

# THE TURK'S CAP

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THE NEWSLETTER OF THE DELAWARE NATIVE PLANT SOCIETY

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## NATURAL QUOTES

"You can't be suspicious of a tree, or accuse a bird or a squirrel of subversion or challenge the ideology of a violet."

Hal Borland, *Sundial of the Seasons*,  
1964

## A SNOWY WHITE WELCOME TO OUR NEWEST MEMBERS

October through December

Matt Bair  
Jane Hileman  
Janet Williams  
Frederick Yarborough

## HOW CAN I GET INVOLVED?

The Delaware Native Plant Society is open to everyone ranging from the novice gardener to the professional botanist. One of the primary goals of the society is to involve as many individuals as possible.

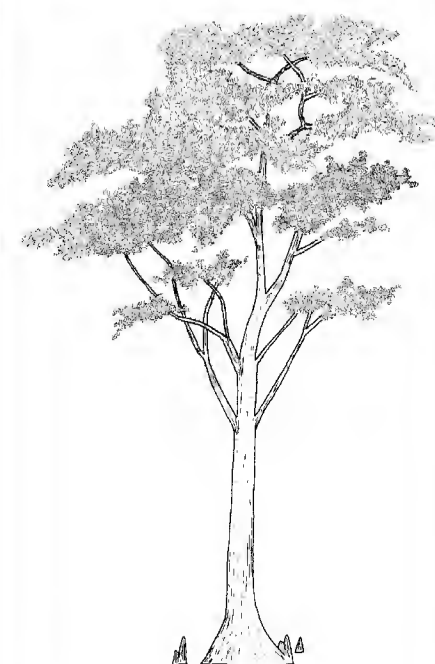
The DNPS is working on some significant projects at this time. We have completed four reforestation projects in the Prime Hook area, at Blackbird Creek in New Castle County and Cedar Creek in Sussex County where we have installed tree tubes around newly sprouted seedlings, and are performing annual management of the sites. Help is also needed at our native plant nursery at the St. Jones Reserve with the monitoring and watering of plants along with many other nursery activities.

For more information, visit our website at [www.delawarenativeplants.org](http://www.delawarenativeplants.org). Our very informative, up-to-date website has all the contact information for the Society, along with a section on native plants, volunteering, and links to other environmental and plant related organizations.



## The DNPS Vision

The purpose of the Delaware Native Plant Society (DNPS) is to participate in and encourage the preservation, conservation, restoration, and propagation of Delaware's native plants and plant communities. The Society provides information to government officials, business people, educators, and the general public on the protection, management, and restoration of native plant ecosystems. The DNPS encourages the use of native plants in the landscape by homeowners, businesses, and local and state governments through an on-going distribution of information and knowledge by various means that includes periodic publications, symposia, conferences, workshops, field trips, and a growing statewide membership organized by the DNPS.



## THOUGHTS FROM THE EDGE OF THE GARDEN

### WEBSITE UPDATE

On 7 April 2009 we added Google Analytics to the source code of our site to track a myriad of statistics about visitation. Here are the stats through 16 Jan 2010.

Number of total visits: 3,579

Number that were absolute unique visitors: 2,960 (82.7%)\*

New vs. returning visits: 2,949 new (82.4%), 630 return (17.6%)\*

Average time spent browsing: 2 min. 35 sec.

Average # of pages browsed: 4.6

Pages with most clicks: Nursery, Plant Talk, Publication, Event

Places: U.S.A. (48 states), 53 other countries/territories

How we were located:

64% from a search engine

23% from a referring site

14% from direct traffic

\*Absolute Unique Visitors counts visitors, whereas New vs. Returning counts visits.

### NEW SPECIES OF LICHEN DISCOVERED IN IBERIAN PENINSULA

*ScienceDaily*, Jan 11, 2010 -- Spanish scientists have described the lichen *Phylloblastia fortuita*, new to the Iberian Peninsula and to science. Another species from the same family, *Phylloblastia dispersa*, is also a new entry for Europe and is the first time it has been found outside the tropics.

