A CALL FOR ARTICLES

If you would like to write an article for The Turk's Cap, we would love to print it. With like minded individuals as an audience, The Turk’s Cap is a great venue for plant or habitat oriented writings.

We’ll take just about anything from gardening tips to book reviews to poetry. Of course, it has to be about native plants, or issues related to native plants; just a minor constraint. Your imagination is the real key.

Contact Eric Zuelke (ezuelke@juno.com), or Bill McAvoy at 302.376.5416 for more information.

A MUG OF HOT TEA WARMING YOUR FINGERTIPS WELCOME TO OUR NEWEST MEMBERS

October through December
Chet & Mary Ann Boggs
Lynda Dunham
Peter & Lois Gebrian
Sandra Otton

LETTER FROM THE PRESIDENT

I hope all of you enjoyed the holidays and hope your New Year has gotten off to a good start. Speaking of good starts, the Delaware Native Plant Society is off and flying, being propelled by the energy created from our annual plant sale in November. We had an excellent day, one of our best. We had many customers, sold lots of plants, and gained several new members. The results from that day are summarized here in the Newsletter and the numbers show that this event is very important to the Society. It not only adds to our treasury and provides a way to gain new members, but more importantly, it gives us a chance to promote the use of native plants and to educate on the value of our native flora. For the future, we have plans to improve the efficiency and productivity of the nursery, as well as plans to improve the plant sale itself. Without naming names, I’d like to offer deep and sincere thanks to all the members who volunteered their time the day of the plant sale, as well the days leading up to the plant sale. Without your

Continued on page 3
**LETTER FROM THE EDITOR**

**FORGING AHEAD**

I hope everyone had a good Christmas, and Happy New Year! I like this time of year because it’s a time of reflection of all that went well and all that went badly over the past year. We did the same as a group a few weeks ago when we had our meeting to go over the plant sale results. We had some great successes this year, and though we don’t feel that anything went poorly, we knew there was room for enhancement and improvement. The way we figured out what to improve was through the survey we sent out this past November and those results gave us some great ideas on how to give certain things we do a face lift and look at them from a different perspective. We really appreciate all who answered the survey. The results are in this issue and we hope the changes we make based on your comments make our Society even better, and enable more of you to be more involved.

The plant sale this year was our best yet, and I’ve got all the stats right here, along with our annual financial report as well; the Society did very well this year financially. I’d also like to heartily thanks those individuals who donated plants to the plant sale this year. Also right here are two very informative articles on river birch, and Christmas fern, and for those of you already thinking of this years garden and how to deal with those ever present, ever persistent, pesky deer, an informative article on how to keep the deer out!

One of our regular columnists will be making her last appearance in this issue. Gwendolyn Elliott, who has been writing book reviews for the Resources and Reviews column, will be stepping down from her post. I’ve enjoyed her book reviews and I hope everyone found them useful and informative. This column will live on however, and if anyone out there would like to contribute any kind of literature resources or book or magazine reviews, I’d love to hear from you.

I hope everyone enjoys the rest of winter (though it’s being quite mild this year so far), and if we ever get any snow, make sure you get out and have a good snow ball fight.

***Eric Zuelke, Editor***

**NATIVE PLANT TREKS**

**BOMBAY HOOK NATIONAL WILDLIFE REFUGE**

This issue natural area departs from the states park system to one of our two national wildlife refuges. The US Department of Interior began the national wildlife refuge system just over 100 years ago under the principal of providing refuges and breeding/resting/feeding grounds for migrating birds and other wildlife, and Bombay Hook National Wildlife Refuge (BHNWR) has been doing a good job of upholding this principal since its creation in March 1937 as a link in the chain of refuges that extends from Canada to the Gulf of Mexico.

