**The Turk's Cap**

**The Newsletter of the Delaware Native Plant Society**

**Volume 2, Number 1**

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**How Can I Get Involved?**

DNPS is open to everyone ranging from the novice to expert gardener/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.

**A Call For Articles**

Do you have a propensity for prose; a tendency towards text, or a leaning to letters? Then get your name in lights by writing an article for The Turk's Cap. We'll take just about anything from gardening tips to book reviews to poetry. Of course, it has to be about plants (native plants are even better), but that's a minor guideline. Your imagination is the real key.

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

**A Warm, Botanical Welcome To Our Newest Members**

**January through March**

Heather Apostolos
Rich and Betsy Archer
Karl Blom & A. Christine Tabaka-Blom
Amy Doll
W. Barksdale Maynard & Susan Matsen
Peter K. McLean
Richard Mickowski
April Veness

**LETTER FROM THE PRESIDENT**

It’s been just a little over a year since 15 individuals gathered around a table and the Delaware Native Plant Society was formed. I would like to take this opportunity to briefly reflect upon the first year’s activities of this fledgling organization and contemplate its future.

During the course of our first year we established regular monthly meetings, were able to interest a little over 30 people and organizations in becoming members, participated in the annual Tree Spree organized by the Delaware Center for Horticulture, wrote and disseminated a quarterly newsletter, and organized/undertook several exciting activities.

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**The DNPS Vision**

The purpose of the Delaware Native Plant Society (DNPS) is 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**

**Greetings From the New Editor**

Hello members, non-members and friends. As you may know, Douglas Janiec has been performing the duties of editor of this wonderful little newsletter, but he has passed the staff of responsibility to devote more of his Society efforts to the web page.

With my newfound role in life, you all now have the wonderful opportunity to learn how an animal person views plants. Being a zoologist at heart, I see animals in everything, especially some of the amazing interactions, symbioses, and parasitisms between animals of all kinds and plants. As a new feature of The Turk's Cap, each issue will highlight an interesting plant-animal interaction.

You will also probably notice some other changes to The Turk's Cap. We've expanded the number of pages to give all of you a chance to submit articles, added some new sections and are including reprinted feature articles.

We hope you will join us in the evolution of this newsletter, as it will probably continue to evolve, and the more the merrier. If you have any comments or suggestions, please let us know. A vacuum is a lonely place to work!

***Eric Zuelke, editor***

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**Plant-Animal Highlight**

**The Life of the Lupine**

Throughout the world, there are numerous examples of plant-insect interactions. Some happen in exotic lands among exotic creatures that only a handful of people may know about. But others could be happening in your own backyard.

In the dry, sandy, open woodlands of Delaware lives a wonderful member of the bean family Fabaceae; the sundial- or wild lupine (*Lupinus perennis*). This plant has some very interesting insect companions. Often seen flitting around this plant is a sprightly little butterfly called the Frosted Elfin (*Incasitairus*). But it’s not the adults that tend to this plant, it’s the larvae, or caterpillars. *L. perennis* is a host plant for this species of butterfly. Lupines do not possess nectar glands, so the butterfly adults don’t use them as a food source. Instead, they lay eggs on the underside of the leaves and when they hatch, the caterpillars spend the first stage of their lives nibbling away on the leaves. This relationship is a common one among butterflies and plants, and many people take advantage of this situation when planting a butterfly garden. One of the best ways to attract butterflies is to offer them the two things they need most to live and proliferate: food (food plants) and a place for their young (host plants).

Since the Frosted Elfin only uses this lupine as a host plant, pollination is left up to the bumblebees. The flower of this species is typical of the family, in that it consists of an erect standard petal, two lateral wing petals and two lower petals that are fused on the inner margin to form a keel. In the keel lies the stamens that rest against the lower portion of the pistil. The stigma catches pollen by a unique method. When the lower part of the flower is pushed down, the stamens are thrust forward and out of the keel in a piston-like action and they strike the stigma. Researchers have found that the only insects heavy enough to trigger this piston action are bumblebees. This action results in self-pollination and the deposition of pollen grains on the forehead of the bees, which they then carry off to another plant to achieve cross-pollination.