Foliicolous lichens, symbiosis between fungi and algae, are organisms associated with tropical or sub-tropical climates, and their presence in environments such as the Iberian Peninsula, outside of the tropics, is associated with conditions of very stable ecological and environmental conditions

"We have identified three *Phylloblastia* lichens in the Iberian Peninsula, one of which is new to science (*Phylloblastia fortuita*), and we present a fourth species new to European flora, *Phylloblastia dispersa*," says Esteve Llop, main author and research at the Departamento de Biología Vegetal-Botánica [Department of Plant-Botanical Biology] of the University of Barcelona (UB).

Together, the scientists Esteve Llop and Antonio Gómez-Bolea analysed the lichen flora in a protected area near Barcelona. Although some species of lichen have already been recorded on

leaves in the North East of the Iberian Peninsula, this is the first time new species have been described.

### JURUPA HILLS OAK MAY BE CALIFORNIA'S OLDEST PLANT

*Los Angeles Times*, Dec 22, 2009 -- Nestled between two boulders on a low rise in the Jurupa Hills of Riverside County, a good 30 miles from its nearest living relative, lies the ultimate survivor -- an oak bush that researchers believe is 13,000 years old.

That's 1,000 years older than a previously identified Palm Springs creosote bush that was thought to be the oldest plant in California, 8,000 years older than bristlecone pines and 10,000 years older than the redwoods.

While it is one of the world's oldest living plants, it is probably not the oldest. That distinction may belong to a quaking aspen in Utah that is thought to be as old as 80,000 years or a holly in Tasmania that may be 43,000 years old.

But the Jurupa oak, researchers reported Tuesday in the online journal PLoS One, is unusual in that it is well out of its normal environment, which would be high in the mountains. It took seed at its current location near the end of the last Ice Age, when the climate was cooler and wetter. As its brethren died out because of climatic change, it persisted.

"If you planted a seedling there now, I doubt very much whether it would grow," said plant scientist Jeffrey Ross-Ibarra of UC Davis, lead author of the paper by UC Davis and UC Riverside scientists.

Because there are no other members of its species -- *Quercus palmeri* or Palmer's oak -- around to pollinate it, the shrub is infertile and grows clonally. When the trunk is destroyed by burning, new shoots pop up all around it from the roots. Over the millenniums, the Jurupa oak has spread until it is now more than 75 feet across. Genetic testing of individual stems shows that all are part of the same organism, Ross-Ibarra said.

The researchers estimated the plant's age by measuring growth rings and the rate of its spread. Termites have destroyed dead wood, precluding the use of radiocarbon-dating to get a more precise age.



## Resources & Reviews

### Woody plants in winter

Authored by Earl Lemley Core and Nelle P. Ammons. Now a classic text on the criteria for identifying trees and shrubs in winter as reliably as in other seasons of the year. Based on years of teaching, the authors present keys to recognize dormant woody plants by their buds and branches. The information details representative plants from habitats in the northeastern US and southeastern Canada. Illustrated with over 300 line drawings.

## Resources & Reviews

### *A Guide to Wildflowers in Winter: Herbaceous Plants of Northeastern North America*

Authored by Carol Levine, and Dick Rauh. This guide is intended to help both amateur naturalists and serious field botanists to identify non-woody plants - herbaceous weeds and wildflowers - as they are found in winter in the NE United States and E Canada.

#### **FEATURE ARTICLE**

#### **ADAPTIVE RESPONSES OF PLANTS TO RISING TEMPERATURES**

Plants are incredibly temperature sensitive and can perceive changes of as little as one degree Celsius. Now, a report in the January 8th issue of the journal *Cell*, a Cell Press publication, shows how they not only 'feel' the temperature rise, but also coordinate an appropriate response -- activating hundreds of genes and deactivating others; it turns out it's all about the way that their DNA is packaged.

The findings may help to explain how plants will respond in the face of climate change and offer scientists new leads in the quest to create crop plants better able to withstand high temperature stress, the researchers say.