The refuge started out as a small hunk of wetlands and forest and has grown over the years to 15,978 acres, approximately four fifths of which is tidal salt marsh. The remaining acreage is impounded fresh water pools, brushy and forested swamps, forested and grassy upland, and agricultural lands. The main focus of this refuge is as a breeding ground for birds, but in the process has preserved some very nice habitat for numerous species of Delaware’s native plants. It even has a small piedmont rich woods habitat that has quite a collection of unique plants that only exist in this type of habitat. Some of the interesting plants you may encounter in the rich woods habitats of BHNWR are Gaeasiris spectabilis (showy orchis), Lapeotea canadensis (wood nettle), Ophioglossum vulgatum (southern adder’s-tongue), and Passiflora lutea (yellow passion-flower) which is actually a vine and has a beautiful, yet subtle whitish-yellow flower. And in the very interesting fresh water marsh habitats you may be lucky enough to run across Limnobium spongia (American frog’s-bit).

The Friends of Bombay Hook group created a garden of native plants near the visitors center in 2000 and it is now managed by a group called The Garden Keepers. Some of the featured plants in their garden are Diospyros virginiana (persimmon), Aclepias tuberosa (butterfly weed), Impatiens capensis (jewelweed), Ilex verticillata (winterberry holly), and many ferns.

If you would like to learn more about the BHNWR visit their website at http://bombayhook.fws.gov/.

***Eric Zuelke, Editor***

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**EVENT HIGHLIGHT**

**4TH ANNUAL NATIVE PLANT SALE, SATURDAY, NOVEMBER 6**

The plant sale this year was a huge success; our best yet! We had excellent weather and some terrific food. I want to thank all of you who brought the spiced apple cider, apple cheese crumb bars, doughnuts, and banana bread.

We did $1859.00 in sales, sold 1081 plants (from an inventory of 1700 plants of 69 species), and had 96 customers. That’s more money than we’ve ever made, and more plants of more species than we’ve ever had! Our record inventory would not have been possible without the generous donations of plants and effort from three regional nurseries. Thanks!

Below is a table of data to show how our plant sales have grown from year to year for those of you who get a kick out of tables, and data analysis, and that kinda stuff.

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© Rick Mickowski
help, this event could never even get off the ground in the first place, but your assistance really enables it to go above and beyond and be truly successful.

In this issue you will find an article by Quentin Schlieder where he summarizes a member survey that he drafted and sent to all our members. Quentin analyzes the survey and presents the results. The response to the survey should help us to make the Society more responsive to its member's interests, and we thank Quentin for all his work with this effort.

I am excited about the direction the Society is taking and believe the New Year will prove to be successful. So let's take advantage of the energy generated from our plant sale to carry us forward and I hope to see you all at upcoming meetings and certainly at our annual meeting in May.

All the best in the New Year,
William McAvoy

4TH ANNUAL NATIVE PLANT SALE, SATURDAY, NOVEMBER 6
GARDENING WITH NATIVE PLANTS
RIVER BIRCH (BETULA NIGRA)

NATURAL HISTORY
As fall gives up its last late season flowers and winter grasps Delaware in its frigid grasp, look to the swamps and wetlands for the beauty of the river birch. This southernmost birch of the United States can be found alongside bodies of water or in occasionally flooded bottomlands in the Atlantic coastal states, southern states, the lower Midwest, eastern Great Plains, and lower Mississippi River valley. The beauty of the river birch lies in its bark, which is especially attractive in the winter after its leaves have fallen. The bark is smooth on very young trees, but as the river birch ages the bark begins to peel revealing hews of green to yellow to salmon to rust colors to brighten the often dull landscape of winter. Separate male and female flowers are borne on the same tree. Like other Birches, the dormant catkins (male flowers) of River Birch hang on the bare twigs in winter, and then begin to swell in late winter and early spring with the advent of warmer weather. The male catkins are formed near the end of the twig and can be 2 to 3 inches long. The female catkins emerging in early spring between the leaf axils are upright ¼ to ½ inch long and give way in spring to cone-like fruits 1 to 1½ inches long covered with hairy scales. These fruit contain many small nutlets that shed in late spring to early summer. The river birch is a fast growing (30 to 40 feet over a 20-year period) medium sized tree, attaining a height of 30 to 50 feet and diameter of 1 to 2 feet at maturity. The trunk generally divides early into several arching branches making great cover for nesting songbirds.