***Eric Zuelke***

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**Resources and Reviews**

I recently checked a book out of the new Bear Public Library that would be an outstanding reference book for anyone interested in native plants. The book is titled "Easy Care Native Plants — A Guide to Selecting and Using Beautiful American Flowers, Shrubs, and Trees in Gardens and Landscapes" and is authored by Patricia A. Taylor. There are twelve chapters in the book. They deal with the historical perspective, various approaches to design, reviews of public and private gardens and individual chapters on trees; shrubs; groundcovers and wall climbers; bulbs, corms and tubers, annuals and biennials; ferns and grasses; and perennials. The book is useful and easy to read. I particularly enjoyed the sections on the real life stories involving the use of native plants. If you try to order from a bookstore the ISBN # is 0-8050-3861-2.

Another interesting book to the average homeowner wanting to increase their use of native plants is a book from Sally Roth titled "Natural Landscaping — Gardening with Nature to Create a Backyard Paradise." The book deals with general landscaping ideas: creating meadow and prairie gardens; creating woodland and shade gardens and creating water and bog gardens. There are also chapters devoted to attracting birds and butterflies to the garden along with adding special features and gardening basics.

Another good book is "Landscaping with Native Trees" by Guy Sternberg and Jim Wilson. The book gives a comprehensive look at the world of native tree species for the eastern half of the United States with good descriptions and photographs.

There is an interesting article about the native plants across North America in the March/April edition of "The American Gardener" magazine. This is a publication of the American Horticultural Society. The article covers various plant communities in the Rockies and Southwest as well as the eastern half of the United States. The magazine should be available on magazine racks at various bookstores. I picked up my copy at the Newark Newsstand and I have also seen it in Borders Books.

For those looking for sources of native plants for projects, the following companies specialize in growing and selling native plants:

- Octoraro Native Plant Nursery in Kirkwood, PA just west of Oxford. You can check out their new website after April 15th at www.OCTORARO.com. Their phone number is 717-529-4099. The email address is octoraro@epix.net.
NATIVE PLANT COMMUNITY HIGHLIGHT
Sea Rocket Sparse Herbaceous Community
*Cakile edentula* Sparse Herbaceous Community

Introduction
This sparsely vegetated community occurs at the interface between the beach and the primary dunes in a zone referred to as the foredune. In Delaware it occurs as a discontinuous and narrow band along the lower portion of the Delaware Bay and along the Atlantic Ocean from Cape Henlopen to Fenwick Island. The community’s overall distribution is from Maine to North Carolina. It is a dynamic community subject to harsh stresses from aeolian processes (i.e., disturbance from wind and wave action, salt spray, and sand deposition and removal due to overwash and blowouts). It is also profoundly affected by human activities that include trampling from pedestrian and vehicular traffic, construction of snow-fencing, bulldozing of sand, and beach replenishment. The landscape position and the presence of sea rocket, *Cakile edentula*, best defines and characterizes this community.

Community structure/composition
As mentioned previously, *Cakile edentula* is the diagnostic and defining species for this community. The community, in a narrow (usually less than several meters in width) and discontinuous band, is sparsely vegetated with widely spaced plants among a greater percentage of bare sand, detritus, and scattered shell remains. The low-growing (often prostrate) plants are well-adapted to this harsh environment and are comprised of annuals and biennials almost exclusively. While no species is dominant, sea rocket has been chosen to name this community because it is a conspicuous component of this foredune community throughout the community’s range. Some typical associates in this community include *Cenchrus tribuloides* (sand-bur), *Salsola kali* (saltwort), *Mollugo verticillata* (carpetweed), *Atriplex arenaria* (seabeach orach), *Euphorbia polygona* (seaside spurge), *Triplasis purpurea* (sand grass), *Ammophila breviligulata* (beach grass), *Solidago sempervirens* (seaside goldenrod), and *Panicum amarum* (beach panic grass), in addition to others. More than 90 percent of what would be defined as the beach-dune interface (the foredune) where this community is found is unvegetated substrates. This unvegetated surface is composed of coarse sands, the remains of marine organisms, other flotsam and scattered inorganic debris.

Comments
The federally threatened seabeach amaranth (*Amaranthus patulus*) occurs rarely in this community but is not presently known for Delaware. The seabeach amaranth was last collected in Delaware in the “Baltimore Hundred” (south of the Indian River Inlet) by Albert Commons in 1875.

Conservation status
In Delaware this is a rare natural community and of conservation concern. It has a Delaware Natural Heritage rank of S2 (typically, 6 to 10 occurrences throughout the state).

