VNPS a cooperator in national plant conservation group

Early in 1994 representatives from a significant number of federal departments and agencies convened in Phoenix, Arizona to organize a concerted approach toward implementing the Endangered Species Act (ESA). The result of that workshop was a memorandum of understanding which has now (end of September 1994) been signed by the following agencies: Bureau of Reclamation, Bureau of Land Management, Minerals Management Service, Federal Aviation Administration, U.S. Coast Guard, Federal Highway Administration, USDA Forest Service, Fish and Wildlife Service, Bureau of Mines, Department of Defense, National Park Service, National Marine Fisheries Service, Environmental Protection Agency, and the U.S. Army Corps of Engineers.

The latest information to come to this writer indicated that the Department of Energy was still “expressing an interest” in joining. Private groups are being encouraged to join this effort as “cooperators.” The committee currently has seven individual members, all representatives of federal agencies. Only those members have a vote.

Organizations, whether federal agencies or private organizations, which subscribe to the provisions of the Memorandum of Understanding (MOU) may send representatives to

New coalition forming to combat invasive exotic threat

As members of the Virginia Native Plant Society know, invasive exotic species are a major threat to biodiversity. In Virginia and other parts of the East, our woodlands and wetlands are being transformed by kudzu, honeysuckle, porcelain-berry, garlic mustard and purple loosestrife.

Invasions of exotic plants threaten national parks, wilderness areas, state natural areas and private nature preserves. For example, in Shenandoah National Park, the tree-of-heaven (Ailanthus altissima) is replacing the native hardwoods and hemlocks where the canopy has been opened by the attack of such exotic insects as the gypsy moth and the hemlock woolly adelgid.

Control programs in Shenandoah and other preserves are vitally important; but they are costly and ultimately futile in the face of expanding numbers of invasive plants. Site management needs support from an effective national program intended to exclude new harmful introductions; eradicate new infestations; prevent the spread of established species to additional parts of the country; and contain or (eventually) eradicate widespread species which are destroying entire ecosystems.

Unfortunately, the Congressional Office of Technology Assessment has called the federal government’s efforts to counter the effects of invasive exotic species “a largely uncoordinated patchwork of laws, regulations, policies, and programs.” The $7 million spent by federal land-managing agencies on “weed-control” projects in 1994 fell far short of the

January 1995 brings you this special issue of the Bulletin. We are fortunate enough to have a surplus of excellent articles submitted to us, but the space available in the four regularly scheduled issues has been too small.

An additional focus is the Virginia Assembly which convenes in January.

Special VNPS Bulletin!
Once begun, the session flies! Bills are introduced, considered, changed, resubmitted to committees and submitted for vote. During this time, rapid response to your elected representatives is necessary.

The society is not changing its emphasis on education. Lobbying is not part of our regular program, but we want to give members information that pertains to native plants and habitats. Thus enabled, members can respond from their own perspectives. We hope our efforts keep members informed and yield positive results.
From the President

By the time you receive this special issue of the Bulletin, our state legislature will be back in session. It is very important that our membership be informed and up to date on any pending legislation that may affect native flora and habitat. VNPS is in the process of establishing a phone tree. This will undoubtedly prove to be a valuable communication tool.

I am very excited about the many community projects in which our members are involved. Many people have sent me information about projects which involve young students who hopefully will make up tomorrow's VNPS. Keep the good news coming!

In addition to sending in newspaper accounts of community projects and events, several chapters have mailed copies of their membership lists. This helps me learn more about our different members and where they live.

I have had the opportunity of calling on some chapters to provide speakers and slides for school classroom and club presentations. Your response to all requests has been fantastic and helps our society grow. This follows with what membership chair, Phoebe White, reported at the December VNPS Board of Director's meeting when she noted significant growth since last year.

In other news, VNPS is now a cooperator with the newly formed Federal Native Plant Conservation Committee. Cris Fleming, Director at large, has agreed to officially represent us with this group.

The Wildflower of the Year project will be especially exciting this year. Not only will brochures featuring Vernonia noveboracensis, ironweed, be available, but for the first time, a limited edition "Wildflower of the Year" T-shirt will be sold. Your purchase of this shirt will help increase the growth and visibility of our society.

Frank Coffey

Debt of Gratitude - Each of you who responded to the late autumn funds appeal for VNPS deserves special thanks for taking the time during exceptionally busy days to send your wonderful gifts to support the society's expanding programs. The gifts have helped us begin our new president's New Year with this special issue of the Bulletin. Several years ago, we wished it were possible to print this January issue in which we can highlight environmental legislative issues. Now your special year-end gifts have made it happen. We thank you.

Frank Coffey, President

Nicky Staunton, 2nd vice-president

VNPS launches new telephone tree

When many of you joined VNPS, you marked on the membership form that you had an interest in legislative issues. You are the special people who will be asked if you would participate in a telephone tree for the society -- mainly during the time when the Virginia Legislative Assembly meets.

The need for an effective communication system arises each year when the VNPS president is called by the Virginia environmental organizations in Richmond with information concerning environmental issues. The president could share the information with members by calling one person who would activate the telephone tree.

It is possible that you would have only one other fellow member to call. We envision that no one would have more than several calls a session.

During the rest of the year, there is a possibility of using the phone tree. However, again, you would be called upon infrequently.

If you have not been contacted regarding the VNPS Phone Tree and you would like to participate, please send word to Nicky Staunton by writing either the VNPS mail box or 8815 Fort Drive, Manassas, VA or calling 703-388-9803 in the evenings.

We hope you will want to share this new path for VNPS.

ISSUES TO WATCH

• The United States Fish and Wildlife Service has restricted access to False Cape State Park in Virginia Beach from November 1, 1994 to May 31, 1995. The restrictions eliminate walking and bicycling on all of the interior roads of Back Bay National Wildlife Refuge, forcing all public access to the state park to a difficult five mile (one way) hike on the beach. The USFWS claims that people on the limited access road are disturbing the refuge's waterfowl.

Federal restrictions would virtually eliminate bicycling and make hiking the state park difficult and dependent on the knowledge of tides and weather. For further information on this issue, contact Gary Waugh at the Department of Conservation and Recreation, 804-786-5045.

• The Federal Endangered Species Act is long overdue for re-authorization, a process which may create major changes in the act. The Virginia Native Plant Society has become a cooperator in a plant conservation group which will unify efforts in the protection of endangered plants. For related articles concerning the ESA and the plant conservation group, see pages 1 and 3 of this special issue of the Bulletin.

• Many members of the Virginia Native Plant Society have grown increasingly concerned over the spread of invasive alien plants. Various ways of combating this problem are being explored by the society. Education, through conferences and fact sheets is one method, while the formation of a coalition of national programs is another. For more information on the problem, see Bulletin articles on pages 1, 3 and 6.
Members of the Virginia Native Plant Society concerned about protection of rare or endangered plant species may wish to monitor closely activities at the national level. The Endangered Species Act is overdue for "reauthorization" -- a process in which Congress reviews the law and may make substantial changes in it. With the new Republican control of both houses of Congress, strong attacks on the act's very foundation are expected. Furthermore, funding for its implementation is likely to be cut significantly.

In the House of Representatives, jurisdiction over the Endangered Species Act will probably be shifted to the Committee on Public Lands and Resources, which will be chaired by Don Young of Alaska. Rep. Young has a rating of 0 from the League of Conservation Voters.

Funding for the federal endangered programs will be under the Appropriations Subcommittee on Interior and Related Agencies. This subcommittee should be chaired by Ralph Regula of Ohio, who has an LCV rating of 35, and is considered friendlier than Young. However, the chairman of the full Appropriations Committee will be Bob Livingston of Louisiana who is expected to be hostile. Furthermore, the Republicans' tax budget plans call for severe cuts in such discretionary programs as endangered species.

In the Senate, jurisdiction over the Endangered Species Act will remain in the hands of the Committee on Environment and Public Works. It is hoped that this committee will be chaired by long-time environmentalist leader John Chafee of Rhode Island. However, Alan Simpson of Wyoming is reported to be trying to chair the committee. Simpson generally opposes federal "interference" which limits the exploitation of public lands and natural resources. The chairman of the full Appropriations Committee will be Mark Hatfield of Oregon, who has no love for the act's provisions protecting the spotted owl.

Both Senate Majority Leader Bob Dole and his assistant, Trent Lott, sponsored the Shelby Bill to weaken the ESA in the 103rd Congress.

Faith Thompson Campbell
Director at large

-Committee-

(Continued from page 1)

meetings of the committee and participate in the open discussions.

Many of the lead conservation groups of the country have already joined as cooperators, and in early November the Virginia Native Plant Society's application for Cooperator status was approved.

The purpose of all of this is to unify the efforts of many different groups in a coordinated approach toward protecting and improving the status of endangered and threatened plants and those approaching the threatened stage (sensitive). The organizers "envisioned the creation of a public/private partnership to mobilize agencies, organizations, scientists, native plant societies, garden clubs, and amateur botanists throughout North America into a cohesive force to support local, national, and international habitat conservation efforts for plants." Consequently, the MOU includes the following statement:

"The purpose of this MOU is to establish a general framework for cooperation and participation among the Cooperators in the exercise of their responsibilities under the ESA. The Cooperators will work together-and with appropriate involvement of the public, states, Indian Tribal governments, and local governments--to achieve the common goal of conserving species listed as threatened or endangered under the ESA by protecting and managing their populations and the ecosystems upon which those populations depend."

It is hoped that the idea of "managing" is exercised with considerable caution. It will be interesting both to watch and to work in the effort on behalf of our threatened and endangered plants, though we suspect that our children will be in a better position to judge the results of our efforts.

Ted Scott
Conservation chair

- Coalition -

(Continued from page 1)

need. The National Park Service alone has identified $46 million in such projects, but has allocated about $1 million per year to this effort.

To increase the effectiveness of national programs, the Exotic Pest Plant councils of Florida, Tennessee, and the Pacific Northwest have formed a coalition. VNPS director at large, Faith Campbell, serves as the coalition's Governmental Liaison. The councils will seek more funds to combat exotic plant species, more equitable allocation of available funding to all sections of the country, and correction of the weaknesses which undermine the Federal Noxious Weed Act of 1974. Key to the success of this program is educating policy makers and the public about both the threat and the solutions.

The Virginia Native Plant Society has a national reputation for its leadership on the problem of invasive exotic plants. It is hoped that members will become active participants in campaigns to strengthen national "weed" control programs.

Faith Thompson Campbell
Director at large
Environmental lobby day
People interested in standing up for the environment in Virginia are invited to participate in a lobby day and rally in Richmond on January 16.
The day begins at St. Paul's Church parish hall at 9 a.m. Coffee and an "issues briefing" will begin at that time. At 10:30 a.m., the participants will be briefed by legislators.
At 11:30 a.m. there will be a Sierra Club rally near the Capitol and GA building. Edward E. Clark, Jr., president of the Wildlife Center of Virginia will speak on "What's at Stake? Only 25 years of Environmental Protection in Virginia!"
The legislature convenes at noon and can be observed from the house and senate galleries. At 1 p.m., small groups will meet with their legislators. These meetings must be arranged at least a week in advance.
If you have questions or need further assistance to participate in this special environmental day, come to the VCN offices in Old City Hall, Suite 410 or call 804-644-0283.

Virginia's spring ephemerals
Pat Baldwin, a talented photographer from the John Clayton Chapter will speak at the January meeting of the South Hampton Roads Chapter. The program, Sunday, January 22 from 3-5 p.m. will be at the Virginia Beach Central Library auditorium.

Environment Va. symposium
A two-day symposium on the state of the environment and pollution prevention in Virginia will be held at Cameron Hall, Virginia Military Institute in Lexington. The program, which is presented by the Virginia Department of Environmental Quality and VMI Research Laboratories, Inc., will be April 6-7.
The program is geared toward engineers, planners, attorneys, environmentalists, government officials, scientists, administrators, regulators, industry officials and interested citizens. Registration is $95 which includes two continental breakfasts, two buffet lunches and a copy of the proceedings. For more information, write: Environment Virginia '95, Civil and Environmental Engineering, Virginia Military Institute, Lexington, VA 24450 or fax 703-464-7618.

Environmental studies
The Northern Virginia Community College, Woodbridge Campus, offers a variety of environmental studies for professional development courses which may be of interest to members of the Virginia Native Plant Society. These courses are designed to provide both new and experienced environmental professionals with the opportunity to study and implement practical approaches to many of today's environmental issues, policies, regulations and procedures.
The following one and two-day courses will be offered in February and March: Property Transfer Assessments & Phase I Studies (February 10); Environmental Permitting Requirements (February 24); Proposal Writing for Environmental Professionals (March 22) and Bio-engineering Storm Water Management Retrofits (March 24 & 25).
For additional information or to register, call 703-878-5654/5770.

USDA courses
A number of natural history, horticulture and environmental studies courses are being offered as evening programs by the United States Department of Agriculture's graduate school from January 17 until April 3. The natural history courses are cosponsored by the Audubon Naturalist Society of the Central Atlantic States located at Woodend Sanctuary.
For more information, write: USDA Graduate School, Registrar's Office, Room 1101, 14th St. and Independence Ave., S.W., Washington, D.C. 20250 or call 202-690-4280.

Wildlife art show
The 20th annual Wildlife Art and Photography Show sponsored by the Fairfax County Park Authority and WGMS 103.5 FM, will be held March 11-12 from 10:30-5 p.m. each day. This year's show is at a new location, the R.E. Lee RECcenter at 6600 Telegraph Road in Alexandria. Admission is $1. There will be exhibits, sales and demonstrations by artists as well as family fun with art and nature activities. Call 703-941-1065 for more information.

Limited edition Ironweed T-Shirt being offered for sale
Beginning in March, the Virginia Native Plant Society's Wildflower of the Year will be available on a limited edition T-shirt.
These shirts are being prepared by High Peak Sports Wear, the company that prepared last year's VNPS shirt. The shirt front will contain a design depicting New York ironweed, Vernonia noveboracensis. "Virginia Native Plant Society" will be written above the flower and the words "Wildflower of the Year 1995" with its common and botanical names will be below. The 100 percent cotton T-shirts will only be available in ash gray, the color chosen to best enhance our flower of the year. Long and short sleeve shirts will be available in medium, large and extra large.
Members and friends may purchase shirts through a local chapter or from VNPS for $15.59 plus $2 shipping. Profits will once again be divided between the local chapters and the state organization. Please remember that this shirt will be a special edition item and the supply will be limited.
Shirts will be available for chapter representatives to pick up at the March 1995 Board of Directors meeting. All chapters are urged to take advantage of this fund-raising opportunity. This is a wonderful way for us to show our pride in VNPS and celebrate our beautiful Wildflower of the Year.
Plants undergo a host of changes in fall as they prepare for the inhospitable conditions that winter brings. The beautiful changes in leaf color of woody plants during autumn, followed by leaf fall, are outward signs of preparations plants undertake to withstand the severe cold and dry conditions of winter.

Cold tolerance has been most widely studied in woody plants because of their economic value. The importance of cold as a force that influences plant evolution is recognized when cold tolerance is compared among different species taken from northern and southern localities in North America. In one study, northern species including quaking aspen, white birch, and tamarack (American larch) tolerated severe cold up to -80°C (-112°F), while southeastern species including live oak and southern magnolia only survived temperatures down to -15°C (15°F).

Another dramatic illustration of the importance of cold tolerance is that when northern and southern populations of individual species are compared, plants from northern populations are more resistant to freezing than those from southern populations of sweet gum, sugar maple and northern red oak.

Cold can damage plants at the level of individual cells and this damage at the cellular level is eventually manifested in damage to whole plant parts including vegetative and flower buds, shoots, roots, and the tissues that contribute to trunk diameter growth in trees. There are two primary causes of damage to cells resulting from cold temperatures. The first is damage caused by ice crystals forming within cells that leads to disruption of the inner membranes of cytoplasm (matrix where many metabolic processes occur). The second cause of damage is dehydration which can result from physical processes that occur when plants use their normal means of coping with cold but are faced with extended periods of cold temperature.

The normal process whereby plant cells cope with freezing involves both physiological changes in sugars and proteins as well as formation of ice in the spaces between plant cells where crystal formation will not harm cell parts. Increases in sugar concentration and proteins within cells as winter approaches lower the freezing point of water so cells can tolerate lower temperatures before freezing takes place, but this change in sugar concentration is considered less important than processes leading to intercellular ice formation.

Water, following natural physical gradients, flows out of cells leading to intercellular ice formation and is beneficial to plants under most freezing conditions, since intercellular ices tend to leave cells unharmed. However, cellular dehydration takes place when excessive water moves out of cells to freeze in the intercellular spaces. The loss of water from within cells can damage molecular constituents of the cytoplasm leading to impairment or loss of cellular function. Ultimately, the accumulation of damage from impairment of function of many cells can lead to damage of whole plant parts.

The mysteries of plant tolerance to cold are the subjects of scrutiny for plant physiologists. Much is known about mechanisms whereby plants tolerate cold, but much remains to be understood. While all can observe the prominent outward changes in plants during autumn, invisible changes within cells of plants more fully prepare them to cope with harsh conditions of winter.


Chris Sacchi
Botany Chair
The Virginia Native Plant Society’s invasive alien plant conference, jointly organized and sponsored with the Virginia Department of Conservation and Recreation, was held as planned at Piedmont Virginia Community College October 28. Very few VNPS members attended which was no great surprise. It was assumed that members of the society are already aware of the problem.

This conference was an attempt to acquaint others--landscape architects, garden writers, horticulturists, resource managers such as park and other property managers, and nurserymen--with the problem created by overly aggressive alien plants. Individuals working in those fields filled the auditorium to its capacity. About 125 people came from New Jersey, Pennsylvania, Maryland, North Carolina and Alabama as well as Virginia.

The conference opened at 9:15 a.m. with a slide show depicting 22 vines, shrubs, trees and herbaceous plants that have strong invasive tendencies in Virginia. That was followed by presentations on six alien bush honeysuckles, the problem that Ailanthus (tree-of-heaven) is causing in Shenandoah National Park, and other parts of Virginia, what alien grasses are doing to our pastures and lawns, and the damage that purple loosestrife does in wetlands and wet meadows.

The lunch break was followed by a talk on landscaping with native plants and the beneficial consequences for the Chesapeake Bay, a review of the plants causing the most damage in our state parks and natural areas, and finally a summary and a reminder that there are thousands of beautiful alien plants which we use in our flower and vegetable gardens without any invasive problems. We hope people will avoid using this limited number of bad actors because of the damage they do when they destroy the habitats of our native plants. In their native lands these plants are controlled by insects and other factors not present in our natural areas.

The conference adjourned at 3 p.m. So far all reports indicate that the conference was a great success. The attendees seemed to be pleased as did the organizers who pointed to the quality of the speakers and good audience response.

Everyone who wanted them, and almost everyone did, left with a set of the 12 fact sheets on invasive alien plants published by DCR and VNPS (there are approximately another 10 being drafted). Overall, the conference did two things; it attracted people working in the professional fields that the organizers wanted to reach, and it clearly defined the problems we are experiencing from a selected number of the aliens. We have received a number of comments, even requests, that we hold another conference emphasizing how to best cope with or manage specific plants. We have not yet attempted to address that question.

Because of the cost of mailing a set of the fact sheets to every member, we are asking those members who are interested to send us a list of the fact sheets you want along with an appropriate size of SASE. For three sheets or fewer, please send a business size envelope with 32¢ postage on it; for more than three sheets, send a 6 x 9 inch envelope with 85¢ postage. All requests to VNPS, P.O. Box 844, Annandale, VA 22003.

Sheets currently available are: Purple loosestrife; Kudzu; Tree-of-heaven; Porcelain-berry; Autumn olive; Mile-a-minute; Bush honeysuckles; Garlic mustard; Japanese honeysuckle; Common reed; Asiatic sand sedge; List of Invasive Alien Plants of Virginia.

