

The Turk's Cap

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY SUMMER 1999

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A CALL FOR ARTICLES

Are you tired of seeing the names Keith, Bill, Doug and Eric at the end of articles in *The Turk's Cap*? If so, then write an article yourself. Don't let us have all the fun! 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 guideline. 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 WARM, LEAFY WELCOME TO OUR NEWEST MEMBERS

April through June

Margaret Carter

Priscilla Goldsmith & William Collins

Kaye Murray

Martin Scanlon

Jim & Amy White

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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 expert botanist. One of the primary goals of the society is to involve as many individuals as possible.

Presently, most of Society-related activities and efforts have been performed by only a few members. The DNPS plans on becoming more active in a number of directions in 1999. Specific 1999 goals will be determined in the upcoming months, and they will be undoubtedly requiring involvement from more of our members.

For more information on how to get involved, call 302.674.5187. Or visit the DNPS website at www.delanet.com/~dnpswp.

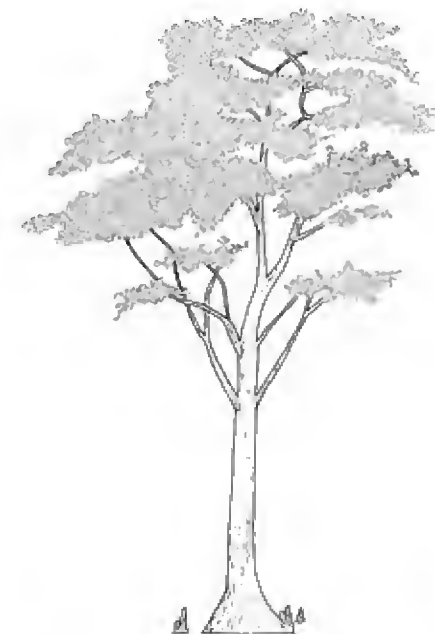
LETTER FROM THE PRESIDENT

As I write this letter we are in the midst of the summer's first heat wave and, since I do not have the benefit of air-conditioning I am doing my best to stay cool; I think I will go out and run under a sprinkler when I am done here. The question that is in my mind is: what happened to Spring? Did the spring flora seem even more ephemeral this year, or was I just too busy to really appreciate all that was blooming around me? Anyway, I hope everyone had a chance to enjoy the Spring's wildflower show and will take the time to get out and enjoy the green of summer punctuated by splashes of color from the summer's wildflowers. I also hope everyone is staying cool; is this just the

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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.



LETTER FROM THE EDITOR**THE DNPS LOGOS**

As you may have noticed on our front and back pages, The Turk's Cap Newsletter has its own set of plant mascots. These illustrations of the Turk's Cap Lily (*Lilium superbum*), seaside alder (*Alnus maritima*), and bald cypress (*Taxodium distichum*) were drawn by Chris Bennett. Chris is a local artist living in the Milton area. He and his wife Karen are both DNPS members.

When the Delaware Native Plant Society was first formed, it was deemed that the Society would have a set of symbolic native plants. During the organizational meeting in March of 1998, the 15 participants each recommended one or more plants. Everyone was given a chance at a blind vote on their favorite set of tree, shrub and herb from the recommendations. When the results were tallied, these three won.

In a subsequent meeting we determined that we needed someone, an artist, to make technical drawings that were scientifically accurate, of our three plant species. With some discussion, and knowledge of his artistic skill and record of past commissions, Chris was asked to draw our plants—a high honor indeed!

By late fall, 1998 Chris had provided us with three excellent drawings that he had scanned digitally and that were ready to be used. So, in our Spring 1999 issue of *The Turk's*

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PLANT-ANIMAL HIGHLIGHT**WHY FLOWERS SMELL**

If you have been out in the woods in the past few months, you've probably stopped to smell some flowers during your excursions. Have you ever pondered on just why flowers smell? The obvious answer is they can't—flowers don't have noses! Actually, the reason flowers have fragrances is to attract insects. Most people already know that, but did you know this...

