intrigued with Delaware's native grasses this year, so I was quite happy to see the topic of our Native Plant Highlight. I attempted to create some native grass gardens in my yard during the late summer, but other obligations have kept me busy. Perhaps over the winter I'll take the Feature Article I wrote and put it to good use. Landscape design, as I have found, is quite a job, but the rewards are worth every aching muscle. And if I thought the grasses were spectacular, one gaze out over a cordgrass saltmarsh at the glasswort, now in full, blazing glory, is even more of a treat. Our Native Community Highlight goes into some detail on this beautiful plant community.

This issue is also replete with field trip highlights. Our new Field Trip Coordinator, Diane Chance, has been doing a great job of organizing some very interesting events. We hope everyone will take the chance to enjoy them. Have a great Autumn!



••••• *Eric Zuelke, Editor*

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**PLANT-ANIMAL HIGHLIGHT****LADY BEETLES, APHIDS, AND THE PLANTS IN THE MIDDLE**

In the never ending battle against all those critters that seem to want to do nothing but destroy all the plants that you spent countless hours nursing to full blooming glory, we have one strong ally; the ladybug. Ladybugs are not true bugs at all (those are Hemipterans), and are more appropriately called lady beetles, or lady-bird beetles because they are in the taxonomic Order Coleoptera (Family Coccinellidae) that includes other critters such as weevils, scarabs, whirligig beetles, potato beetles, and fireflies. Lady beetles are true defenders of herbaceous beauty and are often considered beneficial insects because they feed on insects that are harmful to vegetation. These are primarily aphids, of which they can consume up to 1,000 in a lifetime in both their larval and adult stages. Lady beetles will also consume large numbers of whitefly, mealybugs, scales, mites, and many other soft bodied insects, as well as bollworms, broccoli worms, cabbage moths and tomato hornworms.

Aphids (Order Homoptera, Family Aphididae) are the bane of anyone who tries to grow a vegetable garden or have ornamental plants inside their home. They are small soft-bodied, plant-sucking insects that feed on the phloem fluid of plants with piercing mouth parts. They are one of the most

common pest groups of ornamental plants. There are thousands of species of aphids, and they feed on all types of vegetation. The white pine aphid feeds on the bark of twigs and branches of Eastern white pine, woolly alder aphids feed and reproduce on silver maple, and the pine bark adelgid and similar adelgids feed on spruce, larch, and other conifers. Many others feed on vegetables and fruit trees. One of the primary problems associated with aphids is the damage they do to plants. In some cases, the aphids cause damage directly and in other cases, they transmit plant viruses that cause the damage. Because viruses are intracellular parasites, their biological success, and the subsequent economic impact of the diseases they cause, is dependent on the ability to spread from one host to a new one. For the majority of viruses, this spread from host to host depends on the activities of other organisms known as vectors. Most vectors are plant sucking insects. Slightly more than half of the plant viruses are transmitted by aphids and about 30% of plant virus genera contain aphid-transmitted viruses. Aphids are therefore one of the most economically significant groups of vectors, and over 300 species of aphids have been reported to transmit viruses.

There are many garden center and nurseries that sell lady beetles to be released in gardens as biological weapons against invaders like aphids. One common complaint with lady beetles is that once released they will fly off to never be seen again. The truth is that once released a portion will fly off, and that once the aphids are consumed another portion will fly off looking for food. But there are a few things that you can do to get your lady beetles to stay. First, always release them in the evening, they are not very active at this time because of the cooler temperature. You could also cover the plants you release them on with screening to keep them around until they lay eggs.

In the battle to keep our plants alive and healthy, we have few natural allies, but one of the best is the lady beetle.