"We've uncovered a master regulator of the entire temperature transcriptome," said Philip Wigge of John Innes Centre in the United Kingdom in reference to the thousands of genes that are differentially activated under warmer versus cooler conditions.

Using the model plant *Arabidopsis thaliana* the researchers show that a key ingredient for plants' temperature sensing ability is a specialized histone protein, dubbed H2A.Z, that wraps DNA into a more tightly packed structure known as a nucleosome. Wigge likens nucleosomes to compact balls of string. As temperatures rise, H2A.Z histones allow DNA to progressively unwrap, leading nucleosomes to loosen up, they show.

"When it gets warmer, the DNA unwraps," he said, which allows some genes to switch on and others to switch off. They aren't yet sure exactly how all that happens, but Wigge suspects the altered nucleosome structure gives access to sites on the DNA where activators of some genes can bind along with repressors of other genes.

"In addition to H2A.Z containing nucleosomes having more tightly wrapped DNA, our results suggest that the degree of unwrapping may also be responsive to temperature," the researchers wrote. "This result suggests a direct mechanism by which temperature may influence gene expression, since it has been shown that RNA Pol II [the enzyme

responsible for transcribing DNA into messenger RNA] does not actively invade nucleosomes, but waits for local unwrapping of DNA from nucleosomes before extending transcription. In this way, genes with a paused RNA Pol II will show increased transcription with greater temperature as local unwrapping is increased." The basic discovery could ultimately prove to have important implications for world food security, the researchers said.

As the number of people and affluence around the world continues to grow, "it is projected that world agriculture will have to increase yields by 70 to 100 percent in the next 100 years," Wigge said. "Under climate change it will be challenging simply to maintain present yields, let alone increase them." Crops such as wheat are particularly vulnerable to very hot and

He says the new understanding of plants' temperature sensitivity may prove to be critical for breeding more temperature-resistant crops. His team plans to explore this possibility by studying the role of these H2A.Z histones in a model plant that is more closely related to crops.

"We'd like to engineer a plant where we can control the histones in particular tissues such that it is selectively 'blind' to different temperatures," Wigge said. "Obviously you can't make a completely temperature-proof plant, but there is a lot of scope to develop crops that are more resilient to the high temperatures we are increasingly going to experience."

The effect of temperature and light intensity have been studied in relation to the greening of etiolated corn (*Zea mays* cv. Pioneer 309-B) seedlings. Chlorophyll accumulation is rapid at high temperature (28°) under all conditions of light intensity. At low temperature (16°), and particularly in combination with high light intensity (3000-4500 ft-c), the accumulation of both chlorophyll and carotene is inhibited. Low pigment content at 16° is not directly due to a block in the pigment synthesizing mechanism, but rather to the photodestruction of chlorophyll prior to its stabilization in the membrane

*Continued on page 5*

**GARDENING WITH NATIVE PLANTS****COCKSPUR HAWTHORN (*CRATAEGUS CRUS-GALLI*)****NATURAL HISTORY**

It's Sunday, December 21<sup>st</sup>, the first day of winter and one of my very favorite days of the year. Beginning today, the days will be getting longer and nights shorter with the promise of a spring to come and the flowers, gardening, return of summer migrating birds and all else that makes spring such a special time of year. But, hold on just a minute, there's still a harsh winter ahead and for the hardy birds and wildlife that choose to stay in Delaware and endure the winter months times will surely get tougher. The bounty of fall with its nutritious and readily available seeds, berries, fat insects and abundant cover is but a memory, and local birds will have to subsist by foraging far and wide for what food and cover that remains. Fortunately, there remain a number of native trees and scrubs that maintain their fruit and provide cover into the late fall and early winter months. Among these are included the hawthorns, small trees with dense foliage for cover, sharp spines for protection and an abundance of bright red fruits for sustenance. One such hawthorn is *Crataegus crus-galli*, or the Cockspur Hawthorn.