WHERE TO GROW
River birch is a very handsome tree for estates, parks, golf courses and any other large areas, and is widely planted throughout the United States both for its ornamental value and as a shade tree. In the wild, river birch is primarily a wetland plant, and prefers moist to wet, rich, deep acidic soils, however with proper care, it is adaptable to a wide variety of soil and light conditions. It prefers partial shade, but is very heat tolerant and will tolerate full sun quite well. Since the river birch thrives on sterile soils and has an extensive root system, it is quite attractive for erosion prevention.

PROPAGATION AND CARE
Propagation of the river birch can be accomplished either by seed or soft wood cuttings. Seeds are best sown as soon as they are ripe (early to mid June) in a bright location or cold frame. Seed should only be covered to a depth of the seed itself – any deeper will hinder germination. When they are large enough to handle, divide the seedlings out into individual pots and grow them in a cold frame for at least their first winter – preferably two. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. To propagate from cutting, timing is of the essence! Take cuttings 6 to 8 inches long from the current seasons growth, while still in active growth. Apply a rooting hormone, place in a peat sand mixture and mist heavily until frost. Leave the plants undisturbed through the first winter and plant out in early spring after danger of frost. Young trees should be kept thoroughly watered until well established and even well established trees will benefit from additional water during times of drought to avoid leaf drop. Although the river birch is resistant to the bronze birch borer which plagues the birches of colder climates, it is a favorite host plant to numerous butterfly and moth species, so young plants should be monitored in summer for excessive caterpillar presence.

LORE
A salve was made by boiling the buds until they were thick and pasty, then sulfur was added and the resulting salve was applied externally to skin sores and ringworm.

**** Bob Edelen, DNPS Member

Native Plant Highlight
CHRISTMAS FERN (POLYSTICHUM ACROSTICHOIDES)

While the Christmas holiday is still fresh in our minds, let’s discuss the Christmas fern, (Polystichum acrostichoides). The common name likely reflects the fact that the species is evergreen and still appears fresh throughout the winter, which includes the time of Christmas.

Christmas fern is a woodland species preferring moist, rich organic soils. The species is most common in the Piedmont province of Delaware, becoming rare further south as the soils become more acid and sandy. On the Coastal Plain in Delaware, Christmas fern is usually found in a habitat called “rich wood.” Here the soils are more organic and not as acidic as most Coastal Plain soils, as a result Christmas fern and other species typical of the Piedmont often become established.

Within the genus Polystichum, there are 180 species worldwide, with 15 occurring in North America. In Delaware, we have just the one species, P. acrostichoides. The overall distribution of Polystichum acrostichoides in North America is from Nova Scotia, south to Florida, west to Texas, and north to Minnesota.

The leaf morphology of Christmas fern can be variable and many forms have been recognized. In addition, hybrids

Continued on page 5
**Thoughts From The Edge Of The Garden**

**Membership survey results**

There was a good response to the survey mailed with the Autumn 2004 issue of *The Turk’s Cap* and the responses will be of significant benefit in planning future programs and making the Delaware Native Plant Society more responsive to its members. Out of 126 surveys sent out, we received 35 responses (28%).

It was reassuring that in general respondents to the survey were satisfied with the benefits they receive as members in the Society. They were especially enthusiastic about both *The Turk’s Cap Newsletter* and the Annual Plant Sale. While most respondents felt the website was adequate, a few commented that they would like to see it enhanced and updated on a regular basis.

With respect to their reasons for joining the Society, most replied that they joined to learn more about gardening with native plants and to receive the newsletter. There also was strong interest in restoring the State’s degrade habitats, to participate in bimonthly programs, occasion field trips and the Society’s Annual Plant Sale.