••••• *Eric Zuelke, Editor*

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**RESOURCES AND REVIEWS****NEW PUBLICATION COMING SOON!**

"Delaware Native Plants for Landscaping and Restoration: recommended species for the property owner and land steward"

Available by the end of October, this small booklet contains a select list of Delaware native species that are recommended for landscaping and restoration activities. Information is given on each species light (shade versus sun) and moisture preferences (dry or wet), its habit, form, flowering time and color, height, wildlife values, and whether it is found on the piedmont or coastal plain or both. In addition, there is a list of native plant sources and selected references related to growing native plants. This book sells for \$5 (shipping included) and can be obtained by mailing a check to the DNPS at P. O. Box 369, Dover, DE 19903. Or for more information call (302) 674-5187 or dnplant@aol.com.



••••• *DE Native Plant Society*



## **NATIVE PLANT COMMUNITY HIGHLIGHT**

# *Salicornia maritima* Tidal Herbaceous Vegetation Glasswort Tidal Herbaceous Vegetation-Saltpanne

## Introduction

This community is dominated by *Salicornia maritima* (glasswort) and is primarily found in low, poorly drained depressions of the *Spartina alterniflora* (saltmarsh cordgrass) low marsh known as “salt pannes.” The glasswort community may form dense colonies throughout a panne or may be comprised of only a few plants. In fact, some pannes may be completely devoid of vascular plants. During low tides, as water pools in and then evaporates from these depressions, the salinity level increases, leading to formation of the salt panne. This is an extremely saline habitat that few vascular plant species are able to occupy. Two other species of glasswort, *S. virginica* and *S. bigelovii*, are state rare plants in Delaware and rare associates within this community type. The short form of *Spartina alterniflora* is a frequent associate in the glasswort panne community. Additional infrequent associates include *Limonium carolinianum* (sea-lavender) and *Atriplex patula* (spearscale). Algal mats of various species may be present.

In the fall, these communities are easy to spot, as the glassworts turn a brilliant red, creating stunning scarlet patches within the golden swath of the saltmarsh.

## Distribution

This community is prevalent in salt marshes along Delaware Bay and in the Inland Bays, and is especially common on the Great Marsh and the Lewes Creek marsh, Sussex County. The community ranges from the Maritime Provinces to Virginia and possibly south to South Carolina.

••••• Peter Bowman, DE Natural Heritage Program Ecol-



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## **EVENT HIGHLIGHTS**

## **THE CLAUDE E. PHILLIPS HERBARIUM TOUR**

On Saturday, August 25 - Dr. Arthur Tucker and Dr. Susan Yost hosted a group of 15 Delaware Native Plant members and friends at the Claude E. Phillips Herbarium on the campus of Delaware State University. Their new facilities were bright, spacious, and healthy. The herbarium is climate-controlled and has a large open area that allows for workers to easily process specimens (i.e., mounting, sorting, or packaging for loans). In addition, there is an extensive botanical library, and separate office spaces for the director, curator and educator. There is a spiral staircase connecting the two floors as well as an elevator, the latter is particularly useful if one is moving large numbers of specimens between floors.

Dr. Tucker explained that for throughout much of the history of herbarium curation, plant specimens were treated with toxic materials to prevent insect damage and these toxins were also placed within herbarium cabinets. Botanists studying these specimens were exposed to these chemicals over many years. Recently, it has been discovered that natural oils of

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**NATURAL QUOTE**

“No one has the right to destroy anything in the wilderness; such things belong to all and must not be disturbed. Freedom gives no license to violate a heritage that belongs to the ages.”

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

## **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. Now 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/default.asp>; <http://landscaping.about.com/mbody.htm>; <http://www.gardendesigner.com>.

Eric Zuelke, Editor



## LETTER FROM THE PRESIDENT

*Continued from page 1*

mild and resulted in a comparatively small loss of lives. And the attacks on the U.S.S. Cole and the U.S. embassies in Africa occurred on distant lands. September 11<sup>th</sup> was close to home and has impacted all of our lives, profoundly and forever.

Though my thoughts are elsewhere I think it is important that I write about the native plant society and our recent activities. I think it's imperative that all of us try and get back to living normal lives, as much as that is possible. Writing about or engaging in native plant activities is therapeutic and will show those terrorists that they have lost. So, I will set aside my preoccupation with the events of September 11<sup>th</sup> and terrorists and focus on the DNPS.