Ted Scott
Conservation chair

For your Library

Pioneering with Wildflowers by George D. Aiken (Alan C. Hood & Company, ISBN 0-911469-11-7) - This classic wildflower book by George Aiken is back in print as a 134-page paperback, with a new foreword and a completely revised index.

The book was first published by Aiken in 1933. As the proprietor of Aiken Nursery, the author wrote the book and offered it to his customers through his nursery catalog. Called a "pioneering book" by reviewers, the volume had its beginnings when the author began the propagation and culture of wildflowers and ferns in the 1920s and then was swamped with questions from wildflower enthusiasts.

Aiken eventually moved from the nursery business to politics. After serving as governor of Vermont, he served six terms in the United States Senate, from 1941 until 1975.

The book, newly illustrated by Marion Satterlee, can be ordered from Alan C. Hood & Co. 28 Birge Street, Brattleboro, VT 05301. The cost is $12.95 plus $2.50 shipping.

Bird finding in forty national forests and grasslands, a detailed guide produced cooperatively by the American Birding Association and the USDA Forest Service - This guide is the result of the work from nearly 200 people including forest service staff and volunteers from the American Birding Association. Together they identified the top 40 birding routes in Alaska, the Lower 48 states and Puerto Rico. Birding routes for walkers, hikers, cyclists and drivers have been thoroughly researched and field-checked for accuracy. Plant communities as well as other animal life are detailed for each site. The book can be purchased from: American Birding Association Sales, P.O. Box 6599, Colorado Springs, CO 80934. The cost is $12.95 plus $2 shipping.

Page 6
Wetlands publication

“The Virginia Wetlands Report,” a quarterly publication produced by the Wetlands Program at the Virginia Institute of Marine Science of the College of William and Mary is available without charge to those sending a written request. The publication offers a number of special sections including “Wondering about Wetlands,” where the staff answers specific questions concerning wetlands and related issues; “Natural Places to Visit,” and technical reports on “Wetland Flora.” To subscribe, send your written request to: Wetlands Program, Virginia Institute of Marine Science, P.O. Box 1346, Gloucester Point, VA 23062.

Bay Journal newspaper

The “Bay Journal” is a monthly (except mid-summer and mid-winter) newspaper published by the Alliance for the Chesapeake Bay, Inc., as a public education service of the state-federal Chesapeake Bay Program. The purpose of the journal is to inform the public about issues and events that affect the Chesapeake Bay, and to expose readers to ways they may help preserve and protect the nation’s largest estuary.

For a free subscription to the “Bay Journal,” send your name and address to: Alliance for the Chesapeake Bay, 6600 York Road, Suite 100, Baltimore, MD 21212.

Tallgrass Prairie Park

After over 20 years of lobbying efforts, the first step toward creating a tallgrass prairie park in Kansas has begun. The National Park Trust, with assistance from the National Parks and Conservation Association, has purchased a 10,894-acre ranch in the Flint Hills of Kansas.

Thriving on the ranch are nearly 200 kinds of birds, more than 30 species of mammals, and 17 varieties of flowers. The tract’s prairie grasses sometimes reach 10 feet in height. The ranch includes a 19th-century farm-house and one-room schoolhouse.

Plants good for the heart

Plant-based drugs used to treat diseases of the heart and circulatory system are the subject of special materials developed by the Endangered Species Coalition. The materials were released back in February for “Heart Month,” and are part of the Coalition’s work to help the public gain a better understanding of how obscure plant species can benefit people and justify biological diversity. The source plant, medicinal use, and history of eight drugs are briefly discussed in the list. If you would like a copy, send a SASE to: Eastern Native Plant Alliance, P.O. Box 6101, McLean, VA 22106.

Mile-a-Minute from Oregon

According to an article in the “New York Times,” the invasive exotic mile-a-minute weed, Polygonum perfoliatum, was first introduced to this country in Oregon, appearing in a ship’s ballast about 1890. The plant has disappeared from the west, but was also introduced in the east in Pennsylvania in the 1930s where it now advances at the rate of 6” a day.

Aspen education

Anybody who has ever made the fall trek to the Colorado mountains in search of “aspen gold” knows the state is aspen-rich. But how many know that aspen help create a remarkably complex and busy ecosystem containing hundreds of species? An aspen grove is richer in species than the meadows it borders.

The Colorado Native Plant Society has developed a program, “Life in an Aspen Grove,” which takes a close look at aspen trees, and the rich and varied habitat they create.

The program includes 80 color slides and a cassette tape or a 27-minute videotape. Both versions include a printed booklet. The slide/tape program is $48.02, while the videotape is $24.70 including postage and tax. To order, write: Aspen Program, Colorado Native Plant Society, P.O. Box 200, Fort Collins, CO 80522-0200.

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Nancy Sorrells, Editor
Barbara Stewart, Artist

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Next issue deadline is Feb. 10.
Blue Ridge member honored

Dr. Gwynn W. Ramsey, a member of the Blue Ridge Chapter, was one of six writers honored for a paper the team wrote on systematic botany. Ramsey, the senior author of the group, teamed up with Charles H. Leys, Robert A.S. Wright, Douglas A. Coleman, Aubrey O. Neas and Charles E. Stevens to produce the paper entitled: "Vascular Flora of the James River Gorge Watersheds in the Central Blue Ridge Mountains of Virginia." The article, which appeared in *Castanea*, earned the researchers the Richard and Minnie Windier Award.

Using standard systematic and floristic techniques over a period of 15 seasons of field work, the team documented 963 taxa representing 468 genera and 119 families from collections made in the 3,585 hectare research area. It was determined that this area of exceptional diversity contained about one third of the plant species found in Virginia, and over one third of the genera that occur in the Blue Ridge Mountain Physiographic Province. Eleven taxa were discovered in the James River Gorge which were localized, uncommon or rare in Virginia.

The Windler Award recognizes the best systematic botany paper published in *Castanea* the preceding year. The winners received framed certificates and Ramsey, as senior author, received a monetary award in recognition for his valued contribution to science.

John Clayton adds counties

Permission was recently given the John Clayton Chapter to annex the counties of Lancaster, Westmoreland, Northumberland and Richmond. Members of the chapter were already living in the additional counties.

Pocahontas to host meeting

The Pocahontas Chapter of the Virginia native Plant Society will host the 1995 annual meeting. A committee of Richard Moss, chairman, Louise Richards, John Hayden, Nancy Hugo and Marie Minor have already started planning next year's events.

Memorial tree planted

Members of the John Clayton Chapter gathered in late November to plant a tree in memory of Allen Schanck Roberts, son of Gale and Bill Roberts. Gale Roberts served as chapter president from 1991-1993. A silky camelia, *Stewartia malacodendron*, was planted on the bank of Crim Del Pond and a permanent engraved plaque was placed at the tree's base.

New property purchased

The John Clayton Chapter combined with the Audubon Society and the Friends of Dragon Run to purchase a 5.9 acre parcel of land at New Dragon Bridge in Mascot. The property will allow access from a state highway to Dragon Run. A plan is being designed by the Friends of Dragon Run for an Access Management Plan which will be in place in the spring of 1995.

Rhododendron clarification

The use of the phrase "easternmost distribution" in paragraph two of the November 1994 Bulletin article, "Five New Registry Sites," was an inference to the population of rosebay rhododendron at its easternmost known distribution at this latitude. That is, this shrub has not been found to naturally occur directly east of Campbell County (See Virginia Atlas). In the more northern Virginia counties, the rosebay does grow throughout the coastal plain to the bay. I regret that there may have been confusion to some readers.

Dorothy C. Bliss
Site Registry chair
Ironweed adds vibrant color to Virginia meadows

A plant of great beauty, New York ironweed, *Vernonia novaboracensis*, fills wet fields and stream sides with its vibrantly colored violet flowers from mid-summer to fall. Its great beauty and its widespread distribution throughout the Commonwealth make it an appropriate candidate for 1995 Wildflower of the Year. This plant is most frequently recognized by the common name New York ironweed, but is also referred to simply as ironweed. The scientific name for the genus, *Vernonia*, honors an English botanist, William Vernon, who collected plants in Maryland in the 17th century. The species name, *novaboracensis*, refers to the plant being "of New York." New York ironweed is an herbaceous species in a genus that consists of about 500 to 1000 species of herbs, climbers, sub-shrubs, shrubs and trees. Species of *Vernonia* are distributed around the world with representatives found in North and South America, Asia and Africa.

Ironweed is a member of the Composite family, also known as Asteraceae. Plants in this family can be recognized by their inflorescences, which appear to be a single flower, but in fact represent a collection of flowers merged into a single head. Familiar members of this family include sunflowers, daisies, black-eyed Susans, and dandelions.

Over much of its geographic range, New York ironweed can occur with other species in the same genus. Experts may be confused by the existence of hybrids that exhibit characteristics intermediate between those of individuals of the two different parent species. The production of hybrids may be noted when two different species within this genus occur together.

Three ironweed species can be found growing in Virginia. The problem of confusion in identifying an individual plant to species may be greater in the Midwest where as many as six species may be found.

"Conservation through Propagation" is theme of VNPS workshop

The Virginia Native Plant Society "Winter Workshop" is finally here. Make plans to attend "Conservation through Propagation" April 1 at Piedmont Community College in Charlottesville.

The VNPS Education and Conservation Chairs have produced an exciting schedule of events revolving around the theme of plant propagation. Conserving our native heritage by propagating plants to restock disturbed areas and to eliminate the demand for plants collected from the wild is the workshop focus. New techniques, which will be discussed at the seminar, now make it possible to grow many difficult species from seed.

Four topics are on the agenda, beginning at 10 a.m. and ending around 3 in the afternoon. Attendees at the free workshop should bring a bag lunch.

"Maintaining Genetic Diversity," a lecture by Dr. Christopher F. Sacchi, curator of the Orland E. White Arboretum at the University of Virginia's Blandy Farm and VNPS Botany Chair, will begin the day. Sacchi will review the import(See Workshop, page 8)
FROM THE PRESIDENT

The garden is an obvious interface between people and the rest of nature; its lessons reink humus and humans, Earth and Earthlings.

"Life, Education, and a Garden"
by Martin Ogle

This cold, icy and snowy weather we have had recently makes us long for warmer days and the opportunity to garden, and of course to explore new areas in search of new wildflowers. The above quote, taken from the "Arlington Environment," expresses the higher benefits and the importance of gardening.

Let us, as we begin to work in our "native" gardens, make plans to contribute generously to our chapter plant sales. This is perhaps our greatest opportunity to spread the word about native plants and the Virginia Native Plant Society.

We have had a good response to our January edition of the Bulletin. Many of our environmental concerns were cited in that issue. The significant accomplishments made possible by the Endangered Species Act are being threatened by our "new" Congress, state governments and some large organizations. There is an attempt being made to disable or seriously weaken environmental regulations through "takings," "unfunded mandate," "risk assessment," "wise use" and other such legislation.

The General Assembly is operating a hotline for constituents to express their views on legislation. Each day legislators are given a tally of the positions expressed from the received calls. The phone number is: 1-800-889-0229. Please call and express your views. Our natural world and environment need your support more than ever!

Frank Coffey

P.S. Your chapter representatives picked up their consignment of 25 Wildflower of the Year T-shirts at the March VNPS Board of Directors meeting. These shirts are really handsome and I know every member will want one. They are ash gray with an accurate depiction of our New York ironweed printed on the front. The shirts are available in both short and long sleeves in medium, large and extra large. The cost per shirt without shipping is $13.59 for the short sleeve and $15.68 for the long sleeve. If shirts are purchased through a chapter, then the chapter receives some of the profits. If you order through the VNPS, please add $2 for shipping. The same ironweed design will also be featured on new VNPS natural color canvas totebags. The cost is $12.54, plus $2 shipping. Chapter representatives will have a supply of the totebags. Remember, both the shirts and bags make great gifts.

Questions & Answers

Do you have questions regarding native plants? If you are seeking botanical or horticultural information or just wondering about a special wildflower viewing spot, you can write to VNPS and have your queries answered in this new column. Questions will be referred to one of the many experts we have on our board and in our general membership.

Fund-raising efforts are successful

VNPS members’ response to our first "End-of-Year" fund raising effort is appreciated. Members have turned a year-end appeal into a "Begin-the-Year" actuality with donations still arriving in Annandale.

The new year brought VNPS some initiatives which were enabled by these gifts thus serving VNPS members better.

Not only did several hundred members reply with their gifts, but many requested the invasive alien plants fact sheets for personal reference and to pass on to associates. Thank you for your loyal support!

Nicky Staunton
2nd Vice President

Robin Berries...

Though you read this VNPS Bulletin in March, it is an excellent time to reflect upon winter, as well as plans for the spring with native plants and...robins.

Mid-January, several hundred robins landed in trees on our city quarter-acre lot. That many robins so early in winter raised many questions: Are they from Canada? or the South? Is spring closer than we thought? Will they survive our harsh February and March? What will they eat (the earthworms must look like frozen chocolate sticks under our turf)? Now, as I write this in mid-February with our second recordable snowfall, our spring friends are here still. Groups of robins sit on top of mature catalpas, maples and oaks as snow falls this morning. Besides fretting about their survival, I remember their January gorging upon my 14 American holly trees and three Virginia junipers!

As any host of cherished visitors, I’m glad to have had some food for this flock to feed upon. Perhaps it will have helped some robin survive the unfriendly weather. It also reminds me to plan for next year. VNPS board member (See Robins, page 7)
New and noteworthy natives

Look for a new annual black-eyed Susan in nurseries and gardens this spring, *Rudbeckia hirta* 'Indian Summer,' an All-American Selection, has single and semi-double 6-9-inch golden flowers with dark centers. Plants are three to four feet tall and will bloom all summer.

An introduction from Mt. Cuba Center in Greenville, Delaware, is *Aster laevis* 'Bluebird.' Director Richard Lighty found the original plant in Connecticut several years ago. It grows 4 to 5 feet tall with several arching stems producing numerous 1-inch blue-violet flowers in September and October.

A bright yellow butterfly weed, *Asclepias tuberosa* 'Hello Yellow,' grows 24 to 30 inches tall and blooms in midsummer. It is available from Wayside Gardens.

At the 12th annual Perennial Plant Association Symposium last August, Kim Hawks of Niche Gardens, Chapel Hill, introduced two noteworthy natives. *Stokesia laevis* 'Mary Gregory,' is a pale yellow Stokes aster named for the gardener who discovered it in her South Carolina garden. *Helianthus giganteus* 'Sheila's Sunshine,' blooms in late summer with soft pastel yellow blossoms. Kim explains that although this sunflower is 7 feet tall, it is so light and airy it adds grace rather than bulk to the garden.

At another perennial conference in October, Neil Diboll of Prairie Nursery raved about *Liatris ligulistylus*, a native blazing star with blood red buds opening to deep pink blossoms. Called meadow blazing star, this species grows to 4 feet and prefers rich, semi-moist soil. Butterflies are attracted to its abundant nectar and goldfinches relish the seeds.

Also introduced at the perennial conferences were:

- *Heuchera americana* 'Ring of Fire,' has silver leaves veined with purple. Its main attraction, however, comes after the first frost when leaf edges turn a brilliant coral red. This is a superb deep shade plant that takes heat and humidity and is mildew resistant.
- *Monarda didyma* 'ColRain Red,' with stout stems and purplish-red flowers is resistant to powdery mildew.
- *Tiarella cordifolia* 'Winter-glow,' with red and yellow foliage through winter, blooms for four to six weeks in spring with typical delicate white flowers.

Look for these and other natives at your local nursery or garden center, or order from nurseries or our newly updated list available from local VNPS chapters or, for a SASE, from VNPS.

Nancy Arrington Horticulture Coordinator

Last call for Mt. Cuba wildflower garden trip

As announced in the November Bulletin, we have arrangements for 24 members to visit Mt. Cuba Center for the Study of Piedmont Flora, one of the most outstanding woodland wildflower gardens in the East, on Friday May 19, rain or shine.

Mt. Cuba, in Delaware, is the home of Mrs. Lammot du Pont Copeland, a VNPS lifemember. We expect to make it a day trip with a 2-hour guided tour starting at 1 p.m. The driving time from Orange is approximately 3 1/2 hours. We will car pool as much as possible. This is a private garden not open to the public, so there is no entrance fee.

Ten people have signed up which is the absolute minimum for a tour, so we should have more registrants to insure us of this opportunity that does not come easily or often. Registration for the trip will close May 1.

Round up your friends and register with Ted Scott at 12493 Spicewood Road, Orange, VA 22960 or call 703-672-3814.

Auction slated to aid Woodbridge Refuge

Friends of the Woodbridge Refuge are planning an auction to fund opening the refuge to the public in early 1996. The auction will be held on April 1—NO FOOLING—at the National Wildlife Federation’s Laurel Ridge Center near Tyson’s Corner from 5 to 8 p.m.

If it is in your heart to lend financial support to this rich avian and botanical site, please attend. The donation is $25 which includes hors d’oeuvres, wine, soft drinks, dessert and a chance for a door prize.

Support for the new refuge can also be given through the donation of items for the auction. The festivities will actually include two auctions, a silent auction (minimum value for gifts is $15) and a live auction featuring more substantial gifts. The contributions are tax deductible and will be recognized on the program. Donations of crafts, antiques, personal services, lessons, and restaurant meals with celebrities are all possibilities. Art work is also welcomed.

The Woodbridge Refuge bird list has topped 200 with the addition of a visiting Mississippi kite and a migrating vermilion flycatcher. Mason Neck American bald eagles visit the refuge regularly. The floral checklist is now over 300 species and includes rattlesnake-master, meadow beauty, blue lobelia and milkwort. There are also several beautiful butterfly meadows at the refuge.

The goal of regional environmental organizations is to allow public access before 1996. VNPS-PWWS, Fairfax Audubon Society, Sierra Club-Mt. Vernon, the National Wildlife Federation and Audubon Naturalist Society comprise part of the roster of Friends of the Woodbridge Wildlife Refuge.

If you have any questions about the refuge or would like to attend the auction or donate items for it, contact Nicky Staunton at: 703-368-9803, 8815 Fort Drive, Manassas, VA 22110.
Wintergreen symposium

The 14th annual Wintergreen Wildflower Symposium will be held May 12-14 and features a number of exciting additions this year. The event is sponsored by Wintergreen and Wintergreen Nature Foundation.

Included among the list of special speakers and presenters this year are David Breil of Longwood who is currently writing a book on the mosses of Virginia; Stanwyn Shetler, the curator of botany at the Smithsonian who will be leading trips and presenting an international program, and Lucia Stanton who will speak on Thomas Jefferson as a naturalist. The husband and wife team of Caren Caljouw and Tom Rawenski will also be presenting programs. Caljouw will talk on the history of fire in the Virginia landscape and Rawenski will present a program on the mafic glades of Buffalo Mountain. VNPS members will be presenting wildflower identification workshops.

"We are increasing the number of exploratory trips to unique wildflower habitats," symposium organizer and the director of the Wintergreen Nature Foundation, Doug Coleman, said.

For more information, call Stephanie Allen at 804-325-8169.

Wildflower pilgrimage

The Wildflower Pilgrimage, co-sponsored by the Science Museum of Western Virginia and the Blue Ridge Wildflower Society, is celebrating its 26th year this spring. A lecture, as well as trips to local gardens and deep woods trails will be featured in this year's pilgrimage, which runs from Friday, April 28 to Sunday, April 30.

Friday evening's event, presented by Professor Phil Shelton of Clinch Valley College, features a talk on high elevation communities. The lecture, which begins at 7 p.m., is followed by an informal reception.

Saturday's menu includes the following choices: Peaks of Otter; Falls Ridge Nature Preserve; Tinker Creek and a local wildflower garden; Maggadee Creek and a local garden; Roanoke Gardens; Arcadia; and Roanoke River Overlook and Chestnut Ridge.