*Keith Clancy*

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**Natural Quotes**

*‘Hence, a traveler should be a botanist, for in all views plants form the chief embellishment.’*

Charles Darwin, 1836

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**Feature Article**

WHERE HAVE ALL OUR NATIVE WILDFLOWERS GONE?

Delaware, like much of the world, is in a biological crisis, one that is equally acute for plants and animals. This probably isn’t apparent to many citizens, especially those who only rarely experience a trip into nature, usually by visiting a national or state park. But, it is very apparent among the conservation community, and especially among the conservation biologists bent on learning all they can about biodiversity.

The growth and development of recent decades has resulted in unprecedented habitat loss. It is believed by many biologists that the loss of so much habitat on a global basis and in such a short period of time, has resulted in extinctions at a rate never before seen in the history of the world. Some of the world’s most eminent scientists refer to the present as the beginning of an “age of mass extinctions.”

While much of the attention to habitat and species losses has focused on the tropical rainforests, many of these same problems affect Delaware. One example is our native wildflowers. Not those that are seen on roadsides, abandoned farm fields and unmowed lawns. These are mostly aliens or exotics that were brought to this country from Europe and Asia by our ancestors and are now well established throughout the state.

The Delaware Natural Heritage Program, which is jointly administered by the Department of Natural Resources and Environmental Control and The Nature Conservancy (TNC), tracks rare plants, animals and natural communities and is compiling an atlas of the vascular plants of Delaware. It currently tallies 2,241 species; 1,700 of these are native species and 541 of these are exotic species.

When the list of exotic plants in Delaware was first compiled in 1997 there were 295 species. The 246 exotic species that were added in 1998 represent species documented in Delaware and noted in the literature. “I’m certain more will be added to the list,” says William McAvoy, the heritage program biologist who compiled the list. “Exotic species will continuously move into the state as weather patterns change and we continue to destroy and degrade our natural habitats.” Those already known to be established here represent nearly a quarter of all species in the state. If it’s any consolation, McAvoy says only 37 are truly aggressive and can be found replacing, or seriously encroaching upon, our native species in their natural habitats. But what a number those 37 are doing!

In contrast, there are 606 species (about 36 percent of the native flora) on the Natural Heritage Program’s priority rare
plant list, species considered so rare they are threatened by extinction (i.e., driven to local extinction). In fact, 211 (or about 12 percent of the native flora) already are believed to be extirpated in the state or, at best, missing-in-action (not seen in more than 15 years and formally ranked as historical). According to TNC, Delaware’s percentage of lost flora is one of the highest in the country.

The remaining 395 species (nearly 23 percent of the native flora) are considered to be extremely rare or very rare in the state and all may be susceptible to extirpation. There are 146 species known from only 6–20 populations, while 249 species are known from fewer than six locations. Of the latter, 75 are known from only one population; these are truly the most imperiled of the group.

The extirpated and MIA species have died-out for a host of reasons: loss of viable habitat, out-competed for resources by more aggressive exotic species, habitat changes (e.g., degradation from changes in water chemistry, salinity levels or light levels), disease, over-collecting, loss due to random events, or because they were always scarce and therefore more susceptible to dying-out. These reasons also apply to our rare species and factor into their overall rarity. McAvoy and other botanists usually discover a handful of these missing species each year. Likewise, they discover an occasional species previously unknown in Delaware. This underscores just how much we still don’t know about the plants and animals that share this land with us.

Fortunately for scientists, herbariums still house specimens that document the 211 missing species’ presence in Delaware. But they don’t document the demise of the last individual of each of those species. Let’s consider some of the beautiful and compelling wildflowers that are missing in action. There are eight species of orchids that have not been seen in many years. They go by such names as dragon-mouth orchid (Arctopus bulbusa), snowy orchid (Platanthera nivea), spreading pogonia (Cleistes divaricata), large purple-fringe orchid (Platanthera grandiflora), small purple-fringe orchid (Platanthera psycodes), spring coral-root (Corallorhiza wisteriana), shining ladies’-tresses (Spiranthes lucida), and grass-leaf ladies’-tresses (Spiranthes praecox). Lost ladies include the beautiful bog asphodel (Narthecium americanum), the distinctive false asphodel (Tofieldia racemosa), and the turkey-beard (Xerophyllum asphodeloides). The story of a lost umbel (a member of the parsley family), Canby’s dropwort (Oxypolis canbyi) is sad and particularly tragic. The dragon-mouth orchid was first noted in Delaware by the great naturalist Thomas Nuttall, who traveled through parts of Delaware and noted its presence in 1809 near Dagsboro. It was also found in McCrone’s Swamp near Farnhurst (now the State Hospital near I-95), somewhere near Millsboro, and along the margins of Hudson Pond where it was last collected in 1929. This species probably suffered from both over-collecting and habitat loss or degradation. Similar fates were experienced by the others. For example, the bog asphodel and false asphodel both seemed to share the same wetland site between Lewes and Rehoboth, the Wolfe and Holland lakes. This freshwater system changed to a salt marsh community after the Lewes-Rehoboth Canal was dug in the early part of the 20th century. The plants could not tolerate the salty conditions and died out. Both were gone from the state by 1940.

