

The Turk's Cap

THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY SUMMER 98

The TURK'S CAP??

This is the newsletter sponsored by the DNPS. The name was adopted from one of Delaware's more aesthetic native plants, the Turk's-cap Lilly (*Lilium superbum*). This newsletter will be distributed quarterly to provide seasonal information on native plant care, special events, DNPS articles, and answers to questions submitted to the editor. Send to the DNPS, c/o Douglas Janiec, 908 Pickett Lane, Newark, DE 19711.

HOW CAN I GET INVOLVED?

DNPS is open to everyone ranging from the novice to expert. One of the primary goals of the society is to involve as many individuals as possible. Our meetings are held on the third Tuesday of each month at 7:00, at the Aquatic Resource Education Center, Woodland Beach Wildlife Area, Rt. 9 (Hay Point Landing Road). The meeting location is subject to change. For directions or questions, call Keith Clancy at (302) 674-5187.

NATIVE PLANT HIGHLIGHT AMERICAN BITTERSWEET

American bittersweet (*Celastrus scandens* L., CELATRACEAE, staff-tree family) is a woody vine with a native distribution in North America that ranges from Canada south to Texas. Habitat for this plant includes thin woods, thickets, and the edge of woods and roadsides, preferring moist, rich soils. In Delaware, the American bittersweet has become a rare species and is known from only a few locations in the state. One reason for its rarity is likely due to the establishment and aggressive nature of the Oriental bittersweet (*C. orbiculatus* Thunb.), which can co-occur with the American bittersweet.

Oriental bittersweet is known for its colorful fruit, which persist into the winter and are used in floral arrangements. It was introduced into this country in the late 1800s from China and Japan where it is indigenous. Oriental bittersweet has escaped from cultivation and is now well established in natural areas from New England south to the Carolinas. Once established the bittersweet can displace native vegetation and disrupt interacting ecological processes. To correctly distinguish between the two species, flowers or fruit are needed. Flowers of the American bittersweet are found at the tips of branches and flowers of oriental bittersweet are found in the leaf axils. Before attempting control measures of Oriental bittersweet, be sure that it is correctly identified as the exotic and not the native.

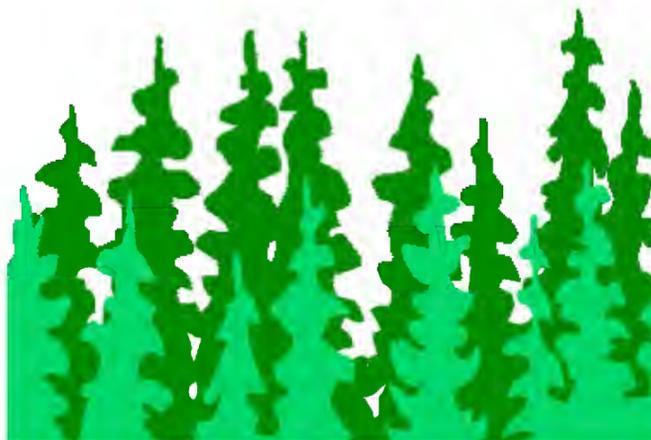
By William McAvoy, DE Natural Heritage Program

MILFORD NECK REFORESTATION

This past March and April, approximately 10,000 native trees and shrubs were planted on Delaware Wild Lands property in Milford Neck. The seedlings were planted in areas that were historically forested, but had been cleared and used for row crop production until its recent purchase by Delaware Wild Lands. Much of the land had become marginal crop land due to Northeast-driven high tides washing through the area which kept many low spots too wet to dependably yield successful crops.

Species planted included white oak (*Quercus alba*), swamp white oak (*Quercus bicolor*), pin oak (*Quercus palustris*), northern red oak (*Quercus rubra*), willow oak (*Quercus phellos*), black gum (*Nyssa sylvatica*), eastern red cedar (*Juniperus virginiana*), groundsel tree (*Baccharis halimifolia*) and marsh elder (*Iva frutescens*). Approximately 30 acres were planted, mostly in areas where reforestation would reduce forest fragmentation, increase forest interior, or increase the width of existing wildlife corridors. There were many volunteers, including students from the University of Delaware and Delaware Native Plant Society's own Keith Clancy, who helped to plant the overwhelming number of seedlings which were purchased by the U.S. Fish & Wildlife Service's Partners for Wildlife Program. Delaware Wild Lands Ecologist, Peter Martin, planted at least a couple thousand seedlings himself! In addition, Delaware Wild Lands contracted Garcia Forest Service to plant approximately half of the seedlings. Cost-sharing was also provided by the U.S. Department of Agriculture (USDA). All of the planted areas were enrolled in the USDA Conservation Reserve Program.