Sunday features the trip choices of Woodpecker Ridge, Blue Ridge Parkway and Roaring Run.

Native plants symposium

Over the past decade the interest in native wildflowers has soared. At the same time, concern over the loss of biodiversity has raised basic questions about the role of gardens in a rapidly urbanizing world. What have the past 10 years taught us, and should local plant communities play a fundamental role in the 21st century garden? These will be addressed at the Brooklyn Botanic Garden's Native Plants Symposium, June 1-2.

The symposium, which is geared toward gardeners, garden writers, horticulturists, conservationists, nursery operators, landscape designers and native plant enthusiasts will be held in the newly renovated building at Brooklyn Botanic Garden in Brooklyn, New York.

Lectures and forums will be held during the day Thursday, June 1. The evening of June 1 is reserved for the 50th anniversary of BBG's gardening book series. Optional tours to public and private gardens and natural areas in the New York metropolitan area will be arranged for June 2.

For more information, write Lisa Katzenstein Gomez, Brooklyn Botanic Garden, 1000 Washington Avenue, Brooklyn, NY 11225, or call 718-622-4433, ext. 259.

How many of our springtime flora can you find in this delightful spring scene drawn by VNPS staff illustrator Barbara Stewart?
Virginia Wildflower Celebration 1995

The nine chapters of the Virginia Native Plant Society celebrate the rich diversity of the native flora of the Commonwealth each year in April and May. For the next two months, Society members will share their enthusiasm for wild plants and wild places on field trips and wildflower walks, and during garden tours, plant sales, and a variety of other programs throughout the state.

You are cordially invited to any of the activities listed below; they are all open to the public. As some events require reservations, fees or additional instructions, use the telephone numbers provided to obtain further information. Propagated plants will be available at chapter plant sales.

The 1995 Virginia Wildflower of the Year, New York Ironweed, will add to the year-long celebration with its vibrant purple flowers from mid-summer to fall. Vernonia novaboracensis fills wet fields and stream sides in all but eight of Virginia's counties.

March 18, Saturday. 1 p.m. (snow date, March 25) Pauls Woods, to see putty root, cranefly orchid, skunk cabbage. Jacob Kagey (Shenandoah) 703-828-3297.

March 18, Saturday. Between 9 a.m. and 4 p.m. GLU-A-THON at the William and Mary Herbarium, Williamsburg. The John Clayton Chapter will be mounting collected floral specimens. Training provided for those who have not mounted herbarium specimens before. Contact Mary Hyde Berg, 804-693-3568 or Pat Baldwin, 804-838-2064 or 804-874-0892.

March 19, Sunday. 10 a.m.-12:30 p.m. Great Falls. Marion Lobstein (Prince William) 703-536-7150.


April 8, Saturday. 9 a.m.-noon. Trailing Arbutus Walk, Berg Farm, Gloucester County. Mary Hyde Berg (John Clayton Chapter) 804-693-3568.

April 8, Saturday. All day. Zuni Pine Barrens. Field trip led by Dr. Lytton Musselman of Old Dominion University. Lee Moomaw (South Hampton Roads) 804-422-6470.

April 8 & 9, Saturday (10 a.m.-2 p.m.) & Sunday (1-3 p.m.). James Madison University Arboretum Plant Sale. Ron Brown, 703-434-8271.

April 9, Sunday. 1 p.m. Staton Creek Falls Field Trip. Frank Coffey (Blue Ridge) 804-332-5757.

April 9, Saturday. 2 p.m. April Walk, Lecture on Spring Bulbs and Daffodil Garden tour. James Madison University Arboretum, Harrisonburg. Norlyn Bodkin, 703-568-6340.

April 15, Saturday. 1 p.m. Middle River to see sessile trillium. Jacob Kagey (Shenandoah) 703-828-3297.

April 15, Saturday. 1 p.m. Dry Run Branch Field Trip in Catawba. Butch Kelly (Blue Ridge) 703-384-7429.

April 15, Saturday. 9 a.m.-noon. Clayton Garden & Trails in Beaverdam Park, Gloucester County. Harriet Frye (John Clayton) 804-723-7286.

April 16, Sunday. 1:30-4:30 p.m. Balls Bluff, Leesburg. Marion Lobstein (Prince William) 703-536-7150.

April 16, Sunday. 2:30-4:30 p.m. Balls Bluff, Leesburg. Marion Lobstein (Prince William) 703-536-7150.

April 20, Thursday. 12:30-1:30 p.m. NVCC-Manassas Campus Nature Trail. Marion Lobstein (Prince William) 703-536-7150.

April 22, Saturday. 9-11 a.m. "Birds and Blooms," River Bend State Park. Alonso Abugattas (Potowmack) 703-759-3211.

April 23, Sunday. 1:30-4:30 p.m. Blackwater Preserve, Isle of Wight County, (turkey oak/long-leaf pine community). George McLellen (John Clayton Chapter) 804-693-4253.

April 23, Sunday. 8 a.m.-3:30 p.m. "Fossils & Flowers," Purse State Park. (rain date May 7). Alonso Abugattas (Potowmack) 703-759-3211.


April 28-30, Friday, Saturday & Sunday. Twenty-sixth Annual Wildflower Pilgrimage by the Science Museum of Western Virginia. Co-sponsored by Blue Ridge Wildflower Society. Frank Coffey (Blue Ridge) 804-332-5757.


(Continued page 6)

March 1995
Wildflower Calendar (Continued)...


April 29, Saturday. 1-4 p.m. Turk's Ferry Road, Gloucester County. Joe Brown, leader. Mary Hyde Berg (John Clayton Chapter), 804-693-3568.

April 29, Saturday. 1 p.m. Hone Quarry and Reddish Knob. Jacob Kagey (Shenandoah) 703-828-3297.


May 4, Thursday. Trillium Walk, G. Richard Thompson Wildlife Management Area, Linden. Anne Crocker (Potowmack) 703-437-0355, 5-7 p.m.

May 5, Friday. 10 a.m.-12:30 p.m. G. Richard Thompson Wildlife Management Area, Linden. Marion Lobstein (Prince William) 703-536-7150.

May 5-7, Friday, Saturday & Sunday. Great Smoky Mountains overnight trip. Frank Coffey (Blue Ridge) 804-332-5757.

May 6, Saturday. 8 a.m. G. Richard Thompson Preserve. Jacob Kagey (Shenandoah) 703-828-3297.

May 6, 7, Saturday & Sunday. and May 13 and 14, Saturday & Sunday. John Clayton Chapter Native Plant Sale. Donna Ware, 804-221-2213.

May 7, Sunday. 2 p.m. Wildflower Identification Workshop. James Madison University Arboretum Norlyn Bodkin, 703-568-6340.

May 9, Tuesday. 10-11 a.m. Wildflower Slide Show. Hunters Woods Fellowship House, Reston. Claudia Thompson-Deahl (Prince William) 703-437-7658.

May 13, Saturday. 9 a.m.-noon. Myriads of Mountain Laurel, Ruth Beck at Eagle Eyrie near Bar-hamsville, New Kent County. Donna Ware (John Clayton), 804-221-2213.

May 13, Saturday. 10 a.m.-2 p.m. Eleventh Annual Plant Sale, Virginia Western Community Arboretum, Virginia Western Community College. (Blue Ridge)

May 13, Saturday. 2 p.m. Wildflower Walk, Reston Nature Center. Claudia Thompson-Deahl (Prince William) 703-457-7658.


May 14, Sunday. 1:30 p.m. Pink lady's Slipper Trip. Jacob Kagey (Shenandoah) 703-8283297.

May 14, Sunday. 2 p.m. Lady's Slipper Walk at Bearwallow Gap. Frank Coffey (Blue Ridge) 804-332-5757.

May 20, Saturday. 8 a.m. The Falls of Hill Creek, W.Va. to see rare orchids and clintonia. Jacob Kagey (Shenandoah) 703-828-3297.

May 20, Saturday. 9 a.m.-5 p.m. Plant Inventory at Belle Isle State Park near Kilmarnock, Lancaster County. Canoeing from 10:30 a.m. to 12:30 p.m. (Canoes provided, no charge). Kenny and Boleyn Dale and Jane Showacre (John Clayton Chapter), group leaders. Contact the Dales, 804-725-5451.

May 21, Sunday. 1:30 p.m. Tillmen Road to see swordleaf phlox. Jacob Kagey (Shenandoah) 703-828-3297.

May 21, Sunday. 10 a.m.-12:30 p.m. Great Falls. Marion Lobstein (Prince William) 703-532-7150.

Wildflower canoe trip

Enjoy the beauty of spring with a new twist...from a perspective on the river. Come join us on a canoe trip on the scenic Pamunkey River, where dogwoods, redbuds, spring beauties and mayapples are among the plants in bloom.

The Tidewater trip is planned for April 15 at a cost of $25 per person. Canoes, paddles, life jackets and some basic canoe instruction will be provided. Deadline for the trip sign-up is March 22. Contact Garrie Rouse at 804-769-1449 for details and reservations.

Plant ID workshop

A one-day workshop and fieldtrip, "Introduction to Plant Identification," will be conducted at Blandy Experimental Farm Saturday, April 22, 10 a.m. to 3 p.m. This workshop will feature hands-on activities to familiarize participants with plant structures, identification keys and field guides. A follow-up fieldtrip to G. Richard Thompson Wildlife Management and the Blandy grounds will be April 29, 10 a.m. to 3 p.m.

Activities are sponsored by the Friends of the State Arboretum and a fee will be charged. For more information, call Blandy Farm, 703-837-1758.

Wetlands courses

The Wetlands Program of the Virginia Institute of Marine Science at Gloucester Point is offering a number of wetland education courses this year.

Courses are either agency or public. A partial course list: May 2-5, Wetland Identification and Delineation, agency; June 13-15, Wetland Plant Identification, agency; June 18-20, Wetland Plant Identification, public.

For more information on cost and registration, write: Wetlands Program, Virginia Institute of Marine Science, School of Marine Science, P.O. Box 1346, Gloucester Point, VA 23062 or call 804-642-7395.

March 1995
Virginia's Rarest Plants

Variable sedge has unusual habitat requirements

*Carex polymorpha* is a globally-rare herb of unassuming appearance with ecological requirements that are fascinating. Like other members of the sedge family (*Cyperaceae*), this species has no showy flowers. Petals are absent, and small, scale-like bracts are the most conspicuous part of the floral structure. Like other members of the *Carex* genus within the sedge family, each female flower and fruit is enclosed in a papery sack-like bract known as a perigynium. Over 125 species of *Carex* occur in Virginia, more members than in any other genus present in the state.

The habitat requirements of variable sedge are only beginning to be understood. Known from about 40 extant sites from Maine to Virginia, *Carex polymorpha* requires friable soils of low fertility. Most of the dozen or so Virginia sites are on thin, sandy soils underlain by sandstone or quartzite bedrock. While all of Virginia’s sites are in the mountains, many sites further north are near the coast.

Populations of variable sedge are believed to require periodic disturbance in order to maintain their long-term viability. Disturbance may be needed to lessen competition from other species, stimulate reproduction, and provide increased sunlight. In Virginia, fires are believed to be the major source of disturbance for variable sedge populations. All sites in Virginia show some evidence of past fires.

Changes in land use and the suppression of fires by humans appear to be the major threats to variable sedge. At the northern end of its range, many populations of *Carex polymorpha* have been destroyed or are threatened by development. In Virginia, most of the known populations are on public lands where development is not a threat. Many of the Virginia populations, however, are predominately vegetative due to a lack of recent disturbance.

The U.S. Forest Service has contacted the Virginia Department of Conservation and Recreation’s Division of Natural Heritage to conduct research on variable sedge within the George Washington National Forest. The research will evaluate the response of *Carex polymorpha* to carefully controlled burning at different seasons of the year. Today, unrestrained fires represent a hazard to public safety and property, but carefully prescribed and controlled fire can be utilized without such hazards. Although this research is still in its beginning stages, one test plot located within a mostly vegetative population of variable sedge showed a dramatic increase in flowering and fruiting stems after a prescribed burn.

Variable sedge is listed as endangered under the Virginia Endangered Species Act, which is administered by the Virginia Department of Agriculture and Consumer Services. The species is also a candidate for listing under the Federal Endangered Species Act.

Allen Belden, Jr.
Va. Dept. Conservation & Recreation
Division of Natural Heritage

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Bob Eubank has a wealth of information about native plants which feed birds, so he will be asked to recommend some bountiful native plants for me to consider. Marlene Condon, another member and an accomplished wildlife gardener, is also a source of information. Her articles in the *Bulletin* have always given hints about helping our neighbors in the wild. A review of the backyard habitat booklet produced by Craig Tufts of the National Wildlife Federation and of information prepared by Jeff Curtis of the Department of Game and Inland Fisheries will help with my plans.

There are some excellent native berried trees, shrubs and vines which will ensure food for migrating wildlife next year. Resident bunnies, squirrels and opossums benefit as well. Perhaps our Winter Workshop -- "Conservation through Propagation" -- will improve my plans. The hollies I planted were left by birds in some gravel around a building and transplanted to my lot when they were two inches tall. Maybe there are other ways to furnish lots of plants for little cost. The VNPS source list of nurseries is available upon request. Plan now to be able to feed the robins which will visit you next year. Native plants will afford you and your guests great glee next winter.

Nicky Staunton, 2nd Vice President
Guide to wildflower places created by VNPS members

Several VNPS members are celebrating the publication of their new book, Finding Wildflowers in the Washington-Baltimore Area. This book is a VNPS collaboration. It is written by Cris Fleming, VNPS Director at large and Potowmack Chapter Botany Chair; Marion Blois Lobstein, a founding member of VNPS and Prince William Chapter Botany Chair; and Barbara Tufty, a VNPS member. The book is illustrated with 40 drawings by Nicky Staunton, former President and now 2nd Vice-President of VNPS (Nicky did the drawings to relax from her VNPS duties!). The cover is a stunning photograph of Virginia bluebells by Hal Horwitz, photographer extraordinaire of the Pocohantas Chapter.

This is not a guide to wildflowers, but a guide to places where wildflowers grow and what to see at those places at different seasons and in different habitats. Covering roughly a 100-mile radius around Washington and Baltimore, many Virginia places are included, such as Shenandoah National Park, Thompson Wildlife Management Area, Prince William Forest Park, Leesylvania State Park, and 37 other places in Virginia. Many areas in Maryland and a few in Washington, D.C., West Virginia, and Pennsylvania are also featured.

An introductory section covers the geology, climate, and habitats of the region. The final section is an invaluable listing of over 750 wildflowers of the region, with information on the blooming period, habitat, and rarity of each species.

Over seven years in the making, the book is being published by Johns Hopkins University Press and will be available in March (Just in time for spring wildflowers!). The price is $15.95 paperback plus $3 to cover shipping. You can order it from JHUP, Hampden Station, Baltimore, MD 21211 or order by phone 1-800-537-5487. Cris and Marion will also have copies for sale on their field trips this spring and summer.

Cris Fleming
Director at large

Workshop

(Continued from page 1)

Norman C. Schwartz, co-owner and plant propagator at Edgewood Farm and Nursery in Greene County. Schwartz will address seedling aftercare, including potential problems and hazards a seedling faces after germination. Preventing problems and improving the probability of seedling survival will be addressed. Schwartz maintains and propagates over 4,000 different herbs and perennials for his retail and mail order sales.

Mark April 1 on your calendar for the VNPS workshop. Bring a lunch and join us at 10 a.m. at Piedmont Virginia Community College in Charlottesville for this look at the latest techniques for propagation of easy as well as difficult plants.

The college is located off Interstate 64 at Exit 121 (Route 20 South) in Charlottesville. In order to ensure adequate seating, please return the registration form below to: Tim Williams, VNPS Education Chair, 2400 Jefferson Park Avenue, Charlottesville, VA 22903 or call 804-977-8580 after 6 p.m.

 VNPS Winter Workshop Registration

NAME__________________________

ADDRESS_______________________

PHONE NUMBER__________________

NUMBER ATTENDING______________

Return to:

Tim Williams, VNPS Education Chair
2400 Jefferson Park Avenue
Charlottesville, VA 22903
804-977-8580, after 6 p.m.

March 1995
The Federal Native Plant Conservation Committee is off to a running start. The committee was organized in May 1994 with a memorandum of understanding between four federal agencies: the National Park Service, Fish and Wildlife Service, Forest Service, and Bureau of Land Management. A major goal of the committee is to promote protection and restoration of native plant habitats through multi-agency action. Other goals include working with state, local, and private organizations to identify conservation needs for native plants and their habitats, coordinating public education and outreach on native plants, developing consistent scientific methodology, and encouraging conservation-oriented research.

Interest among federal agencies and private groups, has been very strong. As of January 11, the four lead agencies have been joined by the National Biological Survey, USDA Agricultural Research Service, Soil Conservation Service, and Department of Defense, as well as 28 non-federal cooperators. Nine other federal agencies and eight other organizations have expressed interest in joining the committee. The Virginia Native Plant Society joined the committee in October and, as our representative, I have attended several meetings since then. Other private groups include The Nature Conservancy, the Garden Club of America, the National Wildflower Research Center, and several arboreta and botanic gardens.

Under the leadership of Ken Berg, national botanist of the BLM and Joan Canfield, native plant coordinator of the FWS, the committee meets monthly to discuss agency activities, initiatives, and progress. Subcommittees have been established to carry out some of the group’s work. Among the working committees are 1) strategic planning, 2) celebrating wildflowers, 3) native plant land restoration, 4) evaluation of exotics, and 5) data base and information needs.

In November, the National Fish and Wildlife Foundation awarded a $100,000 challenge grant to fund 13 urgent plant conservation projects selected by the committee. Another proposal was submitted to the Department of Defense Legacy Program to support biodiversity assessment and training and public outreach on plant conservation.

The four lead federal agencies are co-sponsoring the 1995 “Celebrating Wildflowers” brochure. Thousands of these bright yellow folders describing the importance of plants and plant communities will appear at visitor centers and kiosks across the country in the coming months. The committee is working to supplement the brochure with a national calendar of wildflower walks and activities on public lands. VNPS chapter walks in national parks and national forests have been submitted for inclusion in this calendar. The committee also is planning some talks and walks in the Washington area to kick-off wildflower week, May 22-28. (The date seems late to us because the wildflower week was first established out west.)

The committee has heard talks by Wendell Hassell on the National Park Service/Soil Conservation Service Plant Materials Program and by Craig Shafer on the National Natural Landmark Program.

It is exciting to know that people in all these different federal agencies are working on behalf of our native plants and their habitats. It is even more exciting that VNPS can be a participant in this important initiative.

Cris Fleming
Director at Large

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Nancy Sorrells, Editor
Barbara Stewart, Artist

Original material contained in the Bulletin may be reprinted, provided credit is given to the author, if named. Readers are invited to send letters, news items, or original articles for the editor’s consideration. They should be typed (double-spaced, please) or sent as a Macintosh text file to the Editor at Rt. 2, Box 726, Greenville, VA 24440.

The deadline for the next issue is April 10
Chapter News

Chapters support fact sheet publication

A number of chapters have stepped forward to make significant contributions to be used in the publication of fact sheets on invasive alien plants. The Society wishes to thank the Blue Ridge Wildflower Society, Pocahontas, Potowmack and Piedmont Chapters, the Prince William Wildflower Society and the Shenandoah Chapter for their substantial help in this endeavor. The Jefferson Chapter contributed earlier.

Twelve sheets have been published and 10 more are in process. These contributions will make the publication of most of the last 10 possible.

The sheets are attracting considerable attention, both to the subject and to the Society. Anyone wishing a set of the sheets already published may obtain them by sending a self-addressed 9x12 envelope with $1.01 postage on it to: Ted Scott, 12493 Spicewood Road, Orange, VA 22960.