Under the “Activities” section of the survey, respondents expressed the strongest interest in programs about the flora of Delaware and field trips to see and experience native habitats in the State. Workshops on plant identification, native plant propagation and visits to both private and public gardens featuring native plants and programs about native plants of Eastern North America and how to grow them scored very high while there was moderate interest in habitat restoration and nursery maintenance. There was very little interest in social activities like a picnic or holiday party.

Members prefer meetings on late mornings and early afternoons on Saturdays followed by the same times on Sundays. There was no interest in meetings on either Monday or Friday evenings and little interest in other weekday evenings. Most members expressed a preference for activities in March, April, May, June, July, September, October, and November, with March, June, and November being favored most.

Kent County was the most popular venue for meetings followed by New Castle and the Sussex Counties, but it appears that many members have no preference if the activity is on the weekends in late morning or early afternoon. Apparently driving to evening meetings for a one hour program is not preferred over a more substantive activity on the weekend.

While several locations for meetings were offered, the Center at St. Jones Reserve where most meetings and the Annual Plant Sale are currently held is the most convenient for respondents.

Almost all respondents indicated that they feel they receive good value in exchange for the dues they pay and that the current level of benefits is adequate, however, there was interest in preference for members at the plant sale, a seed fund, an annual plant dividend at the Annual Meeting and the ability to pay dues for three years at a discount. At the December 9th Board Meeting it was decided to present these suggestions to the membership at the Annual Meeting on May 7, 2005 for their formal consideration.

The Survey reinforced the importance of a personal introduction to the Society through a friend, although newspaper articles, the membership brochure and the website also were cited as significant ways that members learned about the Society and eventually joined it.

There was an overwhelming response that members were willing to recommend membership in the Delaware Native Plant Society to a friend, but only one respondent was willing to share a name and address to which information about the Society could be sent.

There was a gratifying response that members were willing to grow plants to contribute to the plant sale at home, to participate in the maintenance of the nursery and to serve on a Committee. There also was some interest in presenting programs and writing an article for *The Turk’s Cap*. Contact information has been provided to Chairs of the various Committees and hopefully those who wished to assist the Society will be contacted at the appropriate time. Editors Note: I will soon be contacting those members individually who expressed interest in writing articles, working in the nursery, growing plants, and serving on committees. I look forward to working with each of you on specific projects.

Most of the programs and activities through July have been confirmed, but the responses to the survey will shape future program and activity proposals. I would like to thank all the members who took time to respond to the survey. If you have other suggestions, concerns or interests, please feel free to call me at 302.653.6449 or to email me at qcsjr@comcast.net. Members who wish to have a summary of the responses may request one by sending a postpaid reply envelope to Quentin Schlieder, 36 South Main Street, Smyrna DE 19977-1431. Hopefully, your responses will allow the Society to be more responsive to your interests and needs.

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**Native Plant Highlight**

Continued from page 4

are often encountered when two different species are present in the same habitat. The fronds, or leaves, are evergreen and leathery in texture, and are lanceolate in shape. The pinnae, or leaflets have a basal lobe on the upper side, and the margins of the pinnae are sharply serrate. The fronds of Christmas fern are dimorphic, meaning the fronds occur in two forms, as a sterile frond and a fertile frond. The fertile frond contains fuzzy, chestnut brown sori (structures that contain spore producing organs) that appear on the back of the pinnae.

Christmas fern is an attractive plant that is easy to cultivate in a woodland garden, or shady corner of your home.

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**William McAvoy, Acting President**
maybe you want to plant substitutions that are less attractive to the
deer.

The truth is, the most reliable way to keep deer out of
your garden is an 8 to 10 feet tall fence. Deer are remarkable
jumpers and will usually clear anything lower with relative
ease. Your fence can be constructed from any of a variety of
materials including chain link, electrical wire or tape, and plas-
tic mesh.