For more information about funding and technical assistance available through the Partners for Wildlife Program (now the Partners for Fish and Wildlife Program), contact Rick McCorkle at 302/653-9152, extension 17.



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 public at large on the protection, management, and restoration of native plant ecosystems. The DNPS encourages and advocates 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.

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LETTER TO THE EDITOR**EXOTIC ORGANISMS – AN EXECUTIVE ORDER FORGOTTEN**

In 1987, President Jimmy Carter issued Executive Order 11987, regarding "Exotic Organisms." According to this executive order, Exotic Species are "all species of plants and animals not naturally occurring, either presently or historically, in any ecosystem of the United States." This definition can be expanded more broadly to address ecoregions, such as the coastal plain of the eastern U.S. Under the Executive Order's definition, species such as autumn olive (*Elaeagnus umbellata*), multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), Japanese black pine (*Pinus thunbergiana*) and bicolor lespedeza (*Lespedeza bicolor*) would all be considered exotic species. All of these species were imported from Europe or Asia. Yet, all of these species are allowed to flourish across Delaware's landscape, and some of them are still deliberately planted and are among the many exotic species promoted by some government agencies (e.g., sawtooth oak (*Quercus acutissima*), red pine (*Pinus resinosa*) and white spruce (*Picea glauca*)).

Among other things, the executive order states that "executive (federal) agencies shall, to the extent permitted by law, restrict the introduction of exotic species into the natural ecosystems on lands and waters which they own...and shall encourage States, local governments, and private citizens to prevent the introduction of exotic species into natural ecosystems of the U.S."

When I raised this issue and mentioned the 1997 executive order at a meeting last year, I was told that "an executive order dies when the President leaves office," end of discussion! I recently had a discussion with another individual who is very proud of his Japanese honeysuckle hedgerow. When I expressed concern that it was spreading and would choke out and replace the native vegetation in the area, he said, "God put it here and he'll take care of the land." My response was, "no, God did not put it here. God put it in Asia, and man imported it to the U.S. where, because it didn't evolve here, it is able to out-compete the native vegetation."

I don't believe that representatives from the public and private sectors are ecologically insensitive, but they are unwittingly homogenizing the landscape; replacing native with exotic species that are gradually transforming the native. Unique, native plant communities are becoming increasingly rare. The Nature Conservancy considers the Eastern Deciduous Forest one of the most endangered ecosystems in America. Delaware supports part of the Eastern Deciduous Forest. Except for open water and tidal marshes, most of Delaware was historically dominated by deciduous forest. Wildlife species evolved along with these native plant communities.

When we replace our native plant communities with exotic species, we alter the entire ecosystem including its wildlife. Some popular game species benefit from the planting of certain exotic species. However, most wildlife species, and especially many of our rare non-game species, increase in rarity along with the native plant communities upon which they are dependent. We have lost more than 75% of our native forest cover. Even worse, we are allowing exotic species to take over or alter the plant and wildlife communities of our remaining forests. When possible, we must proactively control, and preferably eliminate, exotic species from our Delaware landscape, restore native plant communities, and lobby our local, state and, federal governments and local nurseries to use and promote Delaware's native plants.

By Rick McCorkle

ASIAN BEETLE THREATENS NATIVE TREES

A longhorn beetle is killing street trees in Brooklyn and Amityville, New York. Native to Japan, Korea, and southern China, *Anoplophora glabripennis* is a newcomer to North America. Longhorn beetles usually attack stressed, diseased, and dying trees. However, *A. glabripennis* seems to be an exception to this general rule and there is concern that this exotic insect will become a major pest in the United States.

In New York, beetles attack maple (*Acer*) trees including Norway, red, sugar, silver, and boxelder maple and sycamore maple. Horsechestnut (*Aesculus*), birch (*Betula*), aspen (*Populus*), and willow (*Salix*) are also attacked. Adults are shiny black with white blotches on their hardened outer wings. Their antennae are long with alternating black and white banding on each segment. Females lay eggs in oval crevices which they chew in the bark. Larvae bore into the tree and tunnel in the wood. Winding larval galleries weaken and may kill an otherwise healthy, vigorous tree. Upon emerging from a host tree, adults leave behind 3/8 to 1/2 inch diameter circular exit holes.