Lynnhaven House garden

Members of the South Hampton Roads Chapter continue to work on the Lynnhaven House garden given and tended in memory of former chapter member Bunny Morgan.

Last fall chapter members gathered at the garden to clean up and prepare the flower beds for winter. Some of the remaining empty spaces will be filled this spring with natives from the coastal plain, including blue false indigo, Baptisia australis; blue phlox, Phlox divaricata; bee balm, Monarda didyma; cardinal flower, Lobelia cardinalis; and butterfly weed, Asclepias tuberosa.

Progress continues on Annual Meeting

Members of the Pocahontas Chapter are continuing to plan the exciting events for this year’s Virginia Native Plant Society’s Annual Meeting.

The date of the Richmond area meeting is September 15, 16 and 17. Back by popular demand will be the live and silent auctions.

The contact person for the planning is Richard Moss at (work) 804-353-3438 or (home) 804-748-2940.

Sandy Bottom plants

Members of the John Clayton Chapter have assisted in identifying 140 species of plants at Sandy Bottom. The park has been open to the public since January and is located in Hampton near Interstate 64 and Big Bethel Road.

Shenandoah Chapter activities

Shenandoah Chapter member Carrol Lisle took wildflowers to the schools recently. She entertained a local fifth grade class with a flower slide show presented on behalf of the chapter.

Work continues on the Augusta Springs project. Chapter members have been identifying plants on the tract of land in western Augusta County and forwarding the lists to Mark Gatewood who is developing an inventory. At this time, 184 species have been identified.
Shale barrens offer unique wildflower viewing

Editor's note: Since his presentation about shale barrens at the 1994 Virginia Native Plant Society’s annual meeting, Tim Williams has received numerous requests concerning these unique ecosystems. This article briefly describes shale barrens and gives directions and details for Williams’ favorite barrens located in Highland County at Headwaters.

Shale barrens are plant communities that occur primarily in Virginia and are characterized by the presence of a unique assemblage of plants and geological features. They occur on steep, south-facing shale outcrops in western Virginia, eastern West Virginia, and southern Pennsylvania. They are usually undercut by water, but in any case are well drained. They are also hot -- with surface temperatures often reaching 150 degrees F. These physical conditions maintain a plant community identified by approximately 17 endemic species, many of which are spectacular flowers.

The shale barrens are at their best during two months of the year. Beginning at the first of May, the barrens are marked with a covering of moss phlox (Phlox subulata). This is followed by Kate's mountain clover (Trifolium virginicum) and the shale barren clematis. Only the common one, Clematis albicoma, grows at Headwaters, but it varies widely at this locality. Flower color ranges from white through yellow to deep purple. The flowers vary from being nearly hairless to being almost obscured by a dense covering of one-quarter inch white hairs.

Penstemons (Penstemon canescens) can be seen flowering at Headwaters from the middle to the end of May. Although this plant occurs elsewhere, it is at its best on the shale barrens. Here it grows knee high and (See Shale barren, page 8)

VNPS "Awards of Excellence" established

The Virginia Native Plant Society’s Board of Directors has established a program to honor those who have made exceptional contributions to the society’s goals. "VNPS Award of Excellence" candidates may be selected in any of five categories, with each honoree receiving an engraved plaque and official recognition at the annual meeting. Accomplishments must have a significant effect on plants or the natural environment of Virginia.

It is the intention of the board that this program be used to honor VNPS members, chapters, committee members and the community for truly exceptional achievements.

The five award categories are defined as follows:

Conservationist of the Year - This award is given to any single (See Awards, page 8)

Inside This Issue
Fact sheets:
Invasive Alien Plant Species of Virginia
1. Johnson grass, Sorghum halepense
2. Rosa Multiflora
From the President

"Spring, Spring, Spring!" What a wonderful time of the year for VNPS members and plant enthusiasts. Though most parts of our state have been dry, the wildflowers are back and as beautiful as ever. I have had the opportunity to attend several walks and view some of my favorites.

A friend recently told me about a place just a few miles from home that is loaded with Mertensia virginica (Virginia bluebells) and a range of hemlocks. I had the opportunity to visit there yesterday and what an impressive place it was.

While reading a chapter newsletter recently, I saw where a member stated a concern that rang a bell with me because I have heard the same concern expressed in my chapter—"We need more young members."

VNPS members can help attract young members by taking advantage of every opportunity to work with young folks and extending invitations for participation in events such as field trips and programs. I know that many chapters are doing this, but remember, we can’t do too much! A number of chapters have seized the opportunity to help design and develop wildflower gardens at several school locations.

A new possibility recently came to mind when I was contacted to review some requirements being considered for a Virginia Native Plant Merit Badge being offered by a Girl Scout Troop. What a wonderful idea for local chapters to encourage! Chapters might want to consider purchasing field guides for scout leaders or offering them as an incentive for earning the badge.

Also, a chapter field trip I attended had so many participants show up that we had to break up into three groups in order to operate. I learned, after signing about 20 participation forms, that many of these folks were participating in the "Master Naturalist Program" being sponsored by the Lynchburg Division of Parks and Recreation. Participants in this program are required to participate in a certain number of hours of field trips and programs. We can find out about groups such as these and make our activities available for their consideration. Several participants in this program have joined the Blue Ridge chapter. At the moment, I’m preparing a brief presentation about VNPS and the Blue Ridge Wildflower Society which I will give to the Lynchburg Parks and Recreation group.

If every chapter can secure a good contact with local newspapers and keep them informed about chapter activities, we can attract new, young, and active potential members. When they visit or participate in activities please make them feel welcome and provide membership brochures and information for their consideration.

Your president, Frank Coffey

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CERTIFICATE of RECOGNITION

By virtue of the authority vested by the Constitution in the Governor of the Commonwealth of Virginia, there is hereby officially recognized:

VIRGINIA WILDFLOWER CELEBRATION

WHEREAS, through its many statewide chapters, the Virginia Native Plant Society encourages Virginians to cherish Virginia's diverse natural beauty in every part of our Commonwealth and in every season; and

WHEREAS, the delicate beauty of spring wildflowers, spreading across Virginia's countryside as winter yields to the new season, brings special refreshment of spirit to our people; and

WHEREAS, during April and May 1995, the Virginia Native Plant Society and its local chapters will be conducting a variety of events inviting the public to enjoy and learn about Virginia's natural habitats and wild plants;

NOW, THEREFORE, I, George Allen, Governor, do hereby recognize April and May 1995, as VIRGINIA WILDFLOWER CELEBRATION, in the COMMONWEALTH OF VIRGINIA, and I hereby call its observance to the attention of all our citizens.

Given under my hand and the Lesser Seal of the Commonwealth, this 13th day of April, in the year of Our Lord one thousand nine hundred and ninety-five, and the two hundred nineteenth year of the Commonwealth.

[Signature]

[Seal]

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VIRGINIA NATIVE PLANT SOCIETY FY 1995 BUDGET

The VNPS Board of Directors has approved the following budget for fiscal year 1995. Members should remember that the proposed allocations do not wholly reflect current VNPS priorities since the Society's budget cannot show volunteers' time or chapter expenditures.

INCOME

- Membership dues $13,500
- Sales, fees & investments 13,360
- Donations & contributions 2,750

INCOME TOTAL $29,610

EXPENDITURES

- Programs (conservation, botany, etc.) $3,950
- Outreach (education, publications, etc.) 14,500
- Administration (membership, insurance, correspondence, annual meeting, etc.) 11,160

EXPENDITURE TOTAL $29,610

TOTAL ASSETS BEGINNING FY 1995

$20,849

May 1995
Fabulous Fall Flowers on the Fall Line

The Pocahontas Chapter invites you to the Virginia Native Plant Society Annual Meeting

September 15-17, 1995

All roads lead to Richmond for a weekend of discovery! Come join us to:

- amble through idyllic woodlands
- hike the wild rice marshes to discover a rare variety of cassia
- bike along the James River
- stroll amongst the cypress
- canoe the pristine Pamunkey to view the sensitive joint vetch

Make your hotel reservation now! Space is limited!
Call the Holiday Inn Chester at (804)748-6321
Mention VNPS to receive the special rate of $39 a night.

Watch for registration materials in your August Bulletin!

Symposium highlights landscaping with native plants

"Native Plants, Exploring Nature's Palette," this year's Lahr Symposium held March 25 at the U.S. National Arboretum in Washington, D.C., featured speakers discussing native plants in natural areas, in public parks, along highways and in home landscapes.

John Hench, a senior ecologist with the Maryland-National Capital Parks and Planning Commission, presented a slide program titled "Natural Ecosystems of the Metro Area--Can They Survive?" He discussed threats including people, invasive species and whitetail deer, and concluded that we can't save everything but should concentrate on saving what's most important which includes habitats of rare, threatened and endangered plant species. The most troublesome invasive exotics faced by the commission are alianthus, multiflora rose, English ivy and garlic mustard. He also discussed problems caused by deer and the various controls, including fencing and limited hunting, which have been tried.

F M Mooberry showed slides chronicling the development of native plant landscaping at the Brandywine Conservancy and River Museum, Chadds Ford, Pennsylvania, during the 15 years she was coordinator of horticulture there. She used masses of common native perennials such as blackeyed Susan (Rudbeckia), sundrops (Oenothera), green and gold (Chrysogonum virginianum), goldenrod (Solidago), and asters to provide color from spring through fall. She has also landscaped private gardens by using native plants and working with natural conditions. She turned a damp, shady area where grass wouldn't grow into a moss garden, and used low growing natives, such as foamflower (Tiarella), as groundcover for foundation plantings.

Bonnie Harper-Lore, a landscape architect with the Federal Highway Administration, showed a video highlighting roadside wildflower plantings in several states. She commented on the progress (or lack thereof) that has been made in the use of wildflowers along highways since the effort was launched in the 1970s. In many cases, "wildflowers" are exotic species such as cosmos and bachelor's buttons, but even they are preferable to miles of close-cropped turf.

She also discussed the 1994 executive memorandum directing fed-
Wildflower Calendar

June 10, Saturday. 9 a.m. to noon. City of Hampton, Sandy Bottom Park. Pat Baldwin, Sylvia and Sid Sterling and Mary Hyde Berg (John Clayton Chapter), group leaders. Pat Baldwin, 804-838-2064 or 804-874-0892 to register.

June 10, Saturday. 8 a.m. Rhododendron Day on the Blue Ridge Parkway. The Blue Ridge Wildflower Society's annual Rhododendron Day will begin with breakfast at the Peaks of Otter restaurant at 8 a.m. Other activities begin at 10 a.m. at the visitor center. Bring a lunch. Frank Coffey (Blue Ridge Wildflower Society) 804-332-5757.

Mountain ecology workshop

The cool mountains near Vesuvius, Virginia are the setting for an adult nature camp, August 18-22.

The mountain ecology workshop will include classroom instruction in the natural sciences, leisurely walks near the campus and a series of optional workshops offering crafts and art instruction.

Botany, geology, archaeology, photography, astronomy, nature writing and watercolors are among the topics to be explored. Campers may stay in the bunkhouses, bring tents or stay at a nearby hotel.

For more information, write: Nature Camp, Rt. 1, Box 181, Vesuvius, VA 24483 or call (919) 929-5910;

Plant ID classes

A field botany class and one on summer wildflower identification will be taught by Marion Lobstein, associate professor of biology at NVCC-Manassas Campus.

The field botany class runs June 26-July 13 on Mondays, Tuesdays, Wednesdays and Thursdays. Emphasis will be on the use of plant dichotomous keys and field characteristics. For more information, call 703-837-1758.

The summer wildflower class, Augusta 7-10, will stress identification using popular wildflower guides or Flora of West Virginia. For information, call 703-257-6643.

THE MYSTERY PLANT PUZZLE

Can you identify these wildflowers? Unless you think you recognize the description of the plants, then use the keys found in a wildflower guide such as Newcomb's Wildflower Guide. Once you think you know what the plants are, then look for the answers on page 6 of the Bulletin.

Mystery Plant Number 1

Blooming from April to June, this low growing plant has yellow daisy-like solitary flowers on stalks 3 to 6 inches tall. There are usually five rays of petal-like flowers and these are toothed at the tip. The center of the "flower" is made of many disc flowers. The flower heads are about one inch across. The plants are hairy with opposite long-stemmed (petioled) leaves. The leaves are ovate (broader at the bottom end) to oblong; the edges have rounded teeth. The plant can act as a ground cover.

Mystery Plant Number 2

This plant is not a native but came from Europe with the colonists. It is an herb with a pungent, watery sap. It has cross-shaped regular, perfect flowers about one quarter inch across. There are four deciduous sepals, four white petals that start from the receptacle below the ovary. The petals are not attached to the ovary nor to each other. There are two pistils (carpels) and six stamens in two lengths. Two are shorter and begin deeper in the blossom.

The seed pod (silique) is an elongated cylinder held upright. The pod is two-parted (2 locular) with a thin membrane (septum) separating the halves. There are many seeds. The compound leaves are alternate with three to 11 entire leaflets. The terminal leaflet is largest and is nearly round. In the area covered by the Blue Ridge Wildflower Society, this plant can bloom from April to October. Where it grows is part of the puzzle.

"The Plant Puzzle" was created by Neal Fletcher of the Blue Ridge Wildflower Society and has been reprinted from that chapter's newsletter.

June 17, Saturday. 1 p.m. North River to see large twayblade and roundleaf orchid. Jacob Kagey (Shenandoah Chapter) 703-828-3297.

July 22, Saturday. 8:30 a.m. East side of Massanutten Mountain to see yellow fringed orchid. Bring a lunch. Jacob Kagey (Shenandoah Chapter) 703-828-3297.

August 5, Saturday. 8:30 a.m. Shenandoah National Park to see Turk's-cap lily. Bring a lunch. Jacob Kagey (Shenandoah Chapter) 703-828-3297.

August 19, Saturday. 9 a.m. Carter's Run Registry Walk. Group leader Jocelyn Sladen (Piedmont Chapter) 703-349-3248.

September 10, Sunday. 1:30 p.m. Hike to see New York ironweed and great lobelia. Jacob Kagey (Shenandoah Chapter) 703-828-3297.

October 14, Saturday. 8:30. Augusta Springs to see bottle gentian. Bring a lunch. Jacob Kagey (Shenandoah Chapter) 703-828-3297.

May 1995
Invasive Alien Plant Species of Virginia

Johnson Grass (*Sorghum halepense* (L.) Persoon)

**Description**

Johnson grass forms dense clumps and grows to eight feet tall. Before the flowers appear, its long, smooth leaves with a white midvein are characteristic. The stems may be pink to rusty red near the base. Its flowering inflorescence is large and loosely branched. It produces reddish-brown seeds which are approximately 1/8th of an inch long. Johnson grass is similar in appearance to eastern grama grass (*Tripsacum dactyloides*), big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*). Consult an agricultural extension agent or a natural resource specialist if your identification of the plant is in doubt.

**Habitat**

Johnson grass occurs in cultivated and abandoned fields, forest edges, streambanks, roadsides, vacant lots or any disturbed ground.

**Distribution**

This plant is found in virtually every county and city in Virginia. It was introduced to the United States from its native range around the Mediterranean Sea. In fact, Johnson grass has spread to most warm-temperate regions of the world. It is listed by the Virginia Department of Agriculture and Consumer Services as a noxious weed.

**Threats**

Johnson grass is regarded as a major agricultural weed, especially in corn fields, where it forms tall, dense stands. The dead stems and leaves of this perennial herb cover the ground all winter. It aggressively crowds out native species, most often along riverbanks. Along forest edges, it can slow the natural succession of fields to woodlands.

**Control**

When cut, the underground stems (rhizomes) of Johnson grass resprout, forming new plants. The plant is resistant to many common herbicides as well. These factors make Johnson grass a pernicious weed. Small stands may be controlled by handpulling the plants when the soil is moist. Severe infestations can be controlled by repeated mowing to kill seedlings. Mature plants, however, require repeated winter tilling to expose and kill root material. Spring burning may encourage regrowth therefore it is not recommended as a control method for this species.

Control of Johnson grass with herbicide requires several applications with proper timing to insure effectiveness. Glyphosate herbicides are recommended because they are biodegradable. However, glyphosate

*For more information, contact the Department of Conservation and Recreation or the Virginia Native Plant Society.*
Invasive Alien Plant Species of Virginia

Johnson Grass

is a nonselective, systemic herbicide which will affect all green vegetation. To be safe and effective, herbicide use requires careful knowledge of the chemicals, appropriate concentrations, and the effective method and timing of application. Consult a natural resource specialist or an agricultural extension agent before attempting this control measure.

References


For more information, contact the Department of Conservation and Recreation or the Virginia Native Plant Society.
Save time -- Check germination rates before planting

As the sun gradually grows stronger, we gardeners start to shuffle through our packets of seed. Sometimes we find ourselves with leftovers from other years. Except for the short-lived seeds of lettuce and parsnips, most year-old seed should still be fine if it has been stored in a cool, dry place. But what about older seeds?

You can avoid wasting time and garden space by testing seeds for germination. Seed with a low germination rate can still produce a worthwhile stand of plants if you sow thickly. The following steps are a home-grown version of the germination test used by seed companies.

1. PREPARE A MOIST BASE - Professionals testers often use a base of super-absorbent felt or blotting paper, but for home testing, double layers of paper towels are fine. Mark off the towel into 1-inch squares with a ball-point pen. Fit the towels into the bottom of a shallow pan or cookie sheet. Dampen the towels with warm water until they are moist but not soggy. A squirt bottle works well for this.

2. COUNT OUT THE SEEDS - Professionals usually test 100 seeds at a time, but 50 is fine. If your supply is limited, 20 will give an adequate test. A good rule of thumb is to use less than 20 percent of your supply, but remember it is easier to calculate germination rates from round numbers. Place a seed in the center of each marked square. Return the remainder of the seeds to their container and store in a cool, dry place.

3. INCUBATE THE SEEDS - For vegetables, herbs and most flowers, cover the seeds with two layers of damp paper towels or newspapers and slide the whole arrangement into a clear, plastic bag. Some flower seeds need light to germinate. Leave these seeds uncovered, but still enclose in a plastic bag. Do not close the bag tightly because seeds need air as well as moisture to germinate.

Place the bag of seeds in a warm place (70-80-degree range)--on top of a hotwater heater or refrigerator, near a wood stove or near a hot air vent. For light sensitive seeds, place where they will receive indirect light. For slower germinating seeds, be sure the towels remain damp. Gently sprinkle towels with warm water if they show signs of drying.

4. CHECK FOR GERMINATION - Take your first peek in two to three days. Most viable seed will germinate within two or three weeks, but some sprout much faster. Consult the seed packet or a seed-starting guide to know what to expect.

If 40 out of 50 seeds sprout (80 percent), the seeds are definitely worth planting. Even a germination rate of 50 percent means there are still enough viable seeds for a decent stand. Jot down the test date and germination rate on the seed packet so that you will remember how thick to plant. A germination rate lower than 25 percent should persuade you to order fresh replacements.

Keep in mind that these results are obtained under near ideal conditions. If you discover low germination rates, plant the seeds with a heavy hand, use only fine soil and keep your flats or beds well watered even before seedlings appear. In other words, give the seeds every bit of encouragement.

The above article was written by Nancy Bubel, author of The New Seed Starter's Handbook, published in 1988 by Rodale Press. Bubel’s book contains complete, general seed-starting directions as well as specifics for wildflowers, herbs, shrubs, trees, vegetables and garden flowers. It also includes a section on saving seed at home. The article and illustration were reprinted courtesy of Horticulture, The Magazine of American Gardening.

Shenandoah member marvels at mushrooms

When Shenandoah Chapter member Diane Holsinger is out in the woods or on the trail, she enjoys discovering what varieties of mushrooms are growing from a rotten piece of wood or on a damp area of the forest floor.

Holsinger was the featured speaker of the chapter's February meeting, showing a number of mushroom slides and explaining to the group how to make a spore print--essential in identifying many varieties of mushrooms.