It was a very exciting summer. Although our nursery efforts were not that productive this year we did learn a lot and will aim to be more successful next year. Exciting and interesting field trips took place. Those that attended our kayaking outing on scenic Prime Hook Creek, in early August, were rewarded immensely and everyone had a great time. There was a profusion of blooming marsh plants that included an abundance of swamp mallow (*Hibiscus moscheutos*), white water lilies (*Nymphaea odorata*), pickerelweed (*Pontederia cordata*), the rare shrub, seaside alder (*Alnus maritima*), among many other species. The seaside alder was blooming in profusion along the banks of the creek.

Towards the end of August about 15 people attended a fact-filled and very interesting tour of the Claude E. Phillips Herbarium at Delaware State University. This brand-new facility is state of the art and the main repository for plant specimens on the Delmarva Peninsula. Drs. Susan Yost and Arthur Tucker were our tour leaders and provided lots of information about the facility. Our many thanks to them for the tour.

In early September, the DNPS and the Maryland Native Plant Society combined on a joint field trip to an organic farm on Maryland's Eastern Shore. Read all about in our Event Highlights section.

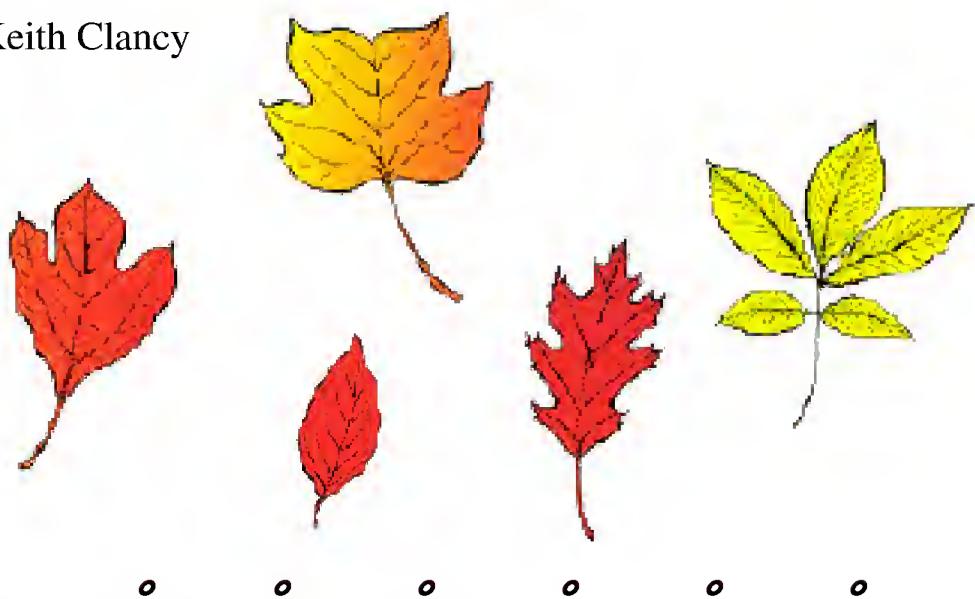
Now that autumn is upon us, DNPS members are busy preparing for our very first native plant sale, scheduled for November 3, 2001, at the St. Jones Reserve. Members are donating native plants from their own properties. These are mostly tree and shrub seedlings that have germinated and are growing in areas that they are not wanted (e.g., in the lawn, or along the driveway or on a trail). I am very excited by this sale and expect that we will have many attractive and healthy plants available to the public (including DNPS members) at low, low prices. We should have between three and five hundred native plants for sale. Also, on October 20<sup>th</sup>, and maybe again on the 27<sup>th</sup>, I will be looking for a few members to help dig-up about forty-fifty well-established plants from our rescued plant beds. We are going to ball and burlap many of these. I will be sending out an announcement shortly about this sale to all members.