Research has shown that there are considerable similarities between the volatile compounds produced by plants and insects. These compounds, such as fatty acid derivatives, isoprenoids, and benzenoid substances are all either excreted or secreted by both groups of organisms.

Both plants and insects have their own sets of priorities. Insects have a drive to find food and mates, plants need to be pollinated and both try to avoid being harmed by the other. Plants have adapted to the needs of insects and have manipulated these needs by mimicking insect chemical signals. Behavioral experiments have been performed which show that at least some of the compounds a plant secretes truly guide an insect. The insect cues in on that plant for food and/or mating reasons.

Now, why do some plants and insects only choose each other? Many species of insects are plant specific and vice-versa because of evolutionary co-adaptation, or co-evolution as the concept is usually known. This particular evolutionary specificity works because plants have the biochemical capabilities of producing volatile compounds of extraordinary complexity. This serves to attract many types of pollinators and this forms a basis for adaptation. If a certain species of insect is

better at pollinating a certain plant, say for anatomical reasons, than all other pollinators, the plant, over long periods of time, will adapt to that species of insect. It will begin to secrete a mixture of hormones, compounds and pheromones unique to that insect, thus forming a symbiosis that ties the species together in a unique bond. In the same manner, a suite of compounds produced by a plant may not deter all of its insect pests or predators, just the ones successful in harming the plant.

Plant/insect interactions are some of the most fascinating relationships in the world, and some of the most important. So the next time you head into the outdoors, take a moment to smell the flowers and think about the real reasons for those fra-

grances.

Eric Zuelke, editor

RESOURCES AND REVIEWS

Announcing the publication of Days Afield: Exploring Wetlands in The Chesapeake Bay Region. Since moving to Maryland in 1971, William S. Sipple has maintained an extensive journal on his outdoor experiences exploring and studying the Chesapeake Bay Region's wetlands. Days Afield is a spin-off of his journal. The book represents considerable field work in the Chesapeake Bay region—somewhere in excess of 1,500 site visits. Various anecdotal accounts of the Sipple's experiences should make the book interesting to natural history and outdoor enthusiasts. Professionals working in the field will also find it invaluable, as the book incorporates considerable literature on the region's wetlands. Many aspects of wetland ecology, biology, processes, dynamics, and management are presented, including dramatic and deploring man-induced changes to the region's wetlands.

Chapter One includes a running dialogue between an instructor (the author) and his students as he takes the readers down the Delmarva Peninsula on one of the overnights field trips he annually led for the Graduate School, U.S. Dept. of Agriculture between 1972 and 1990. Chapter Two is on freshwater marshes, both non-tidal and tidal. Chapter Three addresses the extensive brackish tidal marshes of Dorchester and Somerset Counties, which total about 135,000 acres and are so important to waterfowl and furbearers. To complete the range of tidal marshes in the region, the low diversity but highly productive salt marshes of Maryland's coastal bays are discussed in Chapter Four. The unique Pocomoke River and the nifty Nanticoke River watersheds are treated separately in Chapters Five and Six. The mysterious "potholes" of the Delmarva Peninsula, interesting non-tidal depressional wetlands, are addressed in Chapter Seven. For a number of years, the author has been interesting in the botanical finds of a turn-of-the-century botanist, Dr. Charles C. Plitt, who regularly led field excursions into what he called the "wilds of Anne Arundel." Chapter Eight is devoted to Plitt's exploits in Anne Arundel County, as well as some unique bog sites apparently unknown to Dr. Plitt. During the 1980s and 1990s, the author annually led a number of field excursions in the Chesapeake Bay Region with an informal group of botanical enthusiasts. Verbatim accounts of some of these forays are presented in Chapter Nine. The last chapter

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NATIVE PLANT COMMUNITY HIGHLIGHT**Twisted-sedge Herbaceous Community*****Carex torta* Herbaceous Community****Introduction**

Carex torta is just one of the more than 100 species of *Carex* known for Delaware. The species is characterized by its densely cespitose habit from stout forking rhizomes and cord-like roots, sturdy stems to 0.7 m in height, and its predilection for gravelly banks along streams. Its leaves are soft, dark green, 3-5 mm wide. The specific epithet, *torta*, refers to the twisted (tortuous) beak of this species perigynia (the special bract that encloses the fruit of a *Carex*).