She offered these tips for mushroom species to watch for in the spring: Scarlet cup, Sarcascypha coccinia, mushrooms with cups from 3/4 to 2 3/8 of an inch wide and 3/4 to 1 1/4 an inch high. The cups are small and bright red with a white outer surface and brittle flesh. Scarlet cups grow singly or in small groups on sticks in wet places, along roadsides or on burned sites. These fungi can appear as early as March.

Another interesting mushroom to look for is eyelash cup, Scutellinia scutellata. These fungi grow in small clusters and have cups which are bright red to orange with dark eyelashes. The hairs can easily be seen with a hand lens. This variety is a gregarious grower on rotten wood or damp soil.

brazenly
Native plants highlight Lynchburg garden

For Virginia Native Plant Society member Dorothy Bliss, a dream is blossoming along a hillside at Randolph-Macon Woman's College in Lynchburg. Bliss is the registry chair of VNPS and professor of biology, *emerita*, at the Lynchburg college.

For many years, Bliss thought a botanical garden between the school's science center and the library would complement the landscape. A year ago she coordinated efforts to put the garden into place. A crew cleared the area, cutting away tangled English ivy and Japanese honeysuckle, clumps of overgrown autumn olive, and other alien invaders. This spring, aided by members of the Blue Ridge Wildflower Society, untold clumps of field garlic, *Allium vineale*, and several species of chickweed were removed.

Now, in place of the overgrown field are two biology pools enclosed by low rock walls and shaded by a large sweet gum tree, two ash trees and a ginkgo tree. Compost, loam and shredded mulch now surround plants that were set out in the garden last fall. More plants were added this spring. When completed, two walkways will lead into the garden. Smaller paths will meander through the plantings.

The emphasis throughout the garden is on plants native to eastern North America. In early November, the terrace and slope below the brick wall were planted with native catawba rhododendron, mountain laurel, doghobble, American holly, mountain holly and winterberry.

Shrubs with fruits and seeds that are attractive to birds, and nectar-bearing plants that entice butterflies and hummingbirds were selected. Ground-hugging plants like creeping phlox, Canada ginger and alumroot were added this spring and placed between the shrubs.

Great blue lobelia and cardinal flowers placed in the damp soil along the lower margins of the larger pool will add splashes of color when they bloom in late summer and early fall. Several clumps of coneflowers, which produce large flower heads with drooping reddish-purple rays, are also included in the garden. This species occurs naturally in only 15 sites in Virginia and is listed as federally endangered.

Other herbaceous plants put in the ground last fall include dwarf crested iris, bleeding heart, Virginia spiderwort, valerian, green and gold, butterfly milkweed, alumroot and Christmas fern.

Two specimens of the Ben Franklin Tree have been placed on either side of the main path. This very small tree was first discovered in 1765 by John Bartram along the banks of the Alatamaha River in Georgia. Many botanists searched in vain for this tree in subsequent years but could not find it again in the wild. When collecting the first herbarium specimens, Bartram took cuttings for his garden, and today the nursery-grown trees can be traced back to these only known specimens. Even without its mystery, *Franklinia* is an attractive addition to landscape plantings, and in late summer, snow white flowers with conspicuous yellow centers open as dark green leaves turn to bright scarlet or orange.

A botanical garden is a long-term project—actually a never-ending one. With physical assistance from the college's conservation class and plant and labor donations from the Blue Ridge Chapter of the Virginia Native Plant Society, the project has been launched.

*Information for this story was drawn from an article written by Dorothy Bliss and printed in the Winter 1995 Randolph-Macon Woman's College Alumnae Bulletin.*

**Mystery plant answers**

The beautiful plant described in puzzle number 1 on page 4 is *Chrysogonum virginianum*, green and gold.

The second mystery plant, though far less showy but quite tasty, is *Nasturtium officinale*, watercress.

Did you recognize the descriptions or were you able to key them out correctly?
For your library

Series chronicles Appalachian seasons

Those who enjoyed Marcia Bonta's book *Appalachian Spring* (published 1991) will be eager to read her new volume, *Appalachian Autumn* (published 1994), and they will not be disappointed.

Published by the University of Pittsburgh Press as part of the Pitt Series in Nature and Natural History, these are the work of a serious naturalist who lives in an isolated mountain location in west central Pennsylvania. Both books are diaries of her life as a nature watcher in an area where there is much to watch. They chronicle the sensitivity of the writer to the interconnectedness and the unique value of life in the wild.

Bonta has a curiosity about the phenomena which she perceives and a talent for explaining them in a logical and lasting way. Plant lovers who frequent higher altitudes will identify with the species she studies, others will recognize certain favorites in her descriptions and all will appreciate the general tone of her comments. Bonta is also the author of the popular *Women in the Field: America’s Pioneering Women Naturalists* (published by Texas A & M University Press, 1991).

*VNPS member writes book on historic landscape design*

Potomac Chapter member Linda McClelland, an historian at the National Register of Historic Places, has written a book which should be of interest to VNPS members.

*Presenting Nature: The Historic Landscape Design of the National Park Service, 1916-1942* is a 314-page study, with 80 drawings and photographs. The book tells how the National Park Service met the challenge of developing parks for visitor appreciation and enjoyment while ensuring scenic resource preservation.

Topics include: the history of "zone" gardens at park museums; the use of native plants to harmonize park structures with natural scenery; "landscape naturalization" using native plants to erase construction scars; exotic plant prohibition in national parks; CCC conservation projects; and the role of ecologist Frederick Clements in planting native perennials in Yosemite.

The book ($20), can be ordered through: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954; by fax 202-512-2250 or phone 202-512-1800.

Doris Baker, Shenandoah Chapter

New orchid journal being published

The North American Native Orchid Alliance announces the publication of a new journal on native orchids. *The North American Native Orchid Journal* will be published quarterly in March, June, September and December.

According to editor Paul Martin Brown and editorial consultant Philip Keenan, the periodical will consist of informative articles, illustrations and orchid news. The premier issue, which came out in March, included a checklist of North American orchids and an index to 1994 orchid literature.

Membership in the North American Orchid Alliance, a group which is dedicated to the conservation and promotion of the continent's native orchids, is $22 per year and includes a subscription to the new journal. Memberships received before June 1 will be offered at a special first-time rate of $18. For membership and subscription information, write: Nancy Webb, 84 Etna Street, Brighton, MA 02135.

Contributions for future issues of the journal are also being accepted. For more information, write: Paul Martin Brown, 15 Dresden St., Jamaica Plain, MA 02130-4407.

The Bulletin is published five times a year (Jan., March, May, August, Nov.) by Virginia Native Plant Society P.O. Box 844, Annandale, VA 22003 (703) 368-9803

Frank Coffey, President
Nancy Sorrells, Editor
Barbara Stewart, Artist

Original material contained in the *Bulletin* may be reprinted, provided credit is given to the author, if named. Readers are invited to send letters, news items, or original articles for the editor's consideration. They should be typed (double-spaced, please) or sent as a Macintosh text file to the Editor at Rt. 2, Box 726, Greenville, VA 24440.

The deadline for the next issue is July 10.
Shale barren plants peak during May and August

(Continued from page 1)

is an intense pink or lavender. This is also the time to see Scutellaria coatta, a mint with large textured leaves of deep green mottled with white.

Other spring flowers include shale ragwort (Senecio antennariifolius), wild pink (Silene pensylvanica), and birdsfoot violet (Viola pedata).

The second period of flowering is in August. This is the time of the shale barren evening primrose (Oenothera argillicola). This plant forms 3-foot spheres covered with hundreds of 3-inch blossoms of an unusually clear and intense yellow. These plants grow not only on the shale barrens at Headwaters, but are also found along the shaley shoulders of U.S. Rt. 250 which bisects Highland County from east to west.

During August and September, it is easy to see yellow buckwheat (Eriogonum allenii), shale barren onion (Allium oxyphillum), shale goldenrod (Solidago harrisii) and shale aster (Aster oblongifolius).

Although the beauty and uniqueness of the Headwaters shale barrens are almost unsurpassed, several words of warning are necessary. Shale barrens are, by their nature, dangerous. The slope is very steep and the particles of shale slide readily over each other. Climbing the shale barrens is similar to trying to climb a slope of marbles. For your own safety and the well-being of the plants, please do not attempt to climb on the barrens themselves.

The barrens at Headwaters are ideal for viewing because almost all the shale barren plants occur here and a very nice gravel road runs along the base of the barrens. Everything that grows on these barrens can be viewed from the road so there is no need to endanger either yourself or the plants.

The barrens at Headwaters in Highland County can be reached by taking U.S. Rt. 250 from Staunton west to the hamlet of Headwaters. As you leave Headwaters, cross over Shaws Fork and make an immediate right turn onto Rt. 616. Park under the large trees on the banks of Shaws Fork. As you walk north along Rt. 616, Shaws Fork is on the right. The cliffs on the left are the Headwaters shale barrens. The best viewing is from the point where you left your car until you reach the point where the National Forest boundary leaves the road to the west. This boundary is marked by red blazes. Shaws Fork is private property, but the barrens are in the National Forest.

If you would like to safely get a higher view of the barrens, a National Forest trail starts from the parking area and ascends the log steps, up the ravine, and along the top of the cliffs. The trail is marked by yellow diamond blazes.

Enjoy the special habitat at the shale barrens in Headwaters, but for your sake and for the plants' sake, keep safety in mind at all times.

Illustration by Nicky Staunton

• Awards

(Continued from page 1)

member of VNPS to recognize achievement reflecting the goals of VNPS. It is hoped that this will be awarded annually.

Commendation - This will be awarded to a member/chapter/committee of VNPS for recent accomplishment of a long-term activity requiring unusual time or effort to the benefit of VNPS. Some examples would be: publication of a handbook, establishment of a nature trail or longtime committee service.

Distinguished Service - This award will be given for long-term service (10 years or more) to a member who has remained active in VNPS activities and has served in several capacities over the years. Only one award in this category per year.

Honor - This will be given to a non-member of VNPS, for instance an educator, physician, author or speaker, for exceptional accomplishment compatible with goals of VNPS.

Merit - This award will be given in recognition of a particular group, civic organization, scout troop or business that has conducted an outstanding conservation activity.

Selection of these honors will be within a calendar year. Completion of an activity qualifying for an award must be by the end of the calendar year. Nominees for the 1995 awards must have completed their activities by December 31, 1994.

Applications for the awards are available from each chapter president or board representative. Recipients should generally not be current board members.

Eriogonum allenii, yellow buckwheat

Illustration by Nicky Staunton

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May 1995
### Bulletin Reader Survey

The Bulletin editor and the Virginia Native Plant Society officers are always striving to meet the needs of the statewide membership in the best possible ways. We would like you to help us achieve this goal by giving your opinions and suggestions in the survey below. Please fill in the questionnaire and feel free to add any other thoughts on a separate piece of paper. For those who don’t want to damage their Bulletin, a photocopy of the survey will be fine. Mail your completed survey to: Virginia Native Plant Society, P.O. Box 844, Annandale, VA 22003. We look forward to hearing from you!

1. What do you like most about the Bulletin?

2. What do you like least about the Bulletin?

3. Should we publish: □ More often? □ Less often? □ At the current rate?

4. How much should we cover the following topics? MORE? LESS? AS IS?

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5. Viewing the Bulletin overall, should our coverage be more:

□ LOCAL (for instance, more space devoted to chapter activities)
□ STATE (restricted to happenings within the state of Virginia)
□ REGIONAL (Mid-Atlantic states, for example)
□ NATIONAL
□ GLOBAL

Comments

6. Looking at the Bulletin layout, would you like to see more graphics? How about maps? Photographs?

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7. Would you accept a dues increase if it were necessary to expand the number of pages, frequency of publication or to offset increased production costs of the Bulletin? □ YES □ NO

8. Additional comments and suggestions

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Chapter News

BRWS awards two student scholarships

Two students were honored with scholarships at the March meeting of the Blue Ridge Wildflower Society.

Michael Donahue, a student at Virginia Western Community College, is working toward a degree in biology. He is a self-taught naturalist from Roanoke.

James Houk, also a student at Virginia Western, is from the Back Creek/Bent Mountain area. He is working toward a degree in horticulture with an emphasis on landscape design.

Memberships given

The John Clayton Chapter has given three complimentary memberships for promoting VNPS aims. Honored were: Elsa Cooke of the Gloucester-Mathews Gazette-Journal for publishing awareness of native plants; William Jessie of the Virginia Department of Transportation for his concern for roadside wildflowers; and Chris Hickman, manager of Sandy Bottom Park in Hampton, for working with the chapter on identifying native plants.

Symposium

(Continued from page 1)

eral agencies to begin using environmentally and economically beneficial landscaping practices. The memo recommends controlling pollution by reducing fertilizer and pesticide use, recycling green waste and using water-efficient practices. Additionally, it calls for the use of regionally native plants where practical and cost-effective. A "native plant" in this case is defined as "one that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions." One definition of "regional" is within a 50-mile radius, but she didn't seem to think such a restrictive interpretation would be used.

In addition to efforts in planting wildflowers along highways, Ms. Harper-Lore said the Federal Highway Administration will work with state transportation offices, natural heritage departments and native plant societies to preserve and protect significant plant habitats whenever possible. She edits Green Roadsides, a quarterly newsletter for the highway administration, and will send it to any VNPS member interested in highway plantings. To be put on the mailing list, write: Greener Roadsides, Federal Highway Administration, 400 7th St., SW, Room 3240, Washington, D.C. 20590.

C. Colston Burrell, a VNPS charter member (Potowmack Chapter) and a free-lance writer and landscape designer living in Minneapolis, Minnesota, discussed landscaping from a homeowner's point of view. His approach to landscape design does not reject the traditional American yard, but attempts to integrate more native plants into it. The yard can continue to look the same with areas of grass, flower beds, shade trees and evergreen shrubs, and will function the same with space for various activities. However, substituting natives for some of the traditional exotic plants will contribute to a more interesting landscape and will provide habitats for a diverse collection of insects, birds and other animals.

This native plant symposium is held at the arboretum in early spring each year. To get on the mailing list for next year's event, write to Lahr Symposium, U.S. National Arboretum, 3501 New York Ave., NE, Washington, D.C. 20002.

Nancy Arrington Horticulture Chair
Augusta Springs offers variety in native plants and habitats

In 1994, the Shenandoah Chapter began an inventory of plants at Augusta Springs in the Shenandoah Valley west of Staunton. The area is being developed by the U.S. Forest Service as a Watchable Wildlife and environmental education area. The purpose of the inventory is to provide the forest service with information for use in interpretive signage and programs.

In March, 1995, the chapter presented the forest service with a preliminary list of over 180 species (exclusive of sedges, rushes and grasses). Now we would like to share this gem with you.

Augusta Springs is on the Deerfield Ranger District of the George Washington National Forest and is located along state route 42 about 15 miles west of Staunton. The designated environmental education area consists of upland woods and low-lying meadow, with the focus of our interest being the wet meadow. A spring-fed stream flows through the meadow, keeping the water table high even in dry summers. There are many remnants of human occupancy including foundations of a former resort or summer home and a bottling plant for the spring water.

The wet meadow puts on its best display from mid-summer until first frost. In July, southern rein orchis, Habenaria flava, and ragged fringed orchis, H. lacera, appear in the wettest areas. Whorled rosin-weed, Silphium trifoliatum, stands above the surrounding grasses. Later come the asters: Heath aster, Aster pilosus, purple-stemmed aster, A. puniceus, and calico aster, A. laterifolius. Spotted Joe-pye weed, Eupatorium maculatum, and New York ironweed, Vernonia nozaboracensis, add color for visitors and a treat for the butterflies. (See Augusta Springs, page 4)

Buffalo Creek Registry Site re-dedicated

The Buffalo Creek Nature Area, a VNPS Registry site, celebrated its 25th anniversary recently in a rededication ceremony which recognized the efforts of the Society.

The nature area was set aside by Westvaco 25 years ago. In the ensuing years, Westvaco has made many improvements and the company's new wildflower brochure recognizes this area as a VNPS Registered Site.

In May, around 200 people, including more than 20 from the Blue Ridge Wildflower Society, participated in the ceremony held at the site near Evington.

The celebration included a luncheon, music by VNPS President Frank Coffey and a brief address by Virginia First Lady, Susan Allen. Mrs. Allen emphasized the economic and environmental significance of areas such as Buffalo Creek. Sen. Charles Hawkins of Chatham also addressed the crowd, and stressed the importance of streams and forests for the enjoyment of future generations.

VNPS's Site Registry Program was recognized by Trenor Hypes, Westvaco Area Superintendent. A plaque describing the area as a VNPS (See Buffalo Creek, page 9)
From the President

I just returned from an enjoyable two days in Harrisonburg with the Appalachian Trail Conference where I led hikes to Elliott’s Knob and the Ramsey’s Draft Wilderness area. The members of my group were from Wisconsin, Pennsylvania, Washington, D.C., Florida and Virginia, and all were very interested in wildflowers and other plants. Most of the native plants we encountered were fairly common; however, at the top of our climb to Elliott’s Knob, we found a small purple fringed orchid (Habenaria psycodes). This was probably our most exciting find.

These hikes were in the George Washington National Forest and the severe gypsy moth infestation of the area was quite depressing. The oak trees looked like you would expect in the dead of winter and there were moths flying around almost everywhere. A forester and some workers were busy putting up moth traps as part of their monitoring program. Let’s hope that some satisfactory method of control for this problem is developed soon.

The Virginia Native Plant Society provided a number of hike leaders for the 26 natural history hikes co-sponsored by the Appalachian Trail Conference and the Potomac Appalachian Trail Conference. VNPS thanks all of the hike leaders who volunteered their time toward this project.

While driving through the mountains on Wednesday night, July 5, I also got a look at some of the severe flood damage around the Buena Vista area. The amount of boulders and mud that washed out of the mountains was incredible. The heavy rains and recent flooding have caused much damage in many areas of our state. Some of the PATC participants spent some of their conference time helping the flood victims in the Madison County region which was also hit hard.

In my own area, much damage was done to the Buffalo Creek Nature Area as a result of flooding after the dam break at Timberlake. As soon as we know what we can do there, our local VNPS chapter may organize a clean-up day or weekend to help with the clean-up efforts. Our first vice-president, Bob Eubank, who lives on the lake luckily suffered no severe damage to his property, but a bench was swept away. The loss of the 75-acre lake itself is, of course, severe enough to the habitat of the region.

On a happier note, please make plans to attend the VNPS annual meeting in Chester. Richard Moss and the Pocahontas Chapter have planned some great walks and events for us. SEE YOU IN CHESTER!

Your president, Frank Coffey

HELP WANTED
An enthusiastic volunteer with experience in advertising or graphic arts to design advertising for the Virginia Native Plant Society. In order to advance its programs, the Society needs to increase its membership base and extend its name recognition. If you would like to help, please contact:

Mark Gatewood, Publications Chair, 132 Wayburn Street, Churchville, VA 24421 or call 540-337-8113.

Meeting suggests revisions to alien plant list

Sixteen people representing nine different organizations met in Richmond in February to discuss possible changes in the list of invasive alien plants published jointly by the Virginia Native Plant Society (VNPS) and the Department of Conservation and Recreation (DCR).

The meeting was the result of an earlier meeting with representatives of the Virginia Nurserymen’s Association (VNA). At that meeting, it was recognized that other organizations might want to be involved. The February meeting included the following representatives:

Virginia Nurserymen’s Association (VNA)
Natural Resources Conservation Service

Virginia Chapter of the American Association of Landscape Architects
Lewis Ginter Botanical Garden
Department of Horticulture of Virginia Tech
Department of Game and Inland Fisheries
The Nature Conservancy
Department of Conservation and Recreation (DCR)
Virginia Native Plant Society (VNPS)

Just the number of organizations wishing to participate in the meeting gives some indication of the scope of interest in the subject of invasive alien plants.