I also expect that we will have available for sale, at the native plant sale, the forthcoming booklet (slightly late), *Delaware Native Plants for Landscaping and Restoration: Recommended species for the property owner and land steward*.

I hope to see everyone at our native plant sale in November. Until next time, stay safe and sound and enjoy your native plant gardening endeavors. My thoughts and prayers go out to the September 11<sup>th</sup> terrorist attack victims, their families and friends. I guess we are all victims in a sense.

Sincerely,

Keith Clancy



### **NATIVE PLANT HIGHLIGHT**

#### **THE GRASS FAMILY (POACEAE)**

In the last issue of the *Turk's Cap*, I discussed the Cyperaceae (Sedge Family) in Delaware and provided data on its overall status and distribution in the state. I also pointed out the difficulty that occurs in species identification, and due to this fact, the family is frequently avoided by many people. In this issue, I discuss another family that can be difficult to identify and often strikes fear into the hearts of those who attempt to key-out species, and that family is the Poaceae, or the Grass Family.

As with sedges, to identify grasses, technical manuals are usually needed and a familiarity with the botanical terms used to describe the morphological features of grasses are required. In addition, species in the grass family do not have showy, colorful flowers as the wildflowers do and thus are often ignored or overlooked in the field.

The main "field" characters that distinguish a grass from a sedge are: grasses have hollow stems, vs. solid stems for sedges; grasses have joints where the leaves are attached, vs. no joints for sedges; the base of the leaves of grasses wrap around the stem in a structure called the sheath that is open, versus sheaths that are closed for sedges. In addition, the flowers (referred to as florets) of grasses are arranged differently than the flowers of sedges, and the flower structures of grasses are slightly different than the flowers of sedges.

The Poaceae is well represented in the state of Delaware. It is the second largest family in the state, composed of 237 native and non-native species and varieties (the largest family in the state is the Asteraceae, aster or daisy family with 238 species and varieties). There are 77 genera within the grass family in Delaware with the largest being *Dichanthelium* with 34 species and varieties. This diversity of grasses in Delaware is primarily due to diversity in habitat; from dunes and upland forests, to tidal and nontidal wetlands and swamps.

The majority of grasses in Delaware are found growing in the Coastal Plain physiographic province, with 81 species and varieties being restricted to this region. In contrast, 25 species and varieties are restricted to the Piedmont province. Seventy-three (73) species and varieties of grasses in Delaware are not native to the state and 8 non-native species are considered to be invasive. When considering the overall natural distribution of grasses in the eastern United States, 60 species of grasses in Delaware are at or near their northern limits of distribution

and 23 species of grasses in the state are at or near their southern limits. The grass flora of Delaware is primarily perennial (174 species and varieties), compared to 63 species and varieties that are annuals.

A high percentage (41%) of the grass flora of Delaware is rare or uncommon. Sixty-seven (67) species and varieties are considered to be rare or uncommon in the state and 7 are known from only a single occurrence or population. In addition, 20 are historical, meaning they have not been reported for 20 or more years. Furthermore, two (2) species are thought to be gone, or extirpated in the state. One species, *Panicum hirstii*, is globally rare and is known from only four sites worldwide (Sussex Co., Delaware, southern New Jersey, and two in North Carolina).

There are several species of grasses that are available in the nursery trade and would make great additions to native plant gardens. Some of these species include: *Andropogon gerardii* (big bluestem), *Andropogon virginicus* (broom-sedge), *Panicum virgatum* (switch panic grass), *Saccharum giganteum* (giant plume grass, synonym = *Erianthus giganteus*), *Schizachyrium scoparium* (little bluestem, synonym = *Andropogon scoparius*), and *Sorghastrum nutans* (yellow Indian-grass).