The USDA Animal and Plant Health Inspection Service (APHIS) and Forest Service, and New York City Parks Department are attempting to limit the spread of *A. glabripennis* until possible alternative control strategies are developed. Presently, the only effective method to limit spread is to cut infested trees and run all wood through a chipper. Total removal of mature trees from community forests or along streets is having an enormous impact in affected communities. Although the presence of this potentially destructive tree pest in Delaware has not yet been confirmed, it is imperative that we do not allow it to become established as it represents a significant threat to many of our native trees.

By Michael A. Valenti, DE Department of Agriculture Forest Service

DNPS WEB PAGE

The DNPS's webpage is up and running. It will be updated at least quarterly. The page will be able to be visited at the main page of

www.delanet.com/~wildlife.

Just click on the DNPS in the main page. This page was developed to be an information source. We would like your input so that we may continue to provide you with useful and interesting information on Delaware's native plants and plant communities. If there is any item you would like to have added, let us know. There are numerous links set in the page which directly tie you into the mail addresses of our many botanical experts.

**NATIVE PLANT COMMUNITY HIGHLIGHT:
PITCH PINE/BEACH HEATHER/PANIC GRASS
FOREST/WOODLAND COMMUNITY**

Pinus rigida/Hudsonia tomentosa/Dichantheium ovale var. addisonii
Forest/Woodland Community : a community profile

Introduction

Pitch pine is a widely distributed species that ranges from southern Maine to northeastern Georgia and comprises a number of different community types. These types range from the dwarf pitch pine plains found in New Jersey and New York to the ridge top pine barrens of the high Alleghenies. Oaks (especially scrub oak, *Quercus ilicifolia*, and blackjack oak, *Q. marilandica*) are typically associated with pitch pine.

It appears that pitch pine has significantly declined in, or is now absent from, Kent and New Castle Counties. The pitch pine/beach heather forest/woodland community is rare in Delaware, with less than six known sites. This community is best developed at Cape Henlopen State Park where it encompasses the largest intact and contiguous pitch pine forest community on the Delmarva Peninsula. Additionally, the pitch pine/beach heather/panic grass community contains an assemblage of state rare species and unique inclusion communities known as interdunal swales.

Community structure/composition

This community, characterized by an extremely sparse understory with an abundance of bare sand, is a relatively dynamic community influenced by shifting sands as a result of coastal aeolian processes; it occurs in somewhat sheltered backdunes. Dense shrub thickets may be present, but are usually restricted to slightly lower elevations, and are often arranged in a somewhat linear fashion, along narrow bands that run parallel to each other. These microhabitats are slightly lower in elevation and more mesic than adjacent higher land. Substantial micro-topography is present in the form of an undulating landscape of low, rolling sandy hills. In addition to the constant species, infrequent canopy associates for this community include Virginia pine (*Pinus virginiana*), eastern red cedar (*Juniperus virginiana*), and southern red oak (*Quercus falcata*). Subcanopy associates include the previous three species and sassafras (*Sassafras albidum*), blackjack oak (*Quercus marilandica*), post oak (*Q. stellata*), blackgum (*Nyssa sylvatica*), and black cherry (*Prunus serotina*). In the tall shrub stratum, common associates include wax myrtle (*Myrica cerifera*), bayberry (*M. pennsylvanica*), American holly (*Ilex opaca*), highbush blueberry (*Vaccinium corymbosum*), and less frequently shadbush (*Amelanchier canadensis*). Low shrubs that may be present include black huckleberry (*Gaylussacia baccata*), dangleberry (*G. frondosa*), lowbush blueberry (*Vaccinium pallidum*), deerberry (*V. stamineum*), golden heather (*Hudsonia ericoides*), and the low-growing cranberry (*V. macrocarpon*). The former four species are typically infrequent in this community. The golden heather occurs as scattered individuals on sands in partially-shaded habitats, while the latter species (*V. macrocarpon*) may be found, in abundance, either on dry sands overtopped by pines or more frequently in low, open wetland depressions (i.e., interdunal swales). Vines can be prominent and include roundleaf greenbrier (*Smilax rotundifolia*), glaucous greenbrier (*S. glauca*), grape (*Vitis aestivalis*), and poison-ivy (*Toxicodendron radicans*). The rare bull-greenbrier (*S. bona-nox*) is infrequently encountered.

Herbaceous taxa are sparse but include the nominant species in the community name (*Dichantheium ovale var. addisonii*), beach pinweed (*Lechea maritima*), sweet goldenrod (*Solidago odora*), winter green (*Chimaphila maculata*), pink lady's slipper (*Cypripedium acuale*), and bracken fern (*Pteridium aquilinum*). Lichens and

bryophytes may also be present, including, among lichens *Cladonia squamosa*, *C. strepsilis*, *C. caroliniana*, *Lepraria incana*, among others, as well as the moss *Leucobryum albidum*.