During the meeting, VNA was somewhat critical of the published list (See Plant list, page 9)

Purple loosestrife draws more criticism

During the first week of May, VNPS received a copy of a news release that could hardly have been better news.

Under a dateline of April 7, 1995, the Virginia Department of Agriculture and Consumer Services highlighted purple loosestrife, Lythrum salicaria, and mile-a-minute-weed, Polygonatum perfoliatum, and warned gardeners and property owners “not to buy purple loosestrife in any form, even those plants labeled sterile.”

This is the first time VDACS has offered a helping hand on purple loosestrife and it comes as very special news indeed. The news release itself is a great piece of material for chapter conservation chairs to use in discouraging garden centers and local nurseries from selling any purple loosestrife. Copies of it were included with copies of the conservation chair report at the June board meeting. Your chapter representative who attended the board meeting should have a copy.

Ted Scott, Conservation Chair
For Wildflower Gardeners

Water gardens provide way to beat the heat

When the heat and humidity of summer take the fun out of conventional gardening, my small water garden is a pleasant spot. Water at least feels cool and always attracts an interesting variety of wild creatures. Low maintenance—no watering, fertilizing, weeding, dead-heading, staking—also makes water gardening attractive to the environmentally correct, and lazy, gardener!

Arrowhead, lizard's tail and pickerelweed are three attractive summer flowering natives I've enjoyed growing. All are emergents, meaning roots and lower stems are under water and leaves and flowering stalks are above water. They grow naturally in marshy areas throughout the eastern United States and are suitable for the edges of natural ponds or can be grown in pots with two to six inches of water over the pot. They are very hardy and may quickly outgrow their allotted space if planted directly in the soil of a small pond.

Arrowhead, Sagittaria latifolia, named for arrow-shaped leaves that grow two to four feet tall, is native throughout Virginia. Flowering stems bear clusters of small three-petaled white flowers in widely spaced whorls of three. Native Americans harvested the tubers and dried and stored them for winter use. Arrowhead is also called duck potato because ducks, swans and muskrats eat the tubers.

Lizard's tail, Saururus cernusus, grows in most Virginia coastal and Piedmont counties. It will grow in soil that stays just slightly moist throughout the summer and blooms in almost full shade. Stems are two to four feet tall and have slender terminal flower spikes that droop at the tip resembling a lizard's tail or shepherd's crook. Flowers smell sweetly of vanilla and the dark green ovate leaves have a slight citrus fragrance.

Pickerelweed, Pontederia cordata, occurs naturally in Virginia's coastal plain and into the Piedmont. Its waxy elongated leaves grow two to three feet tall. It blooms throughout the summer with spikes of closely spaced tiny violet-blue flowers that attract bees and butterflies.

Because of its emphasis on native plants, I've found Waterscaping by Judy Glattstein (Garden Way Publishing, 1994) especially helpful. Many local nurseries and garden centers have installed water gardens and sell a variety of native wetland plants. Plants are also available from nurseries on our "Nursery Sources of Native Plants" List. To obtain one of these lists, send a SASE to: VNPS, P.O. Box 844, Annandale, VA 22003. As with all native plants you purchase, be sure you are buying propagated, not wild-collected, plants.

Nancy Arrington, Horticulture Chair

Webster Springs offers spring beauty right next door in W.Va.

An early May weekend begun in gentle cool spring showers along spring wildflower-lined roads turned into sunny days in neighboring West Virginia. The occasion was the 33rd Webster Springs Nature Tour sponsored by Webster Springs Garden Club and West Virginia Department of Natural Resources. We stayed at a rustic and unpretentious 4-H camp with wildflower gems, like painted trillium, Trillium cernuum, and yellow-root, Xanthorhiza simplicissim, at our toes.

Friday's registration was followed by refreshments, delicious family dinner and an evening program of Appalachian music. The Saturday tours included: Elk River Backfork, Bishop's Knob, Elk Mountain, and Leatherwood. The tours ranged from easy strolls to the Elk Mountain challenge (accepted by Doris True).

Saturday evening we gathered around an open fire with the full moon peeking through the smokehole at our excited, tired troop. Tour review, local storytelling, prizes, dulcimer music by Mark Goings of the Shenandoah Chapter, plus marshmallow roasting brought the trip to a satisfying end.

Special wildflowers on our list: gay wings, yellow mandarin, twinleaf, spur violet, phlox, mitrewort, Jacob's ladder, trillium, wild hyacinth, Fraser sedge, Fraser magnolia, Carolina Claytonia, wild geraniums, pink lady-slipper, trailing arbutus, rose twisted stem, squirrel corn, maidenhair fern, (See Webster Springs, page 10)
Canada's Bruce beckons VNPS members

The mist of Niagara Falls lured us across Niagara River from New York into Canada and up the Queen’s Express Way to Guelf and northward through orchards, then cattle ranches, finally from very open country to fields with ever-increasing juniper, northern white cedar, tamarack and white birch in the rocky landscape.

We had yet to learn that the Bruce Peninsula was under water only 4,000 years ago, yielding a limestone base responsible for rich florescapes. Nor were we aware that our roads were passing through Native American land...Algonquin Obijway/Saugeen. We knew that we were travelling between Lake Huron and Canada's Georgian Bay to a peninsula midpoint from which we could take day trips to visit an unusual abundance of orchids. Ted Scott and Dr. Donna Ware, co-leaders, met 9 VNPS members and 3 members of the New England Wild Flower Society at Wildwood Lodge, Ontario for a week of “Flwers Sauvages de l'Escarpment Niagara” - or wildflowers!

My third trip was the latest date of our June Bruce trips and we hoped to see the showy lady slippers in full bloom--the previous two years their buds had been tantalizingly slow in opening. Our friend Cypripedium reginae was ready for us this trip! We saw several groups of 40 plus in fresh, full bloom. Sometimes we found them in the shallow wet ditches by the roads. (In Virginia there is one remaining location of this regally tall, 3-foot orchid and it has only 10 to 15 stems). Other roadside flowers that greeted us were the cheerfully bright yellow lady's slipper, Cypripedium calceolus; Indian paintbrush, Castilleja coccinea; starry Solomonseal, Smilacina stellata; and blue-eyed grass, Sisyrinchium montanum.

Sunday our arrival coincided with a surprise visit by Bobby and Freda Toler of the Blue Ridge Wildflower Society. Touring Canada and knowing VNPS folks were arriving, they "dropped by" Wildwood Lodge. They had already found a European twayblade in bloom. After lunch, a Loesel's twayblade, Liripis loeselli, had us prostrate, photographing.

Dorcas Bay Singing Dunes was our first destination: ramsheds orchids, Cypripedium arietinum; bunch flower, Cornus canadensis; twinflowers, Linnaea borealis; striped coralroot, Corallorhiza striata; butterwort, Pinguicula vulgaris; pitcher plants, Sarracenia purpurea; and sundews, Drosera rotundifolia. Nearby Crane River Park was rich in slender rock-brake ferns, Cryptogramma stelleri, on rock face outcroppings, plus nodding trillium, Trillium cernuum; Canada anemone, Anemone canadensis; and ostrich fern, Matteuccia struthiopteris. Moving to Dyer's Bay Crossroad, we saw Robert's oak fern, Gymnocarpium robertianum on the limestone pavement with green spleenwort, Asplenium viride.

Anticipation filled us Monday when a heavy fog delayed our boat to Flowerpot Island. Once there, the trail by the Niagara escarpment led us to flowerpot formations. Calypso orchids, Calypso bulbosa and spring ephemerals, which had already bloomed back home, greeted us.

South to Sauble Beach Sand Dunes on Tuesday where we visited Hooker's orchid, Habenaria hookeri and had a bonus round by finding bracted orchid, Habenaria viridis. Cathedral Woods ferns were: Goldie's, Dryopteris goldiana; maidenhair, Adiantum pedatum; holly, Polystichum lonchitis; hart's tongue, Phylitis scolopendrium; tiny for-me-nots, Myersia arvensis; and blue cohosh, Caulophyllum thalictroides. Virginia waterleaf, Hydrophyllum virginianum, was also present. Petrel Point was next where we encountered white bog orchid, Habenaria dilatata; cottongrass, Eriophorum sp.; bladderwort, Utricularia sp.; wood lilies, Lilitium philadelphicum; and...Cypripedium reginae...40 plus blooms.

We celebrated Summer Solstice by visiting Walker's Woods and gold thread, Coptis trifolia; cranberries, Vaccinium macrocarpon; plus bog bean, Menyanthes trifoliata. The afternoon Bruce Caves trip: walking fern, Phylitis scolopendrium in a rich habitat sustaining a family of sharp-loped hepatica, Hepatica acutiloba on a huge boulder. After supper we visited atop a sand dune to see the rare moonwort, Botrychium lunaria.

Thursday's Oliphant Bog enriched us with calopogon, Calopogon tuberosa; rose pogonia, Pogonia ophioglossoides; and false aspodel, Tofieldia glutinosa. At Howdendale, blooming large roundleaf orchids, Habenaria orbiculata; and white adder's mouth orchid, Malaxis monophyllos, were firsts for many.

Friday was a free day and by Saturday we were homeward bound. We had seen snipes, loons, butterflies, red-eared and snapping turtles (laying eggs). Even now my heart is thankful for the creation of such beauty and also for those who know the treasure and share it. Ted Scott and Donna Ware were extremely generous in sharing their knowledge, as was Dorothy Bliss. The 1996 VNPS Bruce Trip will be announced in a future Bulletin. Background reading on the Bruce can be found in The Bruce Beckons, by W. Sherwood Fox.

Nicky Staunton, 2nd vice president

• Augusta Springs

(Continued from page 1)

As summer wanes, cardinal flower, Lobelia cardinalis, great lobelia, L. siphilitica, and sneezeweed, Helinium autumnale, define the wetter parts of the meadow. The best seems to be saved for last. In September, and continuing until killing frosts in October, the startling blue of the bottle gentian, Gentiana clausa, appears throughout the meadow, bringing the season to a climax.

To date, we have found nothing rare or endangered on the site. With its array of colorful and attractive plants, Augusta Springs has great potential as an area where visitors can enjoy and learn about native plants and habitats. It is also a tremendous education resource for area schools as it will be the only developed environmental education area in western Augusta County.

IF YOU WISH TO VISIT - The area is still being developed. The first work on the area was the addition of a small pond, constructed, with the assistance of Ducks Unlimited, to attract waterfowl to the viewing area. A loop boardwalk trail, bird observation blinds by the pond and a parking area are planned. Student Conservation Association crews have worked the past two summers on the boardwalk loop. Visitors may find portions of the loop closed due to the continued construction. Until the boardwalk is completed, you can expect to get wet feet. For more information, contact Deerfield Ranger District, Rt. 6, Box 419, Staunton, VA 24401 or call 540-885-8028.

Mark Gatewood, Publications Chair

August 1995
Fabulous Fall Flowers on the Fall Line

The Pocahontas Chapter invites you to the Virginia Native Plant Society Annual Meeting
September 15 - 17, 1995

Make plans now to attend the 1995 VNPS Annual Meeting in Richmond. We will meet to enjoy fascinating speakers, share a sumptuous banquet, conduct a little business, take enlightening field trips, bid on exciting auction items, renew treasured friendships and find some new, stimulating ones.

The Pocahontas Chapter is excited to have everyone join them in exploring a wide variety of habitats to seek out many rare and unusual plants to be found around the fall line of the James River. The James River weaves a complex path through the many flora and fauna species native to the Piedmont area. Adding to its travels is a long history of colonialism and confederacy which creates a unique heritage of human evolution and natural diversity.

Weekend Schedule of Events
Friday, September 15

5 - 7 p.m. Registration and acceptance of auction items at the Howard Johnson in Chester.
7 - 8 p.m. Social Gathering - enjoy the company of other members.
8 - 10 p.m. Guest Speakers - Dr. Hal Horwitz will kick off the weekend with a tantalizing slide show of wildflower images set to inspiring music. Dr. Horwitz is a pediatric dentist who scours the countryside for the perfect photo of many obscure wildflowers. His photographs have appeared in Virginia Wildlife magazine.

Dr. John Hayden will follow with a slide program on the many members of the Euphorbia family that can be found in Virginia. He will bring a new understanding and appreciation to these often forgotten plants. Dr. Hayden holds the D.A. Kuyk Chair at the University of Richmond's Biology Department.

Saturday, September 16

7 - 8 a.m. Registration and acceptance of auction items at the Howard Johnson in Chester.
8 a.m. - 4 p.m. Trips, Tours, Hikes, and Paddles
4:30 - 5:30 p.m. Social Hour and Silent Auction - also preview of live auction items.
6 - 7 p.m. Buffet Banquet
7 - 8 p.m. Live Auction - bring dollars and enthusiasm as the bidding can get competitive!
8:30 p.m. Keynote Speaker - J. Christopher Ludwig, botanist for the Virginia Department of Conservation and Recreation, Division of Natural Heritage, will delight you with his illustrated presentation on “New and Exciting Botanical Finds in Virginia.” He has just published an exhaustive study of plants in the Compositae family.

Sunday, September 17

9 a.m. - 2 p.m. Board Meeting - held at the Howard Johnson in Chester. All society members are invited to attend.

Field Trips - Saturday, September 16

1. All Day - Enjoy the beauty of some of our most pristine freshwater marshes from the vantage point of a canoe. Come join us on the scenic Pamunkey River at the nature Conservancy's Cumberland Marsh Preserve where we will have an opportunity to see yellow pond lily, pickerelweed, duck corn, arrow arum, wild rice and the rare, federally listed sensitive joint-vetch. One way travel time is approximately one hour. All equipment and basic paddling instruction is provided. Involves moderately strenuous activity and may result in wet feet, so dress appropriately. Deadline for trip signup is August 23 and cost is $25. Please include payment for canoe trip in registration.


3. Morning - Explore the cypress swamps and upland woods of Flowerdew Hundred on this working farm situated amid important bald eagle habitat along the James River. View historical and archeological sites spanning four centuries. Located in Prince George Co., approximately 20 miles driving distance.

4. Morning - Tour with the horticulturist of Maymont to see the formal gardens and then explore off the beaten paths to discover woodland wildflowers.

5. Morning - Stroll through Henricus Park on the south bank of the James River through riparian forest. A boardwalk facilitates study of swamp forest and a beaver impoundment on a former river channel. Trail ends at historic 1611 site of Henricus settlement. Approximately 5 miles driving distance.

6. Morning - Explore Point of Rocks Park and its extensive woodland trails and boardwalk across a tidal marsh with many wetland plants and animals. The boardwalk includes observation towers to stretch the view along the Appomattox River.

7. Afternoon - On the "Falls of the James" the pony pasture in James River Park offers woods and meadows with many fall wildflowers and impressive views of river rapids. Approximately 13 miles driving distance.

8. Afternoon - See Flowerdew Hundred trip description 3.


August 1995

Page 5
Lodging and Meeting Accommodations

Howard Johnson in Chester (formerly Holiday Inn) is located at the intersection of Route 10 and Interstate 95 (exit 61B) south of Richmond. Accommodations are being offered to VNPS members at the reduced rate of $39 per night. You must tell the hotel that you are registering for the VNPS meeting to receive this special rate. Please call the Howard Johnson - Chester directly at 804-748-6321 to secure reservations. There are a limited number of rooms available at this special rate so call and reserve your room now!

Registration Information

The registration fee is $10 per adult which includes admittance to the Friday evening presentation, the field trips (note the canoe trip has an additional charge) and a box lunch on Saturday. Members registering by September 1 will be entitled to a 25 percent reduction in the registration fee resulting in a fee of only $7.50! All registrants will receive confirmation by mail with maps of the area and additional information. The Saturday night buffet banquet is an additional charge and reservations must be noted on the registration form.

Please look at the list of field trips carefully; many have a limited number of spaces available. Because we want everyone to receive the best experience possible, we ask that you sign up in advance for field trips. Please mark on the registration form your first and second choice for field trips for each time slot. Field trips are first come, first served. Notice that the canoe trip is asking for an extra fee in advance. Please register early! You will receive a registration confirmation in the mail which will tell you for which field trip you are registered. If you decide at the annual meeting to switch to another trip, you may do so on a space available basis. A bulletin board will be available to list your requests to trade spots on full field trips. Information will be provided on many area attractions to enjoy after the meeting.

Walk-in registration will be accepted at the regular fee of $10 on Friday night and on Saturday morning.

Auction Items Needed!!!

You have the opportunity to participate in an exciting and fun-filled evening on Saturday at the VNPS silent and live auctions! You will have a rare chance to purchase that special gift for yourself, your family or your friends for the upcoming holidays.

Your help is needed on two levels; to participate in the bidding and to contribute your unique and wonderful items to be auctioned. You can contribute anything that has to do with nature including writing paper, t-shirts, garden produce, jams and jellies, crafts, books, outdoor equipment and everyone’s favorite - plants! You can ask local nurseries, book stores and garden centers for items to contribute. We will list the contributor at the auction which will help their advertising. Many businesses will be happy to contribute something to support VNPS.

Donations will be accepted at the registration tables on Friday night and Saturday morning. Please have a brief description of the item and an approximate value as well as the name of the contributor written on a piece of paper. If you are unable to attend the meeting but wish to contribute something you can send items to Richard Moss, 12565 Brook Lane, Chester, VA 23831.

We need your help to make this major fund-raising event a success.

**VNPS Annual Meeting Registration Form**

If postmarked by September 1
Number of adults attending activities ______ X Registration fee of $7.50 each = $ ______
After September 1
Number of adults attending activities ______ X Registration fee of $10 each = $ ______
Number attending banquet ______ X Banquet cost of $18 each = $ ______
Number requesting field trip #1 (canoe trip) as first choice ______ X Fee of $25 each = $ ______
TOTAL ENCLOSED = $ ______

Please list field trip choices by number for each person registering:

First registrant
1st Choice a.m.____ p.m.____
2nd Choice a.m.____ p.m.____

Second registrant
1st Choice a.m.____ p.m.____
2nd Choice a.m.____ p.m.____

Third registrant
1st Choice a.m.____ p.m.____
2nd Choice a.m.____ p.m.____

NAME__________________________
ADDRESS________________________
DAY PHONE NUMBER ___________ EVENING PHONE NUMBER ___________
Make checks payable to VNPS
No reservations will be held without payment

Send to: VNPS Annual Meeting
7077 River Pine Court
Mechanicsville, VA 23111

Page 6 — August 1995
The following slate of candidates is proposed by the 1995 VNPS Nominating Committee to replace officers, standing committee chairs, directors-at-large, and members-at-large of the Nominating Committee whose terms expire on October 31, 1995, and to fill existing vacancies in other classes.

Class of 1996
DIRECTOR-AT-LARGE - search continues

EDUCATION CHAIR - Effie Fox, Piedmont Chapter. Effie is just completing six years on Piedmont’s Board as Education Chair. She is the Environmental Education Coordinator at the Fauquier Outdoor Lab, the county’s environmental and natural history resource center.

Class of 1997
MEMBERSHIP CHAIR - Phoebe White, Piedmont Chapter. Phoebe has been an active member of VNPS since its inception and has served in this capacity since 1982. She is currently the recording secretary for the Piedmont Chapter.

PUBLICATIONS CHAIR - Mark Gatewood, Shenandoah Chapter. Mark has served a term in this position and is involved with the USDA Forest Service plant inventory at Augusta Springs. He is the Building and Grounds Superintendent at the Museum of American Frontier Culture.

HORTICULTURE CHAIR - Nancy Arrington, Prince William Wildflower Society. Nancy, a charter member of the society, has served as Horticulture Coordinator since 1988. She is currently the editor of the Prince William Wildflower Society’s newsletter. She is part of the family-owned printing business, Arrington and Sons.