While deer are good at clearing high obstacles they are
reluctant to try jumping wide obstacles. That’s why they won’t
even attempt to jump a slanted wire fence—at least 36 inches
tall on the outside and slopes inward to a width of 69 inches—
will prove too daunting a barrier. [To find a dealer near you that
sells this type of fencing, contact Gallagher Power Fence, Inc.,
(800) 531-5908, or go to gallagherusa.com.]

Of course, fencing is expensive and usually not appeal-
ing for an ornamental garden. If you find fencing to be ei-
ther financially or aesthetically impractical, you can buy com-
mercially made deer repellents or try one or several of the fol-
lowing alternatives.

You might try spraying your plants with a foul smell-
ing and tasting repellent. You can make such a spray at home
using this formula, recommended by The Experts Book of Gar-
den Hints. In a blender, combine 2 or 3 eggs and 1 quart of wa-
ter. Then pour the mixture into a container with enough addi-
tional water to make 1 gallon. Sprayed on plants, the eggs in the
solution turn rotten and give off an aroma that’s mercifully sub-
tle to humans but repulsive enough to deer to make them look
elsewhere for a meal.

Soap ornaments are not exactly attractive, but studies
have consistently shown that soap repels deer, according to The
Experts Book of Garden Hints. In fact, bars of soap hung on
tree branches proved more effective than many commercial
chemical repellents. You don’t even have to unwrap the soap:
Field studies in New England apple orchards showed that soap
bars hung with their wrappers intact provide better protection
from deer than the soap or the wrappers alone.

Since deer do not like the smell of humans, you can try
gathering human hair (the local barber shop is a good source)
and hanging it in mesh bags from your trees or from stakes
around your garden. Some gardeners find this is enough to keep
deer at a safe distance.

The effectiveness of any deterrent comes down to how
hungry the deer are, notes Dean Pettis, a horticulture specialist
at the University of Minnesota and a Master Gardener. He sug-
uggests that you experiment with a variety of repellents to deter-
mine what works with the herd coming to your garden.

After Pettis tried numerous repellents in his own garden to no
avail, he resorted to the most...um...primitive method of protect-
ing his plants. He went out one night and marked his territory
the old fashioned way. This tactic did work for Pettis, but he
admits that this may cause other problems for gardeners who
live in close proximity to their neighbors. But maybe if a whole
neighborhood did this together, there’s no telling how the deer
would react...

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**Resources And Reviews**

**DELAWARE’S OUTSTANDING AREAS AND THEIR PRESERVATION**

by LORRAINE FLEMING

My book reviews of Delaware flora will end with a
1978 book on Delaware natural areas. This book describes key
elements which make the areas unique such as flora, geology,
or water. In one appendix there is a tabulation of profiles of
woody species in selected natural areas. This is helpful for
learning about what trees and shrubs are found in areas through-
out Delaware from Pea Patch Heronry, to the Norman G. Wil-
der Wildlife area, to Cape Henlopen. Another appendix tabu-
lates ferns and fern allies observed in New Castle County natu-
ral areas.

In a 2003 article in Outdoor Delaware, Lorraine Flem-
ing reflects on the fate of the 101 areas listed in her book. After
25 years she notes that four of the original natural areas con-
taining about 400 acres have been lost which is not a bad record
considering Delaware’s increase in population. The author also
notes that since 1978 “it is widely understood scientifically that
isolated, or fragmented, ecological units are not viable over the
long term.” Consequently, the original inventory of the 101
areas which contained about 55,000 acres has been expanded to
almost 100,000 acres. Today about half of this acreage is in
conservation ownership.

Delaware’s Outstanding Areas and Their Preservation
is out of print but is available in public libraries and from

[www.bookfinder.com.]

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**Thoughts From The Edge Of The Garden**

Continued from page 5

**Proposed 2005 Nursery Activities**

If you are interested in volunteering in the nursery this
year, here are some of the activities we have planned. We will
be having at least one work day per month and I’m going to try
and schedule them according to your responses on the member-
ship survey.