What happened to Canby’s dropwort is especially ironic. It was discovered by William Canby in a wet, boggy habitat east of Ellendale in 1867. It turned out to be new to science and was named after its discoverer. Between 1867 and 1899 he and fellow botanist Albert Commons made nearly 20 separate collections of this plant from the only population then known to exist. It has not been seen in Delaware since 1899. Did their over-enthusiasm lead to the plant’s extermination in Delaware? The likelihood is a good lesson to other collectors. Although the species was subsequently discovered in Georgia, North Carolina and Maryland, it is still rare throughout its range and is listed as an endangered species by the U.S. Fish and Wildlife Service.

Other colorful and interesting extirpated or MIAs include the sensitive joint-vetch (Aeschynomene virginica), a member of the pea family; the drooping trillium (Trillium flexipes); the pygmy-weed (Crassula aquatica); the climbing fumitory (Adlumia fungosa); the whorled milkweed (Aclepis verticillata), the sea-beach amaranth (Amaranthus pumilus), and Nuttall’s micranthemum (Micranthemum micranthemoide).

The sensitive joint-vetch, now a threatened species, was frequently seen along the shores of the Delaware River during the latter half of the 19th century. Canby first collected this plant in 1846 when he was only 15. Commons last collected this plant in 1899, also along the Delaware. Pollutants and increased levels of salinity probably wiped out the plant from Delaware soils. Increased salinity levels also must have played a role in the loss of Nuttall’s micranthemum, a plant that was found in the inter-tidal zone above brackish waters. This plant is not to be found anywhere else in the world and is presumed to be extinct.

Pollutants or intrinsic rarity may have been the downfall for the pygmy-weed, a plant once found along Brandywine Creek near Wilmington, though not collected there since 1867. The loss of our whorled milkweed is not too surprising, as this plant was restricted to rare serpentine habitat on the piedmont, much of which is now degraded or destroyed.

The state has lost more than 50 percent of its wetlands during the past 300 years and continues to lose wetlands today, though the current rate of loss per year has lessened dramatically. The direct loss of a wetland habitat results in the disappearance of species of plants and animals that lived there. With a 50 percent loss of wetlands, it’s easy to see how formerly common species could become rare and uncommon. Likewise, many of our extant wetlands, often with little or no buffers to them, become degraded and susceptible to exotic species invasions.

Unless there is a coordinated effort on the part of many state, local and federal agencies, as well as individuals to combat this growing problem, the degradation of our remaining habitats will continue unchecked and native wildflowers now common will become rare, and rare native wildflowers will continue to disappear.

Keith Clancy

This article is an excerpt from a longer feature article reprinted with permission. It first appeared in the Winter 1998, Vol. 7, No. 4 issue of Outdoor Delaware.
RESOURCES AND REVIEWS
Continued from page 2

- Pinelands Nursery, Inc. in Columbus, NJ. You can check out their website at www.pinelandsnursery.com. Their phone number is 800-667-2729 and the fax number is 609-298-8939.

- Arrowwood Nursery, Inc. in Williamstown, NJ. They are also a wholesale grower of native trees, shrubs and perennials. Their office number is 609-697-6045 and the fax number is 609-697-6050. The email address is NJPlants@AOL.com.

- Environmental Concern, Inc. in St. Michaels, Maryland. Their phone number is 410-745-9620 and the fax number is 410-745-3517.

- Sylva Native Nursery and Seed Company in New Freedom, PA. Their phone number is 717-227-0486 and the fax number is 717-227-0484.

- McCulley and Smith, Inc. of Newark, DE. They offer a variety of native plants from locally collected seed. Their phone number is 737-9335 and fax number is 737-9546. Check the online catalogue listing at www.delanet.com/~msplants or follow links on www.jcmeci.com.