Community structure/composition

This is a sparse to densely vegetated herbaceous community found on sand and gravel bars of streams of the Piedmont; it is characterized by the presence of *Carex torta* as the diagnostic species. This species is adapted to frequent flooding and scouring, and is shade intolerant. It may form sparse, with only a few cespitose individuals or more rarely, rather dense colonies. Infrequent associates are mostly herbaceous and include native species such as *Juncus effusus* (soft rush), *Impatiens capensis* (jewelweed), *Phalaris arundinacea* (reed canary grass), *Leersia oryzoides* (rice cut-grass), *Dichanthelium clandestinum* (panic grass), *Pilea pumila* (clearweed), and *Cryptotaenia canadensis* (honestwort). Several exotic species, including *Poa trivialis* (rough bluegrass), *Myosotis scorpioides* (water scorpion grass), *Hemerocallis fulva* (day-lily), and *Microstegium vimineum* (Japanese stilt-grass) have been noted as associates in this community, as well. Woody plants such as small scattered seedlings of *Acer negundo* (box-elder), *Salix nigra* (black willow), or *Fraxinus pensylvanica* (green ash) attempt to gain a foothold in this community but are generally thwarted by the scouring caused by periodic flooding. If the hydrological dynamics of these streams change (i.e., flooding becomes less frequent) it is likely these woody taxa would displace the rare sedge community.

Community dynamics/succession

Dependent on frequent flooding and scouring to maintain itself. If flooding frequency and intensity decreases community may be replaced by woody plants that are unable to tolerate such flooding.

Distribution

In Delaware this community occurs on gravelly sand bars along stream edges and is known from the White Clay Creek, Brandywine Creek, Shellpot Creek, and the Christina River; on the Piedmont, and with one occurrence on the Coastal Plain. All community occurrences are in the Delaware River drainage. According to The Nature Conservancy, rangewide this community occurs from the Carolinas, to Tennessee, and Virginia. It has only been recently that this community type has been noted to occur in Delaware. The species ranges as far north as Quebec, so it is likely that the community may be present elsewhere in the Mid-Atlantic and northeast.

Comments

The twisted sedge community occupies small areas of only a few

Continued on page 4

NATURAL QUOTES

'Come forth into the light of things,
Let nature be you teacher.'

William Wordsworth

FEATURE ARTICLE**SIGNS OF FOOLISHNESS: THE NEED TO KNOW LEADS THIS AUTHOR ON A WILD GOOSE CHASE**

I was looking for a spot to take a mid-afternoon break from hiking when I spotted the sign. "Do not touch the tree" it said.

The sign obviously had been there a while, since it was almost obscured by plants and had that weathered look that wood gets after a few rough winters without maintenance.

Obviously, the first thing I did was walk up to the tree in question for a closer view. I couldn't see anything special about the tree that warranted not touching it.

The sign made me want to reach out and feel the bark on the trunk, but I refrained. I walked over to another tree, one that the sign couldn't possibly refer to. I stuck my face a few inches from the tree and examined it. A couple of ants were walking up it, but other than that, it was just another pine to me. I reached out and touched it.

But this wasn't the tree I shouldn't touch, according to the sign. I stood between the two trees, looking back and forth trying to see some difference. Was it the location? Was it something about the bark? What the heck made one tree touchable and the other not? I couldn't figure it out.

Eventually, I hiked on, endlessly fascinated by every tree I passed. Which of these were touchable, which weren't?

When I finished my hike in the Loof Lirpa Wilderness, I immediately called my friend Russell at the Forest Service.

"Yeah, I remember seeing those signs," Russell said.

"There's more than one?"

"I think I've seen three or four over the years."

But Russell had no idea why they were put there, and they predated his assignment. He suggested I call the district office and see if they knew the answer. I had a better idea—I'd just go all the way to the top and call the head of the Forest Service.