To conclude this series on grasses and sedges, I'll emphasize that the grass and sedge families are two of the most diverse families of vascular plants in Delaware, and in my opinion the most fascinating ecologically and in many cases, the most attractive. So I encourage you to try your hand at keying them-out and to learn more about their ecology and life history.

oooo  William McAvoy, DNPS member

### **EVENT HIGHLIGHTS**

*Continued from page 3*

various plants and herbs serve the same purpose. By using mixtures of such aromatic substances as peppermint oil, cloves, and cinnamon, damage is prevented and one's health is not at undue risk. An added benefit is that when the cabinets are opened, spicy odors fill the room. "It's like aromatherapy," Dr. Tucker explained.

The collection specializes in Delmarva collections but has specimens from all over the world. Important collections by William Canby, Albert Commons, Edward Tatnall and Robert Tatnall are housed here. A few of the oldest specimens date to the 1700s. Each plant is dried and mounted on paper. The drying process requires low heat, low humidity, and should be done as quickly as possible. The collection now houses more than 100,000 specimens with room for many more.

The goal of the herbarium is to serve as an educational resource as well as a research facility. Specimens are available, on a loan basis, to other botanical researchers at accredited institutions, such as universities or botanical gardens. The herbarium is also open to the public with hours by appointment.

oooo Diane Chance, DNPS Field Trip Coordinator

**THE HASTINGS ORGANIC FARM TOUR**

On Saturday, September 8, 2001, a group of nine avid native plant enthusiasts from Delaware and Maryland gathered at Rose Point Farm, an organic farm owned by Bill and Shirley Hastings. Bill has served on the Maryland Board of Certified Organic Growers for ten years and Shirley is certified in Nutrient Management. She's also recently taken the test that will qualify her to be an inspector of organic farms for the National Program. Together they've farmed Rose Point's twenty acres for over 18 years.

Bill gave us an enthusiastic overview of organic growing and assured us that it is a profitable business. "Organic foods are more popular now than ever. People are coming to realize that to be healthy, you need to eat healthy foods."

"When you use toxic chemicals to control pests, you poison the soil for a long time. Someone I know had a soil test done not too long ago. It showed traces of DDT. DDT was banned 25 years ago and it's still with us."

Shirley told us that when they moved to the farm the only birds they saw were crows. She believed that songbirds were an indication of a healthy ecosystem and she worked to provide habitat for them. Now their property is surrounded with a buffer of tall shade trees filled with the sounds of birds.

Birds are an important part of organic gardening, according to Shirley. "One year," she said, "the grasshoppers came up out of the ditch and worked their way across the field devouring everything in sight. Bill plowed under a thirty foot band of crops in order to stop their progress. It worked. As soon as the grasshoppers entered that barren stretch of field, the birds swooped down and ate them up." "We lost a good part of our crop that year, but we salvaged most of it, thanks to the birds," Bill said.

Someone asked about companion plantings. "Generally they don't seem to work, at least not on a commercial level," Shirley told us. "But buckwheat will crowd out wiregrass."

"We were told to plant basil in our tomato field to prevent insect damage," Bill laughed, "We did but the insects ate both the tomatoes and the basil alike. Although the tomato crop was lost, something good did come of it all. Once the weather changed, the basil sprouted back up nice and full. We harvested it and sold it in little bouquets for \$1.25 each."

In addition to hearing other success stories, we wandered through fields of squash and amaranth, green beans and strawberry plants. We tasted the sweetest cherry tomatoes ever grown and ate grapes worthy of a king's table. Even the organically grown fish came to the edge of the pond when Bill stomped his feet on the bank.

There were so many questions and so much enthusiastic discussion, our hour's tour stretched into two and a half. We bid the Hastings farewell with a renewed appreciation for good land stewardship and directions to a vegetable stand down the road that sold organic produce.

