

Chinquapin

The Newsletter of the
Southern Appalachian Botanical Society



Vol. 2, No. 3

Fall 1994

From The Editor's Desk.....

Summer is a busy time for everyone and I have few letters to the editor since the last issue. I am sure you have been aware of the world of plants, whether you live in the Southwest or Northwest where the dry weather has resulted in the massive fires or heat or here in the East where we have been deluged with rain or storms. From space it must appear that the West is getting browner (or blacker) while the East is becoming greener. I realize these generalizations may not apply everywhere (Piedmont North Carolinians, for example, were enduring a drought on into July when it was raining almost every day at Highlands, NC). But somehow we are much more weather conscious, if for no other reason that so many of us have paid an economic price for property destruction by various forces of weather and nature. But is it not amazing how quickly the vegetation responds! Blackened earth regreens with vigor after a fire in the West while "opportu-

nistic weeds" cover earth slides or muddy patches in the East. I still say 'I never cease to be amazed at the ability of Cullowhee to regreen itself.' This is especially true for those of us blessed with the presence of black locust (*Robinia pseudoacacia*). And speaking of this species, is it a leaf minor that is causing the summertime browning in Kentucky, Tennessee, and now just north of Asheville, NC?

In late summer I seem to be deluged with calls and questions about my prediction for good fall leaf color. My experience suggests that droughty years with increased stress on the tree growth results in outstanding fall color. Last year was droughty for much of the