Of course, that's not as easy as it sounds. In Washington, D.C., most of the agency heads have layers of folks who screen calls and serve to deflect queries, especially from the press. As I got passed up the chain of screeners, I asked each one why some trees were untouchable. A few had theories ("maybe it had been sprayed" and "perhaps it has some historical significance" were among them), but none knew the answer, and most were clearly frightened by an editor asking questions that might relate to some policy they knew nothing about. The approach was clearly getting me nowhere.

Suddenly, I had an inspiration. The signs were the only clue I had. Perhaps I could simply call the office that made

them and find out who ordered them.

Bingo. Most Forest Service and National Park Service signs are created in one shop, and the manager of that operation had been there for 20 years.

"Yeah, I remember those signs because we had a big stink about them," he said. This was more like it, I was about to find out the real scoop. I'd finally know why a few trees were untouchable while others weren't.

"You see, the guy who ordered the signs claimed they were wrong, but they were exactly what he had specified—we don't make mistakes here, it takes us too darn long to make each sign, so we check, double-check, and triple-check the work orders."

"What was wrong with them?" I asked.

According to the big-shot district manager who ordered them, they were supposed to read "Do not touch the trees." Plural, as in more than one tree. But that's not what he wrote on the work order. We fought about that for months. He even managed to get an internal inquiry started, the dolt. Well, guess who's still working at his job and who got reassigned to Timbuktu? You want to find out more about these signs, you should be talking to him, Bob _____."

The news that the signs were supposed to refer to all the trees depressed me. It didn't matter that I had no way of telling the difference between the trees, perhaps I had touched a tree that wasn't supposed to be touched. And I still didn't know why. Bob didn't want the trees touched in the first place. And, of course, since I wasn't supposed to touch the trees, I now wanted to do so more than ever.

I tracked down the manager who had ordered the signs. He'd been transferred half a dozen times, but he was still with the Forest Service. When I finally reached him, I asked, "Hey Bob, why were you trying to mark all those trees untouchable?"

Bob laughed. "I knew I hadn't heard the last of those signs," he said. It's as if they have a life of their own and are following me around forever. As curses go, I think I'd rather be the Flying Dutchman than be plagued by those signs.

"You see." Bob continued, "this was all before Leave No Trace and all the other education programs we have today. We were simply trying different approaches to keep people from pulling off dead tree branches for fires or carving their initials into trunks. It wasn't touching a tree that was the problem, but how you touched it. I didn't want to have to list all the things we didn't want people to do, so it just seemed simpler to tell everyone not to touch the trees. Of course, because the signs came out wrong, we actually protected only six trees...." His voice trailed off, and I decided to leave Bob with his memories. I had found out what I wanted to know.

A few months later, I hiked back into the Loof Lirpa Wilderness to the sign that had started the whole mess. The trees still looked the same to me, but some strange urge was compelling me to do what I originally wanted to, to touch that one "protected" tree. I approached slowly, taking in the whole tree, trying to soak in all its individual characteristics. A misshapen branch here, a dead one there, the slight lean of the tree—all this I carefully noted. Instead of merely touching it, I decided to hug the tree instead.

As I backed away, I looked down at the sap that was now stuck to my brand new synthetic T-shirt. Perhaps Bob was right. Let's not touch the trees.

◦◦◦◦ Thom Hogan

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NATIVE PLANT COMMUNITY HIGHLIGHT

Continued from page 3

square meters on sand/gravel bars in moderately high energy systems. I, personally, do not have first-hand knowledge of this Community. The description provided here for the twisted sedge herbaceous community is based on habitat and rare plant data gathered by the Delaware Natural Heritage Program and from discussions with the program's botanist and DNPS member Bill McAvoy.

Conservation status

Carex torta is a state rare species (S2), and therefore the natural community is rare as well with a Natural Heritage rank of S2 (6-20 occurrences throughout the state). The Nature Conservancy (TNC) has given a global rank (i.e. a measure of the community's rarity throughout its range) of **G3G4** (rare or uncommon, G3, to apparently secure but with cause for long-term concern, G4) to a more southerly described community (TNC was not aware of this community occurring in Delaware). From the description of the more southern *Carex torta* community I would suggest that our occurrences are equiv- ♣ alent.