- Ernst Conservation Seeds in Meadville, PA. They specialize in a wide variety of grass, shrub and perennial seed. Their phone number is 800-873-3221 and the fax number is 814-336-5191. You can check out their website at www.ernstseed.com.

Richard Mickowski, DNPS member and employee of the New Castle County Conservation District

LETTER FROM THE PRESIDENT
Continued from page 1

and educational field trips, among other activities.

Although the number of DNPS members is not quite as high as I would have liked after one year, the recent addition of several new members is very encouraging. Likewise, our 1999 goal of and strategy for expanding by at least 100 new members by the end of the year has me hopeful that this will be a great year for the DNPS and its membership.

An area which I hope will improve during the coming year is a greater membership participation in society activities. I realize that a lot more people would have participated in meetings and field trips if their schedules had not conflicted or if they knew the dates of events more than a week or two ahead of time. Another area in which we came up short was in the establishment of officers and committee chairs. I suppose, in large part because only a few members have regularly attended monthly meetings, it has been difficult to elect officers and establish committee chair persons. Our plans to hold elections this year has been delayed for a year because our nominating chair, Rick McCorkle, was unable to find enough individuals that wanted to or had the time to serve as officers. For anyone interested in conservation activities in Delaware related to native plant communities as enumerated in our mission statement, the opportunity to get involved and effect change beckons you. So think about serving as a committee chair or an officer.

I wish to express my deep appreciation to Doug Janiec for his excellent work in developing The Turk's Cap Newsletter and the DNPS web site, both time-consuming activities that Doug did with enthusiasm and expertise. I would also like to welcome aboard Eric Zuelke as the new editor for the Turk's Cap newsletter. While Eric has an interest in botany, his professional background is primarily in zoology, so he may be impinging a certain zoological bent to the newsletter (we'll have to keep close tabs on him!).

We have been rather slow in developing our by-laws, becoming incorporated and recognized as a non-profit organization. This should change quickly as we recently received an organizational development grant from the First State Resource, Conservation and Development (RCD) Office. Mr. William Bell, program manager for RCD is providing his expertise and advice in helping the DNPS become organized as a not-for-profit entity.

In recent months, several members of our sister organization, the Maryland Native Plant Society, have learned about our group and have become members. As a result of their interest in our group we have scheduled with the MNPS a joint field trip to Adkins Arboretum and have tentatively made plans for another joint field trip in September or October.

The first official action of the DNPS's conservation committee was a letter that we recently wrote in opposition to a proposed new road being discussed for Cape Henlopen State Park. This letter was sent to the Delaware Division of Parks and Recreation and EDAW (the consultants working on a master plan for the park), to the proponents of the road, regulatory agencies, our U. S. senators and representatives, the Governor's office, and the local media. An abridged form of the letter, but with all the essentials intact, was recently printed in the Delaware State News. I am hopeful that our actions will persuade those in charge to put an end to the consideration of this proposal that is misguided and environmentally destructive.

Early on in the DNPS's first year it was determined by the members that one of the highest priorities facing Delaware was the protection, conservation and restoration of its upland forests. Consequently, we are developing a strategy and related actions that we hope will be important in this effort. Specifically, we hope to initiate dialog with public land stewards that have large land holdings about expanding upland forests on their lands. If this is successful then I hope we can expand these discussions with private landowners.

What will 1999 bring for the DNPS? As spring has arrived in full flower I am confident that the DNPS will be in full flower as this year progresses. I am hopeful that our membership will increase, and that more members will take an active role in their society.

Let me conclude my thoughts by saying that I have immensely enjoyed my participation over the past year in the DNPS and hope that 1999 will be a great year for this organization and its members. Now get outside and enjoy the spring wildflowers!

Sincerely,

Keith Clancy
**Native Plant Highlight**

**Spring Piedmont Flora of the Coastal Plain**

The title may be confusing, but on the coastal plain physiographic province of Delaware there occurs an uncommon and unique habitat type called a "rich-woods pocket." This habitat type contains a flora more typical of the piedmont province of the state.

Soils of the coastal plain are typically very sandy, acidic, and often droughty, but soils of rich-woods pockets are loamy, near neutral and moist, which are soil conditions most common in the piedmont. These unusual coastal plain soils are likely the result of ancient marine deposits that have "sweetened" the soil over time.