**oooo Diane Chance, DNPS Field Trip Coordinator**

**KAYAKING PRIME HOOK CREEK**

Our kayak outing along Prime Hook Creek on August 4, 2001, was a great success and enjoyed by all (even the few people that were canoeing). About a dozen of us hit the creek at

the peak time for flowering plants and the weather was great; a cloud cover kept the temperature down. Biting insects were conspicuous by their absence. The swamp rose-mallow (*Hibiscus moscheutos*) was in full bloom along the creek banks. This member of the Mallow Family and relative of the cotton plant, has beautiful large flowers with striking white or pink petals, with characteristic dark pink or purple centers. Other attractive plants we observed included the white water lily (*Nymphaea odorata*), pickerelweed (*Pontederia cordata*), water smartweed (*Polygonum* sp.), spatterdock (*Nuphar advena*), dodder (*Cuscuta* sp.), bladderworts (*Utricularia* spp.), water-willow or swamp loosestrife (*Decodon verticillatus*), arrow arum (*Peltandra virginica*), Virginia meadow-beauty (*Rhexia virginica*), and blue flag (*Iris virginica*), among many others. The narrow streamside scrub or low forest community was comprised primarily of red maples (*Acer rubrum* v. *rubrum* and *A. rubrum* v. *trilobum*), some green ash (*Fraxinus pensylvanica*), willow oaks (*Quercus phellos*), black gum (*Nyssa sylvatica*), sweet bay magnolia (*Magnolia virginiana*), sweet pepperbush (*Clethra alnifolia*), fetterbush (*Leucothoe racemosa*), swamp rose (*Rosa palustris*), smooth alder (*Alnus serrulata*), seaside alder (*A. maritima*), to name a few. As early as the first week in August the red maples and poison-ivy foliage was beginning to turn red. The short-statured maples were often festooned with many hemi-parasitic mistletoes (*Phoradendron leucarpum*) and the rare seaside alder (*Alnus maritima*) was in abundance along this stream. Ferns observed included the marsh fern (*Thelypteris palustris*), royal fern (*Osmunda regalis*), cinnamon fern (*O. cinnamomea*), netted chain fern (*Woodwardia areolata*), and Virginia chainfern (*W. virginica*). Aquatic plants were not overlooked. The native coontail or hornwort (*Ceratophyllum demersum*) and the invasive exotic, hydrilla (*Hydrilla verticillata*) were abundant along some stretches of the creek. Pondweeds (*Potamogeton* spp.) and water-milfoils (*Myriophyllum* spp.) were also in abundance. All in all it was a great trip learning about and observing the mostly native flora of Prime Hook Creek and its streamside vegetation. Traveling by kayak (or canoe) was an excellent way to get up close and personal with the plants along this meandering stream.

**oooo Keith Clancy, President**



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## UPCOMING EVENTS

**SATURDAY, 01 OCTOBER THROUGH 30 NOVEMBER 2001** – “BOTANICALS AND BUGS” AT THE VISITORS CENTER, ADKINS ARBORETUM. A RECEPTION TAKES PLACE ON FRIDAY, OCTOBER 19, FROM 6-8 P.M. AND A DEMONSTRATION BY THE ARTIST WILL TAKE PLACE ON NOVEMBER 3, FROM 2-4 PM. JOIN NATURAL SCIENCE ILLUSTRATOR, AND AMERICAN SOCIETY OF BOTANICAL ILLUSTRATORS’ EDUCATIONAL ADVISOR SHARON O'HARA FOR AN ILLUMINATING AFTERNOON COMBINING SCIENCE AND ART. ADKINS ARBORETUM IS LOCATED AT 12610 EVELAND RD, RIDGELY, MD. FROM RTE 50 TAKE RTE 404 TO HILLSBORO. TURN NORTH ONTO RD. 480 AND IMMEDIATELY TURN LEFT ONTO EVELAND ROAD. THE ARBORETUM IS TWO MILES ON THE LEFT. CENTER HOURS: 9 A.M. TO 5 P.M., MONDAY-SATURDAY (EXCLUDING HOLIDAYS). FOR MORE INFORMATION, CALL 410.634.2847. FEE REQUIRED: \$10 MEMBERS, \$15 NON-MEMBERS.