RESOURCES AND REVIEWS

Continued from page 2

covers examples of a number of small but interesting Western Shore streams collectively referred to as the Sleepers—namely, Severn Run, Piscataway Creek, Mattawoman Creek, Zekiah Swamp Run, and the St. Mary's River. Indices to plant and animal scientific names and common names are also included.

Days Afield is a 6 x 9, perfect bound, glossy paper-cover book with xiv + 560 pages and 75 photos/illustrations. Published for the author by Gateway Press, Inc. The book will be available in August 1999 for \$19.95. For more information contact William Sipple at bsip333@aol.com. ♣

◦◦◦◦ William S. Sipple

FOR EVERYONE INTERESTED IN PLANTS AND THEIR CONSERVATION

Plant Talk is a quarterly magazine for anyone and everyone with an interest in plants. The magazine includes stories of where conservationists are succeeding, features explaining techniques of plant conservation, editorials, news, reports on new floras, checklists and field guides, events, and letters. The magazine is designed to be enjoyed by both the amateur and the professional. It is published by the Botanical Information Company, Ltd., a company set up for this purpose and registered in England. The advisory panel is an international team of scien-

tists.

Subscription rates are \$28.00 for a one year subscription of four issues. Write to Plant Talk, PO Box 354841, Palm Coast, FL, 32135 for a free trial issue or other information.

oooo Eric Zuelke, editor

NATIVE PLANT RESTORATION

I strongly recommend everyone read two articles that appeared in the *American Nurseryman* (July 1 and July 15, 1995 issues) entitled "Native Plant Restoration: Part I" and "Native Plant Restoration: Part II." These articles, written by Leslie Sauer of Andropogon Associates, were recently sent to me by DNPS member Flavia Rutkosky. They eloquently discuss the compelling need for the preservation and restoration of native plants in the landscape and the roadblocks that have been established that are hindering such efforts. The articles are not all doom and gloom, though, as Sauer gives examples of some successes in this area of conservation and also discusses what the home gardener can do.

oooo Keith Clancy, DNPS president

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LETTER FROM THE PRESIDENT

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beginning of global warming?

In the past few weeks the DNPS has begun a conservation initiative that we hope will be successful and will attract the support and help of many people and other conservation groups. DNPS members in attendance at recent monthly meetings have identified the protection and restoration of upland forests as one of the State's most crucial environmental and conservation issues. We are about to submit a letter discussing this issue to Nicholas A. DiPasquale, Secretary of DNREC, and we are asking that this topic be discussed at his next meeting (July 14, 1999) with the conservation community. In the letter we ask about the possibility of undertaking reforestation projects on some lands managed by DNREC. Many hundreds of acres of State Park and State Wildlife Area lands are currently in either leased crop lands (some of these are lands recently acquired and the former owners were allowed to continue to farm the lands for a period of time), have been recently clear-cut, or are mowed meadows or lawns.

Upland forests and their conservation, protection and restoration has not been a priority for DNREC (although I am encouraged by a Sunday, July 4, 1999 News Journal article that reports on the State's plans to acquire 11,000 acres of forest lands). DNREC's recent attentions have focused on fulfilling the mandates of the Clean Water Act by developing TMDL's for the state's waterways, writing nutrient management legislation that will reduce the amounts of nutrients entering our streams and inland bays, and numerous issues dealing with the state's fisheries, among many other issues. So, it is not surprising that forests and their conservation have been given little attention.

Nevertheless, protection and expansion of forests, especially upland forests, should be a high priority by virtue of

the fact that so much of our original forest cover has vanished and because forests provide a multitude of functions and values. Two important roles intact forests play are in the conservation of biodiversity and in the maintenance of ecological integrity. In addition, this issue should be given priority since there is absolutely no protection or regulations governing the protection of terrestrial forests; either at the state or federal level. I hope that our letter will not only result in expanding forest cover on state-owned lands but act as a catalyst to elevate the conservation of upland forests as a priority for the State and the conservation community.