Rich-woods pockets are variable in size, from only several square meters to several hectares. They are usually found on moderate upland slopes and flats adjacent to streams. Over time, the erosive force of streams likely help to expose marine deposits allowing for the colonization and establishment of plants that require special edaphic conditions, such as piedmont species.

Rich-woods pockets occur sporadically in all three counties of Delaware and just a few of the spring ephemerals that can be found blooming in these habitats include:

- **Aserum canadense** wild ginger
- **Cardamine concatenata** cut-leaf toothwort
- **Claytonia virginica** spring-beauty
- **Cryptotaenia canadensis** honewort
- **Erythronium americanum** trout-lily
- **Galearis spectabilis** showy orchis
- **Geranium maculatum** wild geranium
- **Hepatica nobilis var. obtusa** round-leaf hepatica
- **Orobanche virginica** pennywort
- **Osmorhiza longistylis** sweet cicely
- **Oxalis violacea** violet wood-sorrel
- **Phrynium leptostachya** lopsed
- **Podophyllum peltatum** mayapple
- **Sanguinaria canadensis** bloodroot
- **Thalictrum thalictroides** wind-flower
- **Uvularia perfoliata** perfoline bellwort
- **Uvularia sessilifolia** sessile-leaf bellwort

The list above are species that you are most likely to observe while walking in the woods of the piedmont province this spring, but on the coastal plain, these species can only be found growing in rich-woods pockets.

William A. McAvoi

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**Pick the Turk's Cap**

**To Lawn or Not to Lawn, That is the Question**

Q. What the &$@# am I going to do with my lawn this year?

A. Well, I'll try to answer this question as best I can, but first I would hazard to suggest an alternative to the lawn.

Americans are obsessed with their lawns and each year spend millions of dollars on lawn care products trying to either out-do their neighbors or fulfill some sort of misplaced fulfillment in creating the ultimate and perfectly manicured lawn. Well I propose an alternative to your lawn weed problems. Why not select a portion (small or large) of your lawn (say an area that teems with weeds), and take it out of lawn production? Instead of trying to reclaim this piece of turf with turf, start your own native successional system. Start with letting the native weeds in your plot grow. Try adding a few native grasses and some young shrubs or trees. Then let it go. Every year it will look a little different until eventually it will become a woodlot. Sounds neat, huh? Its low maintenance, attracts wildlife, and is educational to boot.

Excellent native tree species that can be used include white oak (Quercus alba), northern red oak (Q. rubra), willow oak (Q. phellos), southern red oak (Q. palustris), scarlet oak (Q. coccinea), black oak (Q. velutina), tulip tree (Liriodendron tulipifera), white ash (Fraxinus americana), mockernut hickory (Carya tomentosa), pignut hickory (C. glabra), beech (Fagus grandifolia), sassafras (Sassafras albidum), black cherry (Prunus serotina), persimmon (Diapysys virginiana), and sweet gum (Liquidambar styraciflua), among others. Attractive native shrubs that can be planted are southern arrowwood (Viburnum dentatum var. dentatum), serviceberry (Amelanchier canadensis), pawpaw (Asimina triloba), American hazelnut (Corylus americana), dangle-berry (Gaylussacia frondosa), pinxter flower (Rhododendron periclymenoides), spicebush (Lindera benzoin), mountain laurel (Kalmia latifolia), highbush blueberry (Vaccinium corymbosum), and deeberry (V. stamineum).

Locating appropriate species of herbs and having success in their establishment may be more difficult. But keep an eye out for such herbs as partridge berry (Mitchella repens), striped (spotted) wintergreen (Chimaphila maculata), common white heart-leaved aster (Aster divaricatus), moccasin-flower (Cupripedim acaule), may-apple (Podophyllum peltatum), bloodroot (Sanguinaria canadensis), rattlesnake plantain (Goodyera pubescens), sweet goldenrod (Solidago odora), wrinkle-leaved goldenrood (Solidago rugosa), and beech-drops (Epifagus virginiana).

For nearby sources of native plants try the Delaware Nature Society's annual native plant sale, May 1-2 at Ashland (call 302-239-2334 for details), Arrowood Nursery (609-875-4889), Brandywine Conservancy (610-388-2700), Pinelands Nursery (609-291-9486) and stay tune for a Delaware native plant nursery coming soon.