- Installation of green vinyl coated hardware cloth along the
  perimeter fence for animal control
- Construction of a PVC pipe watering system for each bed
- Design and construction of another shade house
- Mulching over small grassy areas to reduce the amount
  of grass to be mowed
- And lots and lots of potting up of new plants and mulching
  in the pots to reduce weeding needs

There will be many opportunities to get dirty this sea-
son, and if you want to come out, but can only come at a certain
time, just get a hold of me and I’ll schedule a work day or two
around your schedule.

Also, remember that volunteers can come anytime you
want to do basic tasks like watering and weeding; no one has to
be present. I just ask that everyone fills out the volunteer log
book in the greenhouse, so I can keep track of time spent and
what was done.

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**Eric Zuelke, Nursery Manager**
**UPCOMING EVENTS**

**FEBRUARY, MARCH, AND APRIL 2005** – Adkins Arboretum has a slew of very interesting programs and events going this winter and early spring (too many to list individually). For more details contact the arboretum at 410.634.2847, or on the web at www.adkinsarboretum.org.

**FEBRUARY, MARCH, AND APRIL 2005** – The Maryland Native Plant Society also has a slew of very interesting field trips this winter and early spring (too many to list individually). For more details contact the MNPS at fieldtrips@mdflora.org, or on the web at http://www.mdflora.org

**SATURDAY, 12 FEBRUARY 2005** – Propagating native plants from seed workshop. From 10 AM to 12 noon at the St. Jones Reserve. Growing native plants from seed is rewarding if you know the techniques which help to assure success. The workshop will be led by Quentin Schlieder, former Director of the Willowood Arboretum and a founding member of the Native Plant Society of New Jersey, as he explains technique like stratification and scarification and why they are required to achieve germination of some species. You’ll also plant seed of native plants to grow and enjoy at home. Pre-registration is required and is limited to 20. Phone 302.653.6449 to register.

**TUESDAY, 15 MARCH 2005** – DNPS bimonthly meeting and Program on the lost plants of Delaware. William McAvoY, President of the Delaware Native Plant Society, and State Botanist with the Delaware Natural Heritage Program will discuss the native plants which once grew in Delaware and are now lost. It’s the Ides of March, what could be more appropriate!

**SATURDAY, 16 APRIL 2005** – This Dover area field trip from 10 AM to 2 PM to The Garden of Dr. James McClements, The Claude A. Phillips Herbarium at Delaware State University with Dr. Susan Yost, and Delaware State University’s Woodland Trail offers something for everyone from a beautiful and diverse private garden to one of the Nation’s greatest herbariums. Directions and additional information will be sent on request by e-mail at qcsjr@comcast.net or by phone at 302.653.6449.

**MAY 2005** – DE Native Plant Society annual meeting at Bombay Hook National Wildlife Refuge. We are currently in the planning phase of this year’s annual meeting where we will be having two excellent guest lecturers and elections for officers. The theme for this year’s annual meeting will be the hydrogeology and flora of the Delaware coastal plain. For more details contact DNPS at dnps@delawarenativeplants.org, 302.376.5416, or on the web at www.delawarenativeplants.org.

**DNPS Bi-monthly Meetings for 2005** – are currently scheduled the 3rd Tuesday of every other month. Our next meetings will be: 18 January, 15 March, Annual meeting in May (more details to come later), 19 July, 20 September, and 15 November. Meetings will take place (unless otherwise notified) at 7 PM at the St. Jones Reserve, 818 Kitts Hummock Rd. About 1 mile east of the rt. 9/113/Kitts Hummock Road interchange just at the southern edge of Dover Air Force Base. We plan to have guest speakers at each meeting (speakers and their topics will be announced at later dates). Check our website for additional details or email us at dnps@delawarenativeplants.org.
Membership Application

DELTAWARE 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 $_______

Total Amount Enclosed: $

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

DELTAWARE NATIVE PLANT SOCIETY
P.O. Box 369
DOVER, DELAWARE 19903

COMPLIMENTARY COPY