The Cockspur Hawthorn is one of only two of the eight native Delaware hawthorns that are found in both the piedmont and coastal plain. It is widely distributed along fencerows, hillsides, thickets, old fields and both lowland and upland openings, throughout the eastern United States and Canada from Quebec south to North Carolina and west to Kansas. As you might guess from both its botanical and common names the thorns of the Cockspur Hawthorn are particularly formidable - *crus*, resembling a leg, *galli*, chicken; resembling a chicken leg, a reference to the thorns which may bring to mind the spur on a chicken's leg, hence Cockspur Hawthorn. The numerous thorns range in length from 1.5 to 3 inches and occur all over the tree from trunk to branches to limbs. These thorns are actually abortive branches that develop from short shoots that sprout leaves. The shoots lose their leaves and become hardened woody thorns. But the thorns are not the only noteworthy characteristic of this valuable and highly propagated tree. The Cockspur Hawthorn is an excellent four-season accent ornamental tree! It is a small tree with dense well rounded branching, maturing at 15 feet tall by 20 feet wide and potentially reaching a height of 35 ft. under ideal conditions. In spring, white 2" wide inflorescences blanket the tree. These dense clusters of somewhat malodorous flowers are a magnet to bees, butterflies, and other insects that are attracted by the nectar. The white hawthorn blossom is the Missouri State Flower. Flowering is followed by development of clusters of pendulous 0.5" round fruits that are produced in masses and provide excellent color making this a very attractive ornamental tree in early winter. These fruits provide a much needed meal for fox sparrows, cedar waxwings,

wood ducks, wild turkeys, robins, bluebirds, thrushes, mockingbirds, thrashers, and other wintering birds and small mammals. The dense branching pattern and thicket forming habit of this hawthorn make it a particularly desirable nest and shelter tree for numerous species of birds. The Cockspur Hawthorn is also a larval host for a handful of butterflies. Fall color is often a showy multicolored array of red, purple, orange, and yellow waxy leaves. The branches are arranged in a pleasing layered habit that combined with the large thorns create a picturesque winter silhouette.


**WHERE TO GROW**

Common and widespread, the Cockspur Hawthorn has been planted ornamentally and as a hedge since colonial times. It has an attractive, wide spreading plant habit, glossy dark green foliage, showy flowers and attractive fruit providing a distinct horizontal accent in the landscape. Its horizontal spreading growth habit and bold texture is very distinctive and architecturally useful in the landscape, especially in winter. It may be planted as a focal point, specimen, deciduous screen, tall barrier hedge, seasonal accent, entranceway, group planting, and is excellent planted in a thicket as a winter wildlife shelter. The Cockspur Hawthorn grows well in full to partial sun and prefers a moist, well-drained soil. It is very urban tolerant, including adaptability to poor soils, various soil PHs, compacted soils, drought, heat, and winter salt spray.

**PROPAGATION AND CARE**

Propagation of *Crataegus crus-galli* is not the easiest, but is possible from seed. This species has one of the thickest of seed coatings and requires an acid treatment for germination. A 2 to 3 hour or longer acid treatment followed by a variable warm and 3 to 4 month cold period has been proven successful. Seed may be sown in the fall without acid treatment but germination will be sparse and will require 2 to 3 years.

**LORE**

Native Americans squeezed the ripe fruits then dried and stored them for winter cooking. Women drank a concoction made from the root for menstrual pain and the thorns were used for needles and awls. Hawthorns in general are edible, but not particularly desirable. They may be used to make apple jelly or steeped to make tea. Because of its size, the immensely tough wood has no commercial value. However it is prized by craftsmen for its use in tool handles and other small items. 

■ Bob Edelen, DNPS Member

**Resources & Reviews*****Winter guide to woody plants of wetlands and their borders: northeastern united states***

Authored by Ralph W. Tiner. This book is 91 pages long and published by the Institute for Wetland & Environmental Education & Research; Rev edition (2000).

## Resources & Reviews

### *Wildflowers and winter weeds*

Authored by Lauren Brown. This book will be a joy to those wood-walkers and strollers who have been puzzled by the skeletal remains of herbaceous plants that they see in winter.