Class of 1998
RECORDING SECRETARY - search continues

FIRST VICE-PRESIDENT - Bob Eubank, Blue Ridge Chapter. Bob has served in this capacity on the state Board and as a Director at Large. He is active in the Blue Ridge Chapter, having served as Second Vice President. Bob also belongs to the Lynchburg Bird Club and is interested in habitat design.

TREASURER - John White, Piedmont Chapter. John, a charter member of the society, has served in this capacity since its inception in 1982. He is currently the President of the Piedmont Chapter.

DIRECTOR-AT-LARGE - Caren Caljouw, Pocohontas Chapter. A botanist at the Division of Natural Heritage for the Virginia Department of Conservation and Recreation, Caren has worked on a variety of projects involving native species; exotic species; and management plans of natural area preserves.

DIRECTOR-AT-LARGE - Cris Fleming, Potowmack Chapter. Cris is currently serving in this position, and has served on the Board as Education Chair. She has worked for the Audubon Naturalist Society, and is a consulting field biologist working for the Maryland Natural Heritage Program.

1996 Nominating Committee (One Year Term) - search continues

1995 Nominating Committee: Ann Regn, chairman, Jefferson Chapter; Sylvia Sterling, John Clayton Chapter; Ann Crocker, Potowmack Chapter; Nicky Staunton, Prince William Wildflower Society; Ted Scott, VNPS Board member, Jefferson Chapter.

PROXY, 1995 VNPS ANNUAL MEETING

I hereby authorize the Corresponding Secretary to cast my vote for the slate of candidates proposed by the Nominating Committee

Signed_____________________________________
Address_____________________________________

Return by September 13 to: Corresponding Secretary, VNPS
P.O. Box 844
Annandale, VA 22003

PROXY, 1995 VNPS ANNUAL MEETING

I hereby authorize the Corresponding Secretary to cast my vote for the slate of candidates proposed by the Nominating Committee

Signed_____________________________________
Address_____________________________________

Return by September 13 to: Corresponding Secretary, VNPS
P.O. Box 844
Annandale, VA 22003

Easy mailer: Fold this page in half, affix postage and drop in the mail.
Your vote helps us reach our quorum for the Annual Meeting.
Virginia Beach

Award good news for native plant lovers

Those who enjoy native plant gardens will be interested to hear that the Virginia Beach Garden Club has recently won the prestigious 1995 Founders Fund Award of the Garden Club of America.

The $20,000 award will help the garden club create the Coastal Woodland Garden at the Virginia Marine Science Museum in Virginia Beach.

The club has been involved with the museum since its opening in 1986 and is committed to a three-phase program of environmental conservation and education at the museum emphasizing the three local natural habitats: marsh, upland and woodland. In 1990, the club established in the upland habitat an award-winning native plant/wildflower garden which it continues to maintain.

The award money will be used to enhance a partially wooded peninsula along Owls Creek. Natural trails will be prepared with plantings of native trees, shrubs and wildflowers along with nesting boxes and feeding stations for the wildlife. The garden will be part of the museum’s 45-acre salt marsh preserve.

The museum staff and volunteers will present daily programs for visitors, who are expected to reach 650,000 when the current expansion program is finished next year.

Lee Moomaw, who heads this program for her club, is also president of the South Hampton Roads Chapter of the Virginia Native Plant Society. "We are overjoyed to win this honor. This will be a great opportunity to continue educating the public about the value and beauty of native plants," she said.

The national award was presented to just three clubs across America, and this marks the first time in 17 years that a Virginia project has been chosen.

Mt. Cuba offers VNPS visitors a rare treat

A two-hour tour of the woodland gardens at Mt. Cuba was the unique pleasure of 24 Virginia Native Plant Society members and three guests this past May. Mt Cuba is a private garden at the home of Mrs. Lammot duPont Copeland near Wilmington, Delaware. Mrs. Copeland is a VNPS life member.

The Mt. Cuba garden ranks among the finest gardens composed almost entirely of native plants on the East Coast according to this writer, who organized the visit.

The Mt. Cuba garden is located in a sizeable grove of tulip poplars, Liriodendron tulipifera, planted in what was a corn field in the mid-1930s when the Copelands acquired the property. Pathways of bark lead one past large beds of the healthiest native woodland plants one is likely to find, and the diversity of species and cultivars is immediately impressive.

Some rare species are present as well. Handsome specimens of swamp pink, Helonias bulbata, a plant found in only a few locations in Virginia and federally listed as threatened, was seen. Near the swamp pink were pitcher plants, sundew and cardinal flower which all add vivid color later in the season.

Since the property is not open to the public, only groups especially interested in plants can arrange a visit by appointment. To arrange a visit during the prime time of blossom usually means making reservations one or two years in advance. VNPS will sponsor a repeat visit to Mt. Cuba for its members in May of 1997. Watch the Bulletin for a sign-up notice in early 1997.

Ted Scott, Conservation Chair

"Pull Party" at Roosevelt Island

In the continuing battle to protect wildflowers on Theodore Roosevelt Island in Washington, D.C., The Virginia Native Plant Society will be holding a "Pull Party" October 21 from 10 a.m. to 1 p.m.

As part of a year-round National Park Service effort involving Boy and Girl Scout troops, local schools and other interested organizations, VNPS will do its part by pulling English ivy and other invasives from the wildflower patches on the island. The visit also provides an opportunity to check on last year’s efforts.

The area cleared last year near the footbridge had an impressive display of wildflowers, including trout lily, this spring. Near the swamp, efforts at removing invasive aliens were so successful that the native vegetation is now flourishing.

Those interested in pulling in the fall should bring a bag lunch (drinks will be provided), work gloves, and wear long sleeves as a precaution against poison ivy.

Workers will break for lunch around 12:30, but those with stamina may continue working or take a walking tour of the island with a National Park Service naturalist.

Members of the Potomac Mack Chapter will be offering hospitality to out-of-town guests for the night of October 21. Registration is necessary by October 1 for overnight accommodations and by October 10 for the Pull Party.

For more information or to register, contact: Abbie Duchon, Conservation Chair-Potomac Mack Chapter VNPS, 6408 81st Street, Cabin John, MD 20818 or call (301) 320-0358.

The fall pull party will be followed by a plant survey next spring...Watch for details.

The Annual Meeting of the membership of the Virginia Native Plant Society will be held on Saturday, September 16 at Howard Johnson in Chester, Virginia, to receive reports and to elect certain officers, directors, and members of the Nominating Committee. Those persons who have paid dues for the 1994-1995 fiscal year may vote on the business conducted. Members in good standing who are not able to attend the meeting may vote in absentia by sending the proxy on the enclosed insert to: Elaine Smith, Corresponding Secretary, VNPS, P.O. Box 844, Annandale, VA 22003. Proxies must be received by September 13, 1995. Each family membership is entitled to two votes; individual memberships to one vote.

Elaine Smith, Corresponding Secretary
In the 1812 edition of the New York Medical Repository there was an anonymous report entitled "A Disease in Ohio, ascribed to some deleterious quality in the Milk of Cows."

The report established certain facts. People who drank milk in those days often suffered from what was called the "milk sickness," and frequently died from its effects. Individuals who did not drink milk did not suffer from the disease. People who stopped drinking milk usually recovered from the symptoms of the ailment. Cows and horses pastured in the woods frequently became ill and often died, but recovered if put into "cultivated pastures."

The author of the 1812 report speculated that a toxic plant might cause milk sickness. He was right, but the answer was slow in coming.

Milk sickness was a frequent cause of illness and death in the rural South and Midwest during the 19th century, sometimes killing as many as half the people in a particular settlement. It is well documented that Nancy Hanks Lincoln, Abraham Lincoln's mother, died of milk sickness in Indiana, perhaps causing the Lincoln family to move to Illinois.

It has been estimated that 10 to 25 percent of those afflicted died. As a major cause of misery and death, it was all the more frightening because "milk sickness was a frequent cause of illness and death in the rural South and Midwest during the 19th century, sometimes killing as many as half the people in a particular settlement."

In cattle and horses, the disease was called the "trembles" because of the trembling of the afflicted animals. In humans, it was called the "slows," from the physical inertia which it produced in its victims.

In 1860, William Jerry of Madison County, Illinois collected what he thought was a common nettle, a plant known to make excellent greens. It was cooked for his dinner and he ate it, noting its peculiar taste. Fortunately no one else in the family ate it, because Jerry became ill with the classic symptoms of milk sickness and did not recover completely for several years.

In 1867, the Missouri Republican, a St. Louis newspaper, published an account of Jerry's illness and identified the plant he had eaten as white snakeroot, Eupatorium aegeratoïdes. Since then, there have been two major changes of the plant's Latin name, first to E. urticaefolium (referring to the similarity of the leaves with Urtica, the genus of nettles) and then to E. rugosum. The third edition of the Atlas of the Virginia Flora uses Ageratina altissima.

The discovery of the identity of the plant that caused milk sickness was given wide publicity and its validity was confirmed by subsequent investigators. By the end of the 19th century, it was common knowledge to most farmers that the "trembles" and the "slows" could be avoided by keeping livestock out of the woods where E. rugosum grew. The plant is rarely found in open pastures.

In the late 1800s and early 1900s, there were unsuccessful efforts to link milk sickness with a bacterial origin. In 1927, a chemist at the U.S. Department of Agriculture isolated the toxic principle of E. rugosum and called it trematol. Later chemical investigations firmly established the chemical structure of the toxin. It has also been found in Rayless goldenrod, Aplopappus heterophyllus, and Aplopappus fructicosus. A recent chemical literature search finds no trematol references since the 1960s.

When a frontier farmer was getting started, he usually had no pasture for livestock except in the woods. There is evidence from the literature that livestock eat E. rugosum only in times of drought, when other forage is scarce. So, in some years a farmer might lose no stock and then might lose many in subsequent years in the same area. It must have been a very perplexing—and dangerous—puzzle.

Theoretically, the biological menace of E. rugosum remains unabated today, but there is some evidence that the plant's content of trematol may vary depending on locality. In 1961, it was noted by the last chemists to work on E. rugosum that five cows died from eating the plant in the Illinois patch from which their samples were taken. The plant is also toxic to horses, sheep and hogs. The best review of literature on milk sickness is in The Journal of Economic Botany, 19, 293-300 (1965).

The Atlas of the Virginia Flora lists about 23 species or varieties of the Eupatorium genus. Some of them, such as boneset (E. perfoliata) and Joe-pye weeds (several species) have been reported to have medicinal properties. One Eupatorium that grows in fields is upland boneset (E. sessilifolium).

William Minor, Jefferson Chapter Bill Minor is a retired chemist who worked for a pharmaceutical company for a number of years. Upon retirement, he returned to his native Charlottesville and has become active in the Jefferson Chapter of the Virginia Native Plant Society.

August 1995
Plant List
(Continued from page 2)
list of invasives because no distinc-
tion was made in it between those
plants doing great damage and those
that are invasive but doing
relatively little harm. It was em-
phasized that by grouping all the
plants in one list, the relatively
benign plants were being tarred
with the same brush as the very
worst ones. We consider this a
valid criticism. It was suggested
that the list be divided into three
levels of relative damage in order
to categorize the relative damage
or threat to native habitats.

Others suggested that it would
be helpful to have the list orga-
nized into groupings of trees and
shrubs, vines, and herbaceous
plants with an indication of which
herbaceous plants are annuals and
which are perennials. This sugges-
tion agrees substantially with the
Buffalo Creek
(Continued from page 1)
Registry Site was installed near the
creek trail entrance. Following a rib-
on cutting ceremony, several groups
under VNPS leadership conducted
trips along the creek trail.

Although most of the early
spring flowers were no longer con-
spicuous, the yellow foliage and
fruits of dwarf ginseng dotted the
stream banks. This population con-
tinues to spread further along the
margins of the creek. Masses of
mountain laurel in full bloom cov-
ered the rocky prominences near the
hemlock grove.

Dorothy Bliss, Registry Chair

-Plant List
- Buffalo Creek

See the address label for your membership's expiration date.

VNPS Membership/Renewal Form

Name(s)__________________________

Address__________________________State____Zip____

__Individual $15  __Family $25  __Student $10

__Patron $50 __Sustaining $100 __Life $400

__Associate (group) $40; delegate__________________

To give a gift membership or join additional chapters: Enclose dues, name, address, and
chapter. (Non-voting memberships in any other than your primary chapter are $5).

I wish to make an additional contribution to ___VNPS _______________ Chapter
in the amount of: $10 $25 $50 $100 $__________

__Check here if you do not wish your name
to be exchanged with similar organizations.  __Check here if you do not wish
to be listed in a chapter directory.

Make check payable to VNPS and mail to:

VNPS Membership Chair, Route 1 Box 381, Delaplane, VA 22025

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Frank Coffey, President
Nancy Sorrells, Editor
Barbara Stewart, Artist

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Macintosh text file to the Editor at Rt. 2,
Box 726, Greenville, VA 24440.

The deadline for the next issue is Oct. 10
Chapter News

Shenandoah Chapter produces sowing booklet

The Shenandoah Chapter has recently published a 24-page booklet, "Things to Know before You Sow: Tips on Seed Propagation."


Fisher is Professor Emeritus of Biology at James Madison University and is a popular writer, lecturer, workshop leader, master gardener and orchardist.

Included in the booklet are sections and illustrations addressing the following topics: the anatomy and makeup of a seed, seed dormancy, scarification enhancement, stratification enhancement, seed collecting, and hand harvesting, threshing and cleaning.

"Seeds are such commonplace things," writes Fisher in his introduction. "It is very easy to take them for granted and to be totally unaware of their fundamental importance. Fact is, within seeds rest all the greenescapes for now and forever."

The booklet will be featured at the Annual Meeting in September. It is also available for $2.50 and $1 postage from The Shenandoah Chapter, c/o Elizabeth Kyger, Rt. 3, Box 126, Bridgewater, VA 22812.

Keep those surveys coming!

The VNPS board and the Bulletin editor are pleased with the number of returned surveys. The critiques are well-thought out and we are gaining a better understanding of what you want. It's not too late to be heard. Send survey to: VNPS, P.O. Box 844, Annandale, VA 22003.

Chapters asked to close books on ironweed items

The Virginia Native Plant Society needs to clear the books on the 1995 Wildflower of the Year shirts, tote bags and viewing guides.

Chapters are asked to please turn unsold items in to VNPS at the Annual Meeting for sale there or to purchase the items by submitting the required amounts to John White, our state treasurer. The 1995 Wildflower of the Year shirts and totes, featuring New York ironweed, are limited edition items and make great gifts. It would be good for chapters to have a few on hand for future sales, gifts to guest speakers or for special recognition projects.

• Webster Springs
  (Continued from page 3)

Some "memory photos" - The forests of healthy hemlock towering, glistening rhododendron. Homes with Quaker ladies smothering the grass; a rickety footbridge which Jay alone crossed, and hostess, Stella Riffle, a gentle poet and campfire storyteller.

Webster Springs 1996 will be the first weekend in May. See you there?

Special appreciation this year goes to Jay Shaner, Tim Williams, Doris True and Vernon Garber for sharing the knowledge that such an unusual wildflower habitat and tour exists so close to Virginia.

Nicky Staunton, 2nd Vice President

Virginia Native Plant Society
P.O. Box 844
Annandale, VA 22003
Garden Club honors VNPS efforts

The Virginia Native Plant Society was the recipient of two awards recently at the Garden Club of America's Zone VII meeting hosted by the Virginia Beach Garden Club. Both were a result of the Society's education and conservation efforts regarding invasive exotic plants.

The first award, presented at a tea and reception, was the Ann Lyon Crammond Award given jointly to VNPS and the Virginia Department of Conservation and Recreation for "an exceptional educational exhibit which increases the knowledge and appreciation of plants."

The judge's comments concerning the exhibit, which was displayed at the Tidal Treasures Show, noted that the display was "eye-catching and concise," and increased the public's awareness to "the danger of invasive exotic plants which are sometimes planted in gardens."

The second award, which was accepted by VNPS President Frank Coffey at an evening banquet, was presented by the Garden Club of America to VNPS for the Society's "significant and valuable work in educating the public about our rich heritage of native plants and the dangers that threaten them."

This award was given in recognition of two highly successful VNPS programs. The first, carried out by the Piedmont Chapter, was the program of presenting Sara Stein's book, Noah's Garden, to developers in the Northern Virginia area. The second was the invasive alien plant program conducted jointly by the Virginia Department of Conservation and Recreation and VNPS.

Ted Scott
Conservation Chair

Invasive Alien Plant Project goes high tech

The Virginia Department of Conservation and Recreation and the Virginia Native Plant Society are pleased to announce the presence of the Invasive Alien Plant Project and related fact sheets on the Internet. Net browsers can access the information on the World Wide Web. The Virginia Natural Heritage Program Home Page provides an attractive and practical means of learning more about invasive alien plants in Virginia.

The URL for VNHP's homepage on the Internet World Wide Web is: http://www.state.va.us/dcr-dnh/vaher.html. (See related story page 6)

INSIDE THIS ISSUE

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• Wildflower gardening..........Page 5
From the President

What would the world be, once bereft
Of wet and of wildness? Let them be left.
O, let them be left, wildness and wet;
Long live the weeds and the wildness yet.
Gerard Manley Hopkins

I recently found the Hopkins poem in Earth Prayers From Around the World, edited by Elizabeth Roberts and Elias Amidon and published by Harper Collins. It poses a question that is important to each of us and aptly expresses our feelings for native plants and wild places.

It was an honor and pleasure for me to accept an award from The Garden Club of America (GCA) recognizing VNPS's work in conservation education. Please read Conservation Chair Ted Scott's article with details of the award as well as one given for his invasive exotic plant display at the Zone VII Garden Club of America meeting hosted by the Virginia Beach Club.

The GCA award was the result of two different conservation-education efforts. The first, Piedmont Chapter's program promoting Noah's Garden by Sara Stein is an example of an individual chapter successfully planning and executing a worthy project.

The second effort leading to the award is the Invasive Exotic Plant List and Fact Sheet program. This program is a wonderful example of VNPS, working through its Conservation Chair and teaming with the Department of Conservation and Recreation's Natural Heritage Division to make conservation-education materials available to organizations, groups, VNPS members and other concerned individuals.

Congratulations to our Piedmont Chapter, Conservation Chair Ted Scott and Caren Caljouw at the Department of Conservation and Recreation's Division of Natural Heritage for the dedicated work that made this award possible. Caljouw is also a new VNPS Director-at-Large.

VNPS encourages continued chapter involvement in local projects that increase the public's awareness of the importance of "wet and wildness."

Your President, Frank Coffey

Reader survey results have been compiled

"Thank you" to all who returned our reader survey. From your responses, it appears that the Bulletin is meeting your expectations as to appearance, content and frequency of publication. We have taken note of some constructive criticisms regarding type and readability and will work with our printer to address these issues. When we summed up the results from the question of topics, the most requested topic was articles on places to go to see wildflowers. A "where to go" article will be a regular feature from now on.

Rising paper costs have become a concern. To stay within budget, we may have to drop an issue or go to a lower quality paper. We hope you will bear with us should any of these measures become necessary. You will notice that the issues are now punched so that you may keep back issues of the Bulletin in a 3-ring binder. This was an excellent suggestion from one of our readers.

Our Bulletin serves two very important functions. It is the internal medium of communication within the society, promoting cohesiveness among a diverse membership. Also, it represents VNPS to the larger conservation community through交换 and complimentary mailings to other organizations. With your vote of confidence, we hope to continue with a high-quality publication.

Mark Gatewood
Publications Chair

Mark Gatewood
Publications Chair

November 1995
Close-out prices on ironweed totes

VNPS is offering the New York ironweed tote bags at the incredible price of $6 each plus $2 for postage and handling. Ironweed was the VNPS 1995 Virginia Wildflower of the year. These canvas bags will make excellent holiday presents. The bags, while they last, may be ordered by sending a check to either: VNPS, P.O. Box 844, Annandale, VA 22003 or to: Frank Coffey, P.O. Box 137, Concord, VA 24538. They are a one-of-a-kind item, so order a couple today!