**SATURDAY, 20 OCTOBER 2001** – AUTUMN AT ABBOTT’S MILL FESTIVAL. FROM 10 AM TO 4 PM, LIVE RAPTOR & REPTILE DEMONSTRATIONS, GUIDED CANOE EXCURSIONS, GRISTMILL TOURS, CHILDREN’S ACTIVITIES, COLONIAL SKILLS DEMONSTRATIONS, NATIVE AMERICAN & ENVIRONMENTAL EXHIBITS, CRAFT SALES, MUSIC AND REFRESHMENTS. ABBOTT’S MILL NATURE CENTER. FOR MORE INFORMATION CALL 302.422.0847, OR ON THE WEB AT [WWW.DELAWARENATURESOCIETY.ORG](http://WWW.DELAWARENATURESOCIETY.ORG).

**SATURDAY, 27 OCTOBER 2001** – 9 AM TO NOON, FALL TREE PLANTING AT MIDDLE RUN NATURAL AREA, HELP PLANT 1000 TREES AS PART OF THE DELAWARE NATURE SOCIETY’S ONGOING FOREST RESTORATION PROJECT IN ITS 815-ACRE MIDDLE RUN NATURAL AREA PARK NEAR NEWARK, DELAWARE. IF YOU ARE INTERESTED IN PARTICIPATING, CALL LANDOWNER CONTACT COORDINATOR MELISSA McDERBY AT 302-239-2334 EXT. 26 FOR LOCATION AND OTHER DETAILS.

**SATURDAY, 03 NOVEMBER 2001** – DNPS NATIVE PLANT SALE, FROM 10:00 AM – 3:00 PM, AT THE ST. JONES RESERVE. HUNDREDS OF TREES, SHRUBS AND, A FEW, HERBS OF NATIVE SPECIES WILL BE AVAILABLE AT VERY REASONABLE PRICES. DIRECTIONS: ST. JONES RESERVE, TAKE RTE 1/RTE 113 TO JUST SOUTH OF THE DOVER AIR FORCE BASE TO THE RTE 9/KITTS HUMMOCK RD. INTERSECTION; GO EAST ON KITTS HUMMOCK ROAD ABOUT 1 MILE TO THE ENTRANCE OF THE ST. JONES RESERVE (LOCATED RIGHT NEXT TO THE JOHN DICKINSON MANSION). FOR MORE INFORMATION CALL 302-674-5187 OR EMAIL [DNPLANT@AOL.COM](mailto:DNPLANT@AOL.COM).

**THURSDAY, 08 NOVEMBER 2001** – MR. ROD SIMMONS, A WELL-KNOWN ECOLOGIST, GEOLOGIST, EDUCATOR, AND VICE-PRESIDENT OF THE MARYLAND NATIVE PLANT SOCIETY, PROVIDES A BEAUTIFUL LOOK INTO THE DIVERSITY AND COMMUNITY ECOLOGY OF TREES IN MARYLAND. WITH SLIDES, WE’LL TRAVEL FROM THE COASTAL PLAIN TO THE MOUNTAINS. FROM 7-9 PM. ADKINS ARBORETUM IS LOCATED AT 12610 EVELAND RD, RIDGELY, MD. FROM RTE 50 TAKE RTE 404 TO HILLSBORO. TURN NORTH ONTO RD. 480 AND IMMEDIATELY TURN LEFT ONTO EVELAND ROAD. THE ARBORETUM IS TWO MILES ON THE LEFT. FOR MORE INFORMATION, CALL 410.634.2847. FEE REQUIRED: \$8 NON-MEMBERS, \$5 MEMBERS.

**TUESDAY, 20 NOVEMBER 2001** – 7 PM TO 9 PM, NATIVE PLANT SOCIETY BIMONTHLY MEETING. WE WILL HAVE A PRESENTATION FIRST, AND SHORT BUSINESS MEETING AFTERWARDS. THE MEETING WILL BE HELD AT THE AQUATIC RESOURCES EDUCATION CENTER, 4876 HAY POINT LANDING RD., SMYRNA, DE. DETAILS AT A LATER DATE.