### **FEATURE ARTICLE**

*Continued from page 3*

structure of the chloroplast lamellae. The parallel reduction in carotene content at high light intensity is probably a contributing factor, because of its role in protecting chlorophyll from photodestruction. The greater severity of photo-oxidation of chlorophyll at low temperature in corn when compared with wheat, appears to be due to a slower rate of protochlorophyllide synthesis and subsequent esterification. Thus in corn at 16° there is a prolongation of the photosensitive stage during chlorophyll synthesis. Photo-oxidation at 16° has also been shown to be a function of the incident light energy, with the photosynthetic pigments acting as receptors for their own destruction.

In comparison with the behavior of corn, wheat seedlings green rapidly at high light intensity at both 16° and 28°. This contrasting temperature response with respect to chlorophyll synthesis may underlie a fundamental difference in adaptation of these two species to growth in the temperate zones of the world.

Additionally, leaf temperature kinetics were studied as a function of the rate of change of ambient temperature ( $V_t$ ), light conditions, plant age, and genotypic and species diversity for *Zea mays*, *Cucumis sativus*, *Lycopersicon esculentum*, *Phaseolus vulgaris*, *Beta vulgaris*, *Cucurbita pepo* and *Raphanus sativus*. Ambient temperature was varied from 26 to 60°C at rates from 0.5 to 8°C/min. Leaf-air temperature differences (LATD) were registered with differential copper-constantan thermocouples. As the ambient temperature rose LATD increased because stomata had been closed in darkness. Still in the darkness, at some critical ambient temperature stomata opened and the leaf temperature reduced dramatically as result of stomatal transpiration. The critical temperature is strongly dependent upon  $V_t$ . Simple equations for the calculation of a threshold of plant temperature sensitivity and of a time constant for stomatal signal transduction have been obtained. These parameters show a high correlation with plant

heat tolerance both in genotypic and species aspects. This is consistent with the idea that temporal organization of plant regulatory systems plays a leading role in evolution and in adaptation to extreme environmental conditions. Both characteristics measured tend to change with plant age. It is concluded that the measurement of leaf temperature kinetics is a very convenient procedure for estimating plant adaptive ability to high temperatures. 🌿

### **Sources**

- 1) <http://www.sciencedaily.com/releases/2010/01/100107132543.htm>
- 2) <http://www.plantphysiol.org/cgi/content/abstract/42/12/1711>
- 3) <http://www.publish.csiro.au/paper/PP9960445.htm>



## ***OUT OF THE WILD & INTO THE KITCHEN***

Bayberry shrubs (*Morella* spp., synonym = *Myrica* spp.) produce seeds with a waxy coating that persist through the Winter and are great for making candles. Here's some descriptions and recipes for making bayberry candles.

The berries of both American bayberry when boiled in water, produce myrtle wax, which is composed of stearic, palmitic, myristic, and oleaic acids. This is used in making bayberry-scented soaps and bayberry candles, which are fragrant, more brittle than bees' wax candles, and are virtually smokeless. Four pounds of berries produce approximately one pound of wax. Other estimates say that about 15 pounds of these berries are needed to make one pound of wax. The wax is made by boiling the berries and then skimming the top layer of fatty pulp that rises to the top of the boiling pot.

When making bayberry candles, be sure to keep the candle small, like the size of a tea-light or votive. Bayberry tapers can still be made at home by dipping a cotton wick into liquid bayberry wax. To do this, the wick must be slowly dipped and taken out of the wax for a few seconds before dipping it back into the wax. This will allow the wax to cool just enough to stay on the previous layer of wax and the candle will get slightly larger with each dipping. Making jar candles is really not a good idea, unless you have a LOT of practice! Bayberry wax can be a bit more brittle, and burns differently than most candles people are used to.

These candles are dripless and their flame is brighter than any other. Bayberry candles can be made in commercial candle molds or you can make little floating candles in walnut shells. These little walnut boats can be placed in a bowl of water and will glow for over an hour.