Community dynamics/succession

Fire has been shown to play an important role in the maintenance of pitch pine forests, and that without fire these areas will eventually succeed to oaks or other hardwoods. At present, it is unclear what role fire plays in maintaining Delaware's pitch pine forests; there is no written record of fire in this community in Delaware. However, fire-scarred pitch pine trunks are frequently encountered, suggesting that fire may be important in the long-term maintenance of the pitch pine community here, as it is in other states. In addition, there are personal recollections of fires in pitch pine forests of CHSP that happened during military maneuvers in the 1960s, but these are believed to have been human-caused. The pitch pine/beach heather forest/panic grass woodland community, with its sparse understory and shifting sands, may represent an early successional stage.

Distribution

The *Pinus rigida/Hudsonia tomentosa/Dichantheium ovale var. addisonii* Forest/Woodland Community has an extremely narrow distribution in Delaware, being restricted to coastal habitats of Sussex County where it is found from Cape Henlopen to Fenwick Island. It is best developed at Cape Henlopen State Park where it covers several hundred acres. South of Cape Henlopen it is typically only found in small clumps of individuals scattered on the dunes. Apparently, Delaware represents the southernmost occurrence for this species/community on the Atlantic Coastal Plain.

Rare species

An assemblage of rare species are present in this community, including *Cladonia cervicornis var. verticillata* (Hoffm.) Ahti (a fruticose lichen); *Cladonia squamosa* Hoff. (a fruticose lichen); *Hudsonia ericoides* L. (golden heather); *Sideroxylon lycioides* L. [*Bumelia lycioides* (L.) Pers.] (southern buckthorn); *Smilax bona-uox* L. (saw greenbrier); *Sporobolus clandestinus* (Biehler) A.S. Hitchc. (rough dropseed); *Mimartia caroliniana* (Walt.) Mattf. (pine-barren sandwort); *Arctostaphylos uva-ursi* (L.) Sprengel (bearberry); *Elaphe guttata guttata* (corn snake); *Ophiodrys aestivalis* (rough green snake); *Chordeiles minor* (common nighthawk); *Sitta pusilla* (brown-headed nuthatch). Many additional rare species occur within the inclusion interdunal swale communities and are not listed here.

By Keith Clancy, DE Natural Heritage Program

PICK THE TURK'S CAP

Q. I just moved into a new house and all of the numerous beds are overgrown. I'm thinking about tearing everything out and starting all over. Any suggestions?

A. Fight the urge. Beds gone-wild will often hold many unexpected surprises. I recommend tolerating the beds for the first year and see what emerges. Once you are sure what a particular plant is, then you can decide if you want to keep or remove it. If you aren't sure about a plant, let it grow until you can determine what it is. I also recommend considering transplanting if you like a plant but not its location.

I recently had a similar experience. To my surprise, not just the beds, but the yard, was full of many bulbs which appeared throughout the spring. I also had native rhododendron, cedar, dogwood, cherry, and hobblebush saplings appear. Some of these I kept, some I transplanted, and some I removed. Try to remember, you'll likely be there for a long time, so what's the hurry?

By Douglas Janiec, Wildlife Landscaping, Inc.

UPCOMING EVENTS

**7TH ANNUAL NATIVE PLANT SEMINAR
AND NATIVE PLANT SALE**
SATURDAY, AUGUST 29
DELAWARE
IRVINE NATURAL SCIENCE CENTER
STEVENSON, MARYLAND
410-484-2413

**MANAGING EXOTIC PLANTS IN THE EAST -
TOOLS OF THE TRADE**
SPONSOR: NATIONAL PARKS SERVICE,
USGS BIOLOGICAL RESOURCE DIVISION &
SEPTEMBER 16-18
LAUREL, MARYLAND
CONTACT: BOB HUSCHA (202) 282-1063

TREE SPREE 98
SATURDAY, OCTOBER 24
RED CLAY RESERVATION @ ASHLAND,

CONTACT: GARY SCHWETZ,
DELAWARE CENTER FOR HORTICULTURE
302-658-6265

**DELAWARE NATIVE PLANT SOCIETY
PLANT WALK AT IRON HILL PARK**
SATURDAY, JULY 25
PATUXENT WILDLIFE RESEARCH CENTER
IRON HILL PARK, 9:00 AM - TILL ??
CONTACT: KEITH CLANCY 302-674-5187

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

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