VNPS decal, patch

The Virginia Native Plant Society window decal is still available. Show your pride in Society membership and help get our name and logo out in the public eye. To order the decal, send $2.09 per decal, plus a SASE to: Mark Gatewood, Publications Chair, 132 Wayburn Street, Churchville, VA 24421. Checks to VNPS.

The VNPS patch, embroidered with the Society logo, is available from: Phoebe White, 3924 Cobbler Mt. Road, Delaplane, VA 22025. Checks for $4.25 to VNPS.

Books, booklets, pamphlets, notecards

Orders for the following items can be sent to John and Phoebe White, 3924 Cobbler Mt. Road, Delaplane, VA 22025 (Prices include tax, shipping and handling)

1. Five beautiful designs of Virginia wildflowers in pen and ink, drawings by VNPS staff artist Barbara Stewart, are available on iceblue paper with matching envelopes. A set consists of 10 cards, two of each design. The cost per set is $7.80.


3. Ferns and Fern Relatives of Virginia: A checklist. Compiled by Bliss, a helpful guide to your quest for ferns throughout the Old Dominion. $1.50

4. Wild Orchids of the Middle Atlantic States. This hardcover guide by Gupton and Swope describes 52 species of the rarest wildflowers in 8 states with color photographs. $15.06

5. Wetlands. This Audubon Society nature guide by William A. Niering is a comprehensive field guide, fully illustrated with color photographs. $18.67

6. A Garden of Wildflowers. This 290-page paperback by Henry W. Arthur includes 101 species native to North America. Useful information on propagation and culture is included with tables for pH preferences and soil moisture conditions. $15.53

7. The Great Forest, John Clayton and Flora. This intriguing 121-page paperback by VNPS member Harriet Frye describes the work of Colonial American botanist John Clayton (1693-1773). $16.95

Seed sowing guide

The Shenandoah Chapter still has copies of its recently published 24-page booklet, "Things To Know Before You Sow: Tips On Seed Propagation." The booklet, by Dr. Elwood Fisher, originally appeared as a series in the chapter newsletter.

Included in the booklet are sections and illustrations addressing the following topics: the anatomy and makeup of a seed, dormancy, scarification enhancement, seed collecting and hand harvesting, threshing and cleaning.

The booklet is available from The Shenandoah Chapter, c/o Elizabeth Kyger, Rt. 3, Box 126, Bridgewater, VA 22812. $3.50 includes p&h. Checks to Shenandoah Chapter.
Common Virginia asters to identify

- **Aster divaricatus** (white wood aster) - The wavy nature of the stem is conspicuous, along with the white rays. It is common in the woods of western Virginia. The basal leaves are heart-shaped and petioled.
- **Aster cordifolius** (blue wood aster) - Like the white wood aster, the stem is wavy. The rays are blue, and the basal leaves are heart-shaped and petioled. It is found in rich woods.
- **Aster macrophyllus** (large-leaved aster) - The basal leaves are significantly larger than above. Rays vary in color from white to deep purple. It is thought that this species hybridizes with the white wood aster, forming a third species, Aster schreberi. Found in rich woods.
- **Aster undulatus** (wavy-leaved aster) - The basal leaves are again heart-shaped. The key character is the petiole, which dilates or expands somewhat toward the base of its attachment to the stem. The petiole thus appears to wrap about the stem. Often the upper leaves clasp the stem. The rays are blue. It is found in rich woods.
- **Aster patens** (late purple aster) - The stem leaves are cordate (heart-shaped), but there is no petiole. These leaves strongly clasp the stem, especially about mid-stem. Rays are blue-purple to violet. It is found in dry woods and along roadsides.
- **Aster novae-angliae** (New England aster) - This is native, but there are also several ornamental varieties. The stem leaves are auriculate and without a petiole. The rays are bright reddish-purple, rose or sometimes blue. More common in open areas with a lot of sun.
- **Aster prenanthoides** (crooked stem aster) - The stem leaves are contracted into a strongly clasping petiolar base. The rays are numerous, and blue-violet. Common along moist stream banks in the woods.
- **Aster puniceus** (purple-stemmed aster) - The leaves do not have a petiole, and the stem is quite red or purplish. The stem is villous (hairy), and the leaves are scabrous (rough) to the touch. The rays are blue-violet to pink. This aster is common in wet habitats.
- **Aster linarifolius** (stiff leaved aster) - The leaves of this aster are stiff, rigid, linear and without serrations of any kind. It prefers the dry bluffs at higher elevations. The rays are violet.
- **Aster peterus** (toothed white-topped aster) - The rays are white. The basal leaves have petioles, and are oblanceolate to spatulate. It is common in dry borders of woods. This aster flowers in June through August, while all of the others described here flower August to October.
- **Aster acuminatus** (whorled or wood aster) - Found only at our high mountain altitudes. The rays are white. Leaves do not have a petiole, and tend to gather into a tight whorl just under the inflorescence. Sometimes the rays are tinged with purple. Might represent genetic contact with northern species, Aster nemoralis. They coexist in New England.
- **Aster lateriflorus** (calico aster) - Rays are white, but disc flowers in the center are purplish, making it stand out from the others which have yellow disc flowers in the center of the inflorescence. The stem is slender with wide-spreading branches. Common on the edges of woods.
- **Aster simplex** (tall white or panicled aster) - The rays are white. The leaves are without a petiole, lanceolate, acute with or without serrations. Common in wooded areas, roadsides and moist thickets.

Aster expertise offered as guide

Asters are members of the Composite family. This family is rather young in terms of its time on the planet. Thus, it is still forming and evolving. Asters in this family are defined as having either white or purple ray flowers which are fairly few in number, with yellow or purple disc flowers, also few in number. The most common ones have heart-shaped basal leaves. Others have lanceolate leaves which may or may not clasp the stem.

There is an ornamental market for this genus. Most of the selections are of the purple-red rayed group. Popular because they are fall-flowering, their leaves are soon deciduous, leaving fairly bare-stemmed specimens with pretty flowers in excellent condition. This, however, makes identification difficult.

Another identification problem is that these plants hybridize almost at will. Their methods of reproductive isolation have not yet been perfected. Thus, when these hybrids, which are usually fertile, populate the landscape, they make matters worse by hybridizing with their parents. Plants have no moral sense at all! The resultant variation can survive through selection, and what you will see are specimens which have a mix of characters which cause much confusion to the casual observer.

I became involved with asters in the summer of 1969 when Radcliff Pike, an extension agent for the University of New Hampshire, finished his Ph.D. thesis on three species which he thought were hybridizing in nature. The morphological study was excellent, showing how the characters could mix between and within populations. I thought it would be nice to cross the two parental species in a greenhouse, obtain the hybrids and determine if this synthetic population was comparable to the natural populations. I went through a three-year breeding program of crossing, (See Hints, page 5)
For Wildflower Gardeners

Native trio attractive for any fall garden

Looking forward to fall's many beautiful asters, goldenrods and sunflowers keeps gardeners going through the dog days of summer. Three that have become favorites of mine because of their permanence, low maintenance and beauty are aromatic aster (Aster oblongifolius), cordate-leaf goldenrod (Solidago sphacelata) and swamp sunflower (Helianthus simulans). They grow together in slightly acid garden soil of average fertility in an area that gets morning sun and afternoon shade. Despite this summer's record heat and drought, and no supplemental watering, these three superior natives are blooming beautifully in mid-October and will continue into November.

Also called shale barrens aster, the aromatic aster occurs on poor, alkaline soils in open dry areas from Minnesota east to Pennsylvania and south to Texas. In Virginia, this uncommon species grows only in a few northern and western counties. Stiff, almost woody, hairy stems are two to four feet tall. By the time flowering starts in October, plants are a dense tangle of pale green, dusty looking, sticky foliage that is aromatic when crushed. Plants sprawl into a very attractive mound covered with hundreds of one-inch lavender blue daisies with golden centers. Plants never need staking and don't require frequent division to remain vigorous. They continue blooming through light frosts.

Unlike the little known aromatic aster, cordate-leaf goldenrod is well known in the selection 'Golden Fleece,' a 1990 introduction from Mt. Cuba Center for the Study of Piedmont Flora in Delaware. The long golden wands of this plant are an attractive color and shape contrast for the mounding aromatic aster.

The species grows in open woods and rocky sites throughout the southeast including scattered western and central Virginia counties. Stems three feet long grow from heart shaped based leaves and branch into numerous flowering stalks densely packed with tiny golden yellow flowers. Stems arch toward the ground making this goldenrod a good groundcover or front-of-the-border plant. It grows well in sun or shade beginning to flower in late September and continuing for a month or so.

I have grown late flowering sunflowers labeled narrow-leaf (Helianthus angustifolius) and willowleaf (H. salicifolius), both with very narrow rough leaves and neither lasting more than a season in my garden. However, swamp sunflower (H. simulans), has proved to be dependable and adaptable as well as handsome. It may be listed as H. angustifolius, but its six-inch-long leaves are up to an inch wide. According to my catalog source, it is native to the southern coastal plain, but is hardy in my zone 7 garden, growing equally well in dry and moist areas.

Strong stems can reach 8 to 10 feet, but I usually cut my plants back in early summer. Clusters of two-to-four-inch flowers begin opening in mid-October. Early frosts will damage flowers, but won't affect unopened buds which will continue to open well into November.

Although wildflower gardeners know better, some American gardeners think asters, goldenrods and sunflowers are suitable only for naturalistic gardens or meadows, but this, beautiful, well-behaved trio would be at home in the most sophisticated beds and borders.

Nancy Arrington
Horticulture Chair

Hints given on better aster identification
(Continued from page 4)

backcrossing, producing recombinants, and the like. I also examined the chromosomes of the species in question, and did a crude chemical "fingerprint" of chemicals called phenolic compounds in the leaves.

When I arrived at Bridgewater College in 1972, I became interested in the entire genus, which in Gray's Manual totals about 65 species. I undertook a 7-year study of all the asters in Virginia and published it in Castanea, the journal of the Southern Appalachian Botanical Club. In Virginia there are 39 species. It took me three weeks of bachelor living and no sleep to write a key to such a large and amorphous group.

The list on page 4 takes you through some of the common species and explains how to identify them.

So there you have it. The pictures in the manuals are fairly accurate, but you have to be careful with some of the "picture" books. Good luck in your aster search.

Michael Hill, Shenandoah Chapter

Dr. Michael Hill, a biology professor at Bridgewater College and a charter member of the Shenandoah Chapter, did his doctoral work on asters.
From Near and Far

Plants visit schoolchildren in North Carolina

The North Carolina Botanical Garden has launched a program that takes plants into the classroom. Called the "Visiting Plant Program," the program introduced plants into local schools. Each month a new, live plant and a packet of information about interdisciplinary teaching ideas associated with that plant were taken to the classroom. For two to three weeks, that plant became the focus for special units in science, math, social studies, art and multicultural studies.

A variety of classroom projects have been launched as a result of the visiting plant program. One classroom established a dialogue with a staffperson at the Center for Population Biology in California. Another class wrote a petition to have a plant's name changed. Computer time lines, experiments, stories and myths, medicinal properties and plant biology are ways in which the plants have been linked to the classroom.

Among the plants which visited the North Carolina schools in the 1994-1995 school year were: goldenrod (Solidago rugosa), purple aster (Aster purpuratus), flowering dogwood (Cornus florida), stinking cedar (Torreya taxifolia), dandelion (Taraxacum officinale), Jack-in-the-pulpit (Arisaema triphyllum) and cumbine (Aquilegia canadensis).

This information was taken from the North Carolina Botanical Garden Newsletter. For more information on the Visiting Plant program, contact Nancy Easterling at 919-962-0522.

Internet surfers can find plenty of wildflower info

These days, one doesn't necessarily have to go outside to see nature in action. Native plants and wildflowers are getting plugged in on cyberspace. Those with internet access should check out the following addresses:

- There is The Wildflower Page at http://rampages.onramp.net/~garylipe. This page includes wildflower information on all 50 states.
- Net browsers might also check on Graves Herbarium at Connecticut College. It is located at: http://herbarium.conncoll.edu.
- The Flora of North America is also on-line at: http://fna.wustl.edu/fna.
- In Holland, there is a man who has his own botanical homepage at: http://www.euronet.nl//users/mbleeker/.
- An on-line key, complete with photographs of all the Wisconsin orchids can be found at: http://library.wisc.edu:80/biotech/demo/orchid/orchids_of_wisconsin.html.
- The University of Georgia Botany Department has a page at http://dogwood.botany.uga.edu/.
- There is also a taxacom mail list on the internet.

Dig Magazine offers a variety of gardening topics

Dig Magazine advertises itself as being the publication "for the gardener in everyone." Published out of Burtonsville, Maryland, the monthly magazine is currently in its second year of publication.

Typically 24 pages in length, Dig includes features like "A Meadow Creation: Fern Valley's Old Field Meadow," "A Wild Garden: Woodland Gardens," and "Garden Pests." There is also a resource section which contains a calendar of events.

Dig is free for those who can find it at libraries, nurseries, arboretums and gardens in the Washington, D.C. metropolitan area. In northern Virginia, the Arlington and Fairfax libraries have copies. Copies can also be located at Green Spring Gardens Park, Meadowlark Gardens Park, Meadows Farms, National Wildlife Federation-Laurel Ridge, River Farm and Mt. Vernon Plantation.

For more information, call 1-800-219-8408 or e-mail at: Dig@interramp.com.

Annual meeting deemed successful

After much planning and hard work, the 1995 annual meeting got under way with about 85 registrants. On Friday night, two speakers were scheduled. Unfortunately, Dr. Hal Horwitz was unable to attend but kindly lent his show which came with music and recorded commentary about orchids. Dr. John Hayden presented an interesting program on the Euphorbia family.

Saturday dawned cloudy and threatening rain. The all-day canoe trip, started with an hour of instruction. Then participants paddled along Holts Creek in the Nature Conservancy's Cumberland Marsh Preserve. They observed fresh water plants, including the federally protected sensitive joint-vetch (in bloom), wild rice and cardinal flowers.

Half-day trips visited the James and Appomattox Rivers. At Point of Rocks Park on the Appomattox, a woodland trail led to a boardwalk across a tidal marsh. Along a spit of land were ironweed, gentian, cross vines, mallows and large native azaleas. Along the boardwalk were marsh plants including a wild rice, button bushes and rattlesnake master.

At Flowerdew Hundred, a working farm on the James, participants viewed unusual plants along small arc beaches between stands of cypress trees. At Henricus Park, also along the James, members viewed marsh and riverbank plants.

Many registrants enjoyed walks at Richmond's James River Park with its woodlands, meadows and views of the river's rapids. There was also a tour of Virginia Miller's moss garden located on the James

Saturday evening, a most welcome rain started. It had not rained for weeks and some marsh plants seen on the field trips were withering. The auction was lots of fun and raised about $1,700. After the auction, Chris Ludwig of the Virginia Department of Conservation and Recreation, spoke on "New and Exciting Botanical Finds in Virginia."

Richard Moss
Pocahontas President

November 1995
South Hampton Roads native garden thriving

The Lynnhaven House Native Plant Beds, a project of the South Hampton Roads Chapter, has done well this year through the volunteer efforts of several members.

A picture of the garden was included in the new second edition of Gardening with Native Plants of the South by Andy and Sally Wasowski.

Wildflowers (Continued from page 1)

White to pink with age are attributes that contribute to interest in Trillium grandiflorum.

Large-flowered trillium is found in rich woods, coves, and on slopes. It is more restricted in distribution statewide than the 1995 Wildflower of the Year, but it is hoped all will agree that it is a fitting selection for this honor in 1996.

The VNPS Board also announces selection of fringe tree, Chionanthus virginicus, as the 1997 Virginia Wildflower of the Year. This announcement comes one year in advance to further develop publicity for the Wildflower of the Year and to invite VNPS members to participate in a planned photography competition (details will be provided in the spring Bulletin).

Fringe tree, like large-flowered trillium, was selected for its beauty and interesting biology. It is found growing in rich soils along streams but also can be found on slopes to elevations of 4,000 feet. It is widespread in distribution throughout Virginia.

These two Virginia Wildflowers of the Year will be used to promote more widespread understanding of the ecology and beauty of our rich botanical heritage.

Chris Sacchi
Botany Chair

The planting will provide a habitat for birds, butterflies and other insects and create a landscape reminiscent of when it was part of the old Eastern State Hospital Farm.

The area was mulched this spring and seedlings were started. VNPS members met this fall to plant perennials and scatter seed.

VNPS staff artist

Barbara Stewart, Virginia Native Plant Society Staff Artist, has once again provided the Society with an accurate and artistic depiction of the Wildflower of the Year which in 1996 is Trillium grandiflorum. She has graciously provided our Wildflower of the Year art work over the years and we regret the omission of proper credit to her in our "New York Ironweed Wildflower of the Year 1995" brochure. Please accept our apologies Barbara. We really appreciate your work!

Pricey trillium

The VNPS 1996 Wildflower of the Year commands high dollars according to the August-September 1995 issue of Garden Design. At the Delaware Center for Horticulture’s annual Rare Plant Auction held this past April, a Trillium grandiflorum went home with a pricetag of $100!

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Next issue deadline is Dec. 10.
Sign up now for journey to the Bruce in June '96!

For the fifth year, members of the Virginia Native Plant Society will journey to Canada's rich botanical treasure, the Bruce Peninsula, to observe a show of orchids and other flora that keeps drawing some people back season after season. Led by the VNPS Conservation Chairman, Ted Scott, himself a seasoned veteran of the Bruce, the trip should prove an enjoyable outdoor experience.

The fifth annual botanical trip to the Bruce Peninsula of Ontario, Canada is June 15-22. This will be another opportunity for members to revel in the profusion of wildflowers, especially native orchids, that are found on the Bruce. "We have seen 27 species of orchids in past visits and in 1992, 21 species were in bloom," noted trip leader Scott, who has already made six trips to the Bruce.

Last year only nine persons registered, so the trip this year will be limited to eight people with an equal number from the New England Wildflower Society. The group arrives at the Bruce June 15 and departs June 22. Because it is slightly over 700 miles from Central Virginia, most people use two days to make the trip.

The total fee for VNPS members is $450 (annual dues are $15 for non-members). This covers all room and board for the week plus a boat trip to and from an island where some of the rarer species are found. Participants will arrange their own transportation to and from the Bruce. Registrants will be provided with a list of those going in order to facilitate carpooling and travel arrangements. After arrival, group members carpool each day, sharing the driving chores as equitably as possible. "The lodge where we stay for the duration of our visit has always provided very adequate accommodations. The food has been excellent and seems to improve each year," Scott added.

A $50 deposit reserves the first eight places. Excess deposits will be returned and names placed on the waiting list in the order received. The balance is due March 15. Cancellations prior to March 15 that are not filled from the waiting list will forfeit deposit. Cancellations after March not filled from the waiting list forfeit the entire amount.

If you are considering a trip to this wildflower paradise, talk to any of the 60 VNPS members who have already been, or read about last year's trip in the August '95 Bulletin.

Please send all deposits (payable to VNPS) and questions to: Ted Scott, 12493 Spicewood Road, Orange, VA 22960-2201; 540-672-3814.

Three recognized at annual meeting for their statewide work with the Society

Three Virginia Native Plant Society members who have served the Society at the local and state level were recognized for their hard work at the annual meeting hosted by the Pocahontas Chapter this past September.

Liz Smith was presented a Trish Hendershot stained glass piece in recognition of her many years of dedication as Recording Secretary.

Tim Williams was presented a certificate recognizing his outstanding work as Education Chair. Holly Cruser was also presented with a certificate, recognizing her work both as a Director-at-Large and as the Awards Committee Co-chair.