THE KENT COUNTY PARKS DIVISION REQUESTS DNPS MEMBER PARTICIPATION IN DEVELOPING THE FINAL PLAN FOR A DEMONSTRATION RAIN GARDEN AT THE BRECKNOCK PARK NATIVE PLANT GARDEN. THIS GARDEN SERVES AS A SAMPLING OF SUBURBAN LANDSCAPE PRACTICES USING NATIVE AND NATURALIZED DELMARVA PLANT SPECIES EXCLUSIVELY. THE NEW RAIN GARDEN WILL BE ADDED TO SHOW HOW STORMWATER CAN BE BENEFICIALLY BIO-RETAINED IN A WETLAND PLANTING BED, RATHER THAN SIMPLY DISCHARGED TO THE STREET. WE HOPE TO COMPLETE SITE PREPARATION AND CONSTRUCTION OF THE SYSTEM BY EARLY OCTOBER, AND TO PLANT THE GARDEN BY NOVEMBER 1. CALL CARL SOLBERG 302.698.6451 FOR MORE INFORMATION.

# 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

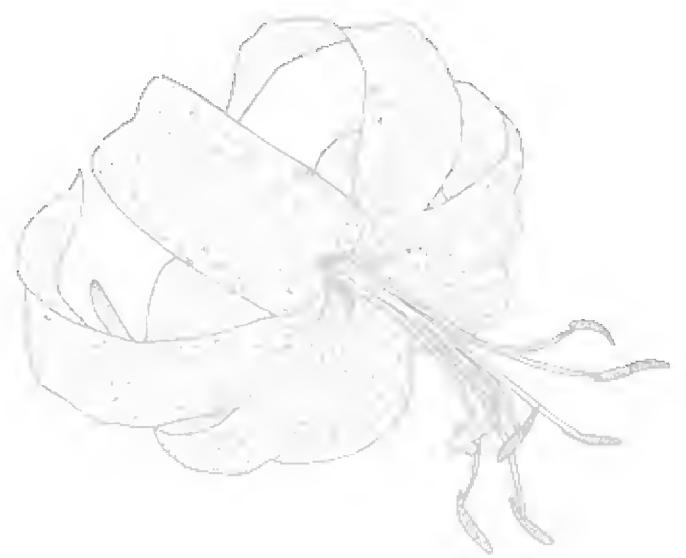
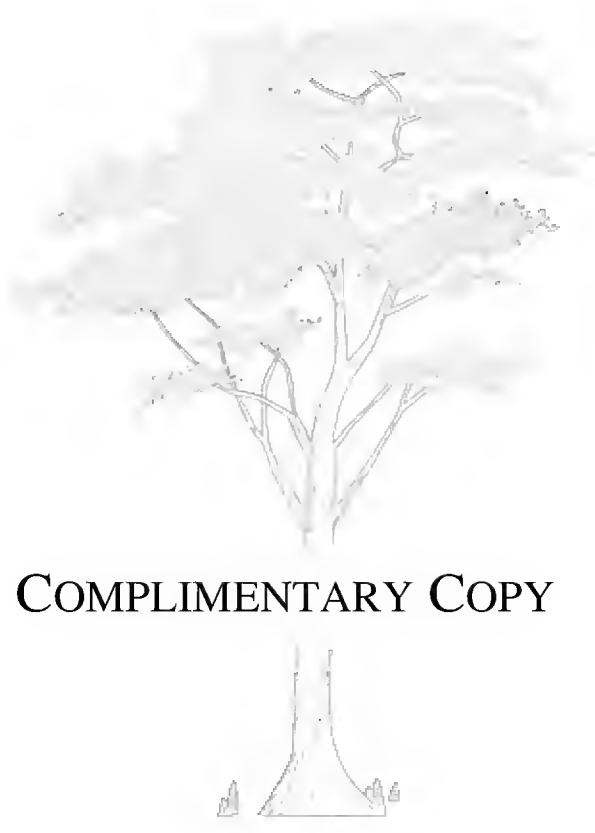
**Total Amount Enclosed: \$**

**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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