Bayberry wax is thicker than other types of wax, and it has a different appearance than other waxes. The wax itself is a greenish color that gives bayberry wax candles an unmistakable look that requires no color to be added to the wax. Bayberry wax also needs no candle fragrance added because it has its own sweet scent.

### **Materials:**

- ◆ Large aluminum pot
- ◆ 2 large coffee cans, smaller can such as a soda can
- ◆ Paper towel
- ◆ A grocery box full of bayberries with leaves and twigs removed
- ◆ Bag of walnuts (or candle molds)
- ◆ Candlewick
- ◆ A pan or cookie tin filled with a layer of sand

### **Instructions:**

1. Pick out as many leaves, twigs and other debris as possible and pour the berries into the pot.
2. Fill the pot with water so it covers the berries by an inch or two. Bring the water to a boil and let it bubble for five or six minutes. Then, let this cool to room temperature or leave to cool overnight. The wax will separate from the berries and float to the top.
3. When the wax is cool, lift it off the top of the water and break into pieces that will fit into the coffee can. Throw away the remains in the pot. The wax may still hold dirt and debris which must be sifted out before making the candles.
4. Place the coffee can filled with wax in a pan of water and heat on the stove at a low temperature.
5. As the chunks of wax melt down in the can you can continue to add more chunks. When the wax is melted it will have all the debris floating in it.
6. Place a piece of paper towel over the top of another empty coffee can so the toweling is slightly depressed into the can. Leave enough towel hanging over the edge so you can hold it against the outside of the can while pouring the hot wax through the filter. Pour the wax a little at a time through the paper towel. Since the wax is cooling and solidifying as you do this, reheat the wax in the pouring can every so often. The hotter the wax, the quicker it will sift through the towel.
7. To open the walnuts: Place a walnut on a chopping block and, using a sharp knife, place the blade into the opening at the point of the walnut. Hold the nut with one hand, keeping your fingers high on either side. Bare down with the other hand on the handle.
8. Remove the meat from the inside of the shell. Open approximately 12 walnuts.
9. Fill a baking pan with sand and place the shells on the sand.
10. Dip a long wick into the hot wax and stretch it out to dry. This takes minutes.
11. Cut the wick into 1-1/4 inch pieces.
12. Bend one third of each wick sharply and dip this bent end into slightly cooled wax. The cool wax will be the consistency of gelatin and acts as the glue to hold the wick in the nutshell.
13. Place the waxed part of the wick so that it lays in the center of the bottom of the shell and press it down to hold in place. This will dry almost immediately and the other end will be standing straight out of the shell.
14. Reheat the wax in the coffee can.
15. Pour a little bit of wax from the stove into a smaller can for filling the nutshells. Fill the walnuts half way to avoid air bubbles. Let this cool and then fill each to the top. The color of the candles will be green.
16. Fill a bowl with water and float flower buds, berries, or leaves with the berry candles in nutshells.



# Upcoming Events

**19 JANUARY 2010**—DELAWARE NATIVE PLANT SOCIETY BI-MONTHLY MEETING FROM 7 TO 9 PM. THIS MONTHS MEETING WILL BE AT OUR KENT COUNTY LOCATION WHICH IS AT OUR KENT COUNTY MEETING LOCATION AT THE ST. JONES RESERVE. **\*NOTE\*** THIS IS A CHANGE OF VENUE FOR THIS MEETING. USUALLY WE HAVE OUR JANUARY MEETING IN SUSSEX, BUT WE ARE WORKING ON FINDING A NEW MEETING LOCATION IN SUSSEX. MORE INFORMATION AT THE DNPS WEBSITE AT [WWW.DELAWARENATIVEPLANTS.ORG](http://WWW.DELAWARENATIVEPLANTS.ORG). AND AS ALWAYS WE WILL HAVE FREE REFRESHMENTS AND SNACKS, ALONG WITH A SHORT BUSINESS MEETING.