The DNPS and its member are in a unique position to make significant changes in Delaware's conservation landscape. According to the DNPS "vision," one of our purposes is to work towards "the preservation, conservation, restoration, and propagation of Delaware's native plants and plant communities." We need people to step forward that are committed to these ideals and become active in projects that foster the use of native plants and protection of native plant species and communities. I challenge myself as well as the DNPS membership to strive to achieve this vision. We are finally making an effort with our letter to DNREC, but there is so much more that we can do. I encourage as many of you that can make it to come the next DNPS meeting on July 20, 1999 and become involved in these conservation issues.

Let me conclude this letter by informing everyone about an exciting development. It looks promising that there will be a native plant nursery starting up shortly at Bombay Hook National Wildlife Refuge. Thanks go to Mr. Paul Daly, refuge manager, for giving his approval for this nursery. Although, we still await the official word of approval from the regional office of the U. S. Fish and Wildlife Service. I hope that this will be a nursery run by the DNPS and that it will provide appropriate native plants to land managers involved in habitat restoration projects. Members that volunteer in this effort will also be able to propagate and grow plants for their own native plant landscaping activities. We are also looking into locations in New Castle and Sussex Counties for similar nursery operations. Please call me or e-mail me if you are interested in participating in our native plant nursery or would like to know more.

I hope everyone has a great, and botanically satisfying summer.

Sincerely,

Keith Clancy



NATIVE PLANT HIGHLIGHT**COMMON FERNS AND FERN ALLIES OF DELAWARE**

There are 64 species and varieties of ferns and fern allies (known collectively as Pteridophytes) known to occur in the state of Delaware. Many species are quite common and occur in all three counties of the state, and in both the piedmont and coastal plain physiographic provinces. Some species are very rare and are known from only a single, or a few localities in the state. Furthermore, one species is historical (not seen or collected for 15 or more years) in Delaware, and 6 species are thought to be extirpated (know longer exists) in the state.

Ferns are found growing in a variety of different habitat types, such as marshes, swamps, on rocks, and attached to trees, but ferns are primarily forest dwellers preferring the shady moist soils of the forest floor. Ferns reproduce by spores and have a very different life cycle than the typical flowering plants that reproduce by seed. The differences between the true ferns and the fern allies are both sexual and asexual, but vegetative characteristics help to separate them in the field. The true ferns usually have large, lacy fronds, such as the lady fern (*Athyrium filix-femina*) and the spinulose woodfern (*Dryopteris carthusiana*), while the fern allies are quite different in appearance. The fern allies have vegetative parts that can appear leafy and frond-like, such as the grapefern's (*Botrychium* spp.), but several of the fern allies are often a just a simple stem such as the horsetail's (*Equisetum* spp.) and the quillwort's (*Isoetes* spp.).

The following are some of the more common species of ferns and fern allies that are found in Delaware. If you would like a complete list of the Pteridophyte flora of Delaware, contact Bill McAvoy at the Delaware Natural Heritage Program (wmcavoy@state.de.us, or at 302-653-2880). Nomenclature follows The Flora of North America, Volume 2, 1993.

<i>Asplenium platyneuron</i>	ebony spleenwort
<i>Athyrium filix-femina</i>	Northern lady fern
var. <i>angustum</i>	
<i>Athyrium filix-femina</i>	Southern lady fern
var. <i>asplenioides</i>	
<i>Botrychium dissectum</i>	dissected grapefern
<i>Botrychium virginianum</i>	rattlesnake fern
<i>Dennstaedtia punctilobula</i>	hay-scented fern
<i>Deparia acrostichoides</i>	silvery spleenwort
<i>Diphasiastrum digitatum</i>	Southern running pine
<i>Dryopteris carthusiana</i>	spinulose woodfern
<i>Dryopteris cristata</i>	crested woodfern
<i>Dryopteris intermedia</i>	evergreen woodfern
<i>Dryopteris marginalis</i>	marginal woodfern
<i>Equisetum arvense</i>	common horsetail
<i>Huperzia lucidula</i>	shining clubmoss
<i>Isoetes engelmannii</i>	Engelmann's quillwort
<i>Lycopodium obscurum</i>	flat-branched clubmoss
<i>Onoclea sensibilis</i>	sensitive fern
<i>Osmunda cinnamomea</i>	cinnamon fern
<i>Osmunda regalis</i>	royal fern
var. <i>spectabilis</i>	
<i>Phegopteris hexagonoptera</i>	broad beechfern

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NATIVE PLANT HIGHLIGHT**PICK THE TURK'S CAP****WHERE TO THE WILDFLOWERS?**

Q. Now that spring is gone and early summer is quickly passing, the wildflowers don't appear to be as prevalent. Is there any special place I can go to see wildflowers?

A. The answer to the question is absolutely YES. First, starting in the early summer and continuing throughout the summer are the numerous goldenrods, bonesets, and an array of asters. But granted, distinguishing some of these species can be tedious; sometimes reducing the level of enjoyment during wildflower hunting. But, I think you would be amazed at the number of species that are actually out there. Second, for you more adventurous types who don't mind getting your feet wet, wetlands are the place to be. The sedges alone are draw enough, but the mallows are a sight to see. Instead of me giving you a sell-job on mallows, I would like to present an excerpt from the Seasonal Guide to the Natural Year (Weidensaul, 1992).

"The summer coastal marshes can take a toll on a human visitor. On a muggy day the sun beats mercilessly, and shade is nowhere to be found. Even worse, this is the peak of mosquito and marsh fly season, and if the breeze deserts you, the bugs will descend in hordes.

But there are rewards aplenty, and one of the finest is the mallows, which explode in bloom in late July and last through the remainder of the summer, coloring the marshes with splashes of white and vivid pink."

The mallows are members of the hibiscus family (Malvaceae), native to the wetlands of the East Coast. There are several species (including a number of introduced, roadside varieties), but the showiest of the lot is the swamp rose mallow (*Hibiscus moscheutos* ssp. *moscheutos*) – 6 or 7 feet tall, bearing clusters of flowers that may be as large as 8 inches across. Most of the rose-mallows bear white flowers with maroon centers, but scattered through the stands will be many individuals bearing pink blossoms – not a different species, but a separate variety. (Once, the white form was considered a distinct species, the crimson-eyed rose-mallow, but botanists now lump the two together.)

Growing among the rose-mallows, somewhat overshadowed by their larger cousins, will be seashore mallows (*Kosteletzkya virginica*), which reach a height of about 3 feet and bear smaller, pink flowers. Unlike the rose-mallow, which does well with brackish or fresh water around its roots, the seashore mallow is found only in tidal marshes.

HOTSPOTS

You can find mallows growing almost anywhere along the region's coast during late summer, but a few areas have veritable fields of mallows, including *Prime Hook National Wildlife Refuge* in Delaware. This refuge, with limited road access, is best seen by canoc, with Slaughter Creek and Petersfield Ditch being popular canoeing routes....Other spots for mallows are *Chincoteague National Wildlife Refuge* and *Back Bay National Wildlife Refuge*, both in Virginia, and *Bombay Hook National Wildlife Refuge* near Smyrna Delaware.

°°°° Doug Janiec, DNPS webmaster



UPCOMING EVENTS

SATURDAY, 1 AUGUST 1999 – A JOINT FIELD TRIP WITH THE DELAWARE NATURE SOCIETY (DNS). COME WITH US TO EXPLORE CAROLINA BAYS (A.K.A. DELMARVA BAYS OR COASTAL PLAIN PONDS). IN THE MORNING WE WILL VISIT SEVERAL GOOD QUALITY BAYS IN THE BLACKBIRD STATE FOREST AREA OF NEW CASTLE COUNTY AND THEN BY EARLY AFTERNOON WILL HEAD TO SUSSEX COUNTY TO VISIT THE PREMIER CAROLINA BAY ON THE DELMARVA PENINSULA. FIELD TRIP LIMITED TO 20 PARTICIPANTS. CONTACT KEITH CLANCY AT 302.674.5187 OR DNPLANT@AOL.COM TO RESERVE A SPOT AND FOR MORE DETAILS.

SATURDAY, 28 AUGUST 1999 – NATIVE PLANT SEMINAR AND PLANT SALE. IRVINE NATURAL SCIENCE CENTER, STEVENSON, MD. CALL 410.484.2413 FOR MORE INFORMATION OR ON THE WEB AT WWW.EXPLORENATURE.ORG.

SATURDAY, 25 SEPTEMBER 1999 – NATIVE PLANT SEMINAR AND PLANT SALE: THE NATIVES ARE FRIENDLY, FUNDAMENTALS OF USING NATIVE PLANTS. HARTFORD COMMUNITY COLLEGE, BEL AIR, MD. CALL 410.838.7950 (EVENINGS ONLY) OR 410.836.2469 FOR MORE INFORMATION OR ON THE WEB AT WWW.GEOCITIES.COM/RAINFOREST/VINES/2996. YOU CAN ALSO E-MAIL FOR MORE INFORMATION AT ATLANSTR@MAGNUS.NET.

A SATURDAY IN OCTOBER 1999 – TREE SPREE. MORE DETAILS AT A LATER TIME.

LETTER FROM THE EDITOR

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Cap, Chris's drawings were unveiled. We replaced the rather cumbersome transparent cut-out copy of the turk's cap lily that we were using on the top of the first page with Chris's simple but elegant drawing of a single turk's-cap lily bloom. The other drawings are watermarks on the mailing page.

The illustrations are a pen & ink stippling style and were based on photographs and pictures seen in magazines and manuals.

We're happy with the selection of these three species. The turk's cap lily is an extremely representative plant of our wetlands, the seaside alder is endemic to the Delmarva peninsula, and the bald cypress is at its northernmost limit in Delaware.

Eric Zuelke and Keith Clancy

EVENT HIGHLIGHT

OUR FIRST ANNUAL MEETING

The First Annual Meeting of the Delaware Native Plant Society was held on a brisk but sunny Saturday, April 24, 1999. The day's activities began with a native plant hike in the mature mixed hardwood forest overlooking the Brandywine Creek. Janet Ebert led the walk for about 12 members

and non-members and we were all treated to many different species in flower. Since there were so many species that we observed I will not list them here; suffice it to say we saw many of the species you would expect to see in the Piedmont during late April (see Native Plant Highlight column in The Turk's Cap, Vol 2, Number 1 for a representative list). One disturbing observation though was the presence of many exotic, invasive plant species throughout the forest; it will be a challenge for the park's staff to remove and control these species. After the morning field trip, lunch was served (a pot-luck with some delicious food), and then Mr. Carl Solberg of the Sierra Club gave an excellent slide presentation on how ditching activities along streams impacts on habitat quality. The day's activities concluded with a short business meeting that had to be adjourned early because the building we were in (the Nature Center at Brandywine Creek State Park) was closing. I hope all who attended had a good time and learned a little more about our State's native (and unfortunately exotic) plants.

DNPS WEBSITE

Missed an issue of The Turk's Cap Newsletter? Want to know about upcoming events? Then check out the DNPS website. Doug Janiec has been hard at work posting the latest and greatest columns, articles and events from the newsletters on our site. Check it out at www.delanet.com/

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<i>Polystichum acrostichoides</i>	Christmas fern
<i>Pteridium aquilinum</i> var. <i>latiusculum</i>	Northern bracken fern
<i>Pteridium aquilinum</i> var. <i>pseudcaudatum</i>	Southern bracken fern
<i>Thelypteris noveboracensis</i>	New York fern
<i>Thelypteris palustris</i> var. <i>pubescens</i>	marsh fern
<i>Woodwardia areolata</i>	netted-chain fern
<i>Woodwardia virginica</i>	Virginia-chain fern

oooo William A. McAvoy, DNPS Vice-president

**DELAWARE NATIVE PLANT SOCIETY
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