Alright, I did promise to give some pointers on lawn care, for all those still bent on maintaining the American obsession. Well, if you have lots of weeds and don't want to use chemicals (good for you), but it will be a little harder. To start, seed your lawn with a thick blade species. Make sure you cut your lawn each week, sometime twice a week in spring. Keep the lawn low, about three inches. Many weeds can't make it when kept this short. Those weeds that sprawl, like crabgrass, dandelion, plantains, etc., will probably need to be pulled-out by hand. This is a slow and tedious process that could take up to three years. Of course, an application of turf-builder plus the first year will speed-up the process, but extreme care must be used when using chemicals; used incorrectly they can cause significant environmental damage as well as health problems.

Continued on page 7
UPCOMING EVENTS

SATURDAY, 24 APRIL 1999 – DELAWARE NATIVE PLANT SOCIETY ANNUAL MEETING. BRANDYWINE CREEK STATE PARK. FOR MORE INFORMATION CALL 302.674.5187.

SATURDAY, 24 APRIL 1999 – UNIVERSITY OF DE BOTANIC GARDENS PLANT SALE. AT THE FISCHER GREENHOUSE FROM 9 AM TO 4 PM. CALL 302.831.2531 FOR MORE INFORMATION OR ON THE WEB AT HTTP://BLUEHEN.AGS.UDEL.EDU/UDBG/PLANTSALE/CATALOG.HTML.

SATURDAY 1 MAY AND SUNDAY 2 MAY 1999 – DELAWARE NATURE SOCIETY NATIVE PLANT SALE. FROM 10 AM TO 3 PM BOTH DAYS. THE DNPS WILL HAVE A BOOTH ON SATURDAY, SO COME OUT AND SEE US. ON THE WEB AT WWW.DCA.NET/NATURESOCIETY/INDEX.HTM.

SATURDAY, 5 JUNE 1999 – A JOINT FIELD TRIP WITH THE MARYLAND NATIVE PLANT SOCIETY. FROM 10 AM TO 4 PM AT THE ADKINS ARBORETUM, RIDGELY, MD. CALL 302.674.5187 OR 410.634.2847 FOR MORE INFORMATION.

SATURDAY 5 JUNE 1999 – THE NATURE CONSERVANCY VOLUNTEER WORK PARTY. INVASIVE SPECIES CONTROL (Rosa multiflora) AT THE EDWARD MCCABE PRESERVE, MILTON, FROM 9 AM TO 2 PM. CALL 302.369.4146 FOR MORE INFORMATION AND TO SIGN UP.


Pick the Turk’s Cap
Continued from page 6

Fall seeding of grass can be a noticeable help and can result in restoring grass where weeds once thrived. By seeding in the fall you give your grass an early start, however, the farther north you live (Piedmont versus Coastal Plain), the less return you can expect.

Pick the right kind of grass! Ideally, buy fresh seed, that has the right shade tolerance and looks. Try some drought tolerant grasses and cut down on your watering needs. Use high quality seed; don’t buy the cheapest grass seed on the market. As for fertilizers, use them only as needed. Have your soil tested and have a professional recommend what type of fertilizer and application rate is needed. For more helpful advice visit your local lawn and garden shop.

A list of recommended native trees and shrubs for Delaware is available from the DNPS (call 302-674-5187 to order).

Doug Janiec

Don’t Miss This Upcoming Event!
Our First Annual Meeting

The first annual meeting of the Delaware Native Plant Society will be held on Saturday, 24 April 1999, from 10:00 a.m.-4:00 p.m., at Brandywine Creek State Park. All are welcome, even if you are not yet a member! The morning activity (10 a.m.-noon) will include a native plant hike led by pre-eminent botanists Jack Holt and Janet Ebert (the Spring flora should be at its peak), followed by a pot-luck lunch/barbecue from noon-1:30 p.m. at one of the pavilions near the nature center (DNPS will supply the charcoal). At 1:30 p.m., stay for an enlightening talk by Mr. Carl Solberg on the impacts of tax ditches to habitat quality. A short business meeting (2:30-4:00) will conclude the days’ activities.

For more information call 302.674.5187 or for directions to the park call 302.577.3534 or 655.5740.

Illustrations

The seaside alder, bald cypress, and turf’s cap lily drawings were done by DNPS member Chris Bennett. More information about these drawings/plants in a future issue.

DNPS Website

As with this newsletter, the DNPS website continues to evolve and has undergone some very artful transformations recently. Several new sections have been added and the whole site has been rearranged. Check it out at www.delanet.com/~dnpswp.