**WINTER/SPRING 2010**—ADKINS ARBORETUM ECOLOGY FOR GARDENERS SERIES. REGISTRATION IS REQUIRED FOR EACH OF THE FOUR CLASSES THAT START IN FEBRUARY. MORE INFORMATION ON THE WEB AT [HTTP://WWW.ADKINSARBORETUM.ORG](http://WWW.ADKINSARBORETUM.ORG)

**WINTER 2010**—BOWMAN'S HILL WILDFLOWER PRESERVE'S 2010 WINTER LECTURE SERIES FEATURES A PRESENTATION BY A REGIONALLY RENOWNED EXPERT ON SUNDAY AFTERNOONS JANUARY 10 THROUGH FEBRUARY 28 FROM 2 TO 3 P.M. THIS YEAR'S SCHEDULE INCLUDES LECTURES ON A WIDE RANGE OF TOPICS RELATED TO ECOLOGICAL GARDENING AND SUSTAINABLE LAND PRACTICES. JOIN US FOR AN ENERGIZING AND ENLIGHTENING EXPERIENCE! FOR MORE INFORMATION CALL 215.862.2924, OR ON THE WEB AT [HTTP://WWW.BHWP.ORG](http://WWW.BHWP.ORG).

**SPRING 2010**—MT. CUBA CENTER NATVE SPRING WILDFLOWERS CERTIFICATE OF MERIT CLASS CO-SPONSORED BY MT. CUBA CENTER AND LONGWOOD GARDENS. THIS COURSE WILL PRESENT INFORMATION ON IDENTIFICATION AND CULTIVATION OF MANY HERBACEOUS PERENNIALS AND WOODY PLANTS, NATIVE TO OUR AREA. FOR MORE INFORMATION CALL 610.388.1000 EXT. 559, OR ON THE WEB AT [HTTP://WWW.MTCUBACENTER.ORG/NATIVESPRINGWILDFLOWERSCERT.HTML](http://WWW.MTCUBACENTER.ORG/NATIVESPRINGWILDFLOWERSCERT.HTML).

**DNPS BI-MONTHLY MEETINGS FOR 2010**—ARE CURRENTLY SCHEDULED FOR 19 JANUARY, 16 MARCH, 18 MAY, 20 JULY, 21 SEPTEMBER, 6 NOVEMBER (NOT A MEETING, BUT THE ANNUAL PLANT SALE) AND 16 NOVEMBER. ALL MEETINGS ARE ON THE THIRD TUESDAY OF EVERY OTHER MONTH AT 7 PM, UNLESS OTHERWISE NOTED. THE MEETING WILL BE HELD IN 3 LOCATIONS AROUND THE STATE. THE KENT COUNTY LOCATION IS AT THE ST. JONES RESERVE, THE NEW CASTLE COUNTY LOCATION IS AT THE NEW CASTLE COUNTY CONSERVATION DISTRICT OFFICE AT 2430 OLD COUNTY RD., NEWARK, DE, 19702, AND THE SUSSEX COUNTY LOCATION IS CHANGING SOON AND WE WILL BE GIVING DETAILS LATER. SEE OUR WEBSITE FOR MAPS AND DIRECTIONS TO EACH MEETING LOCATION. SEE OUT WEBSITE ([WWW.DELAWARENATIVEPLANTS.ORG](http://WWW.DELAWARENATIVEPLANTS.ORG)) FOR MORE DETAILS, AND FOR DETAILS ON UPCOMING FIELD TRIPS.

# Membership Application

## DELAWARE NATIVE PLANT SOCIETY

### Member Information

Name:

Business Name or Organization:

Address:

City and Zip Code:

Telephone (home/work):

E-mail address:

- Full-time Student \$10.00
- Individual \$15.00
- Family or Household \$18.00
- Contributing \$50.00
- Business \$100.00
- Lifetime \$500.00
- Donations are also welcome \$ \_\_\_\_\_

Membership benefits include:

- \* The DNPS quarterly newsletter, The Turk's Cap
- \* Native plant gardening and landscaping information
- \* Speakers, field trips, native plant nursery and sales

**Total Amount Enclosed: \$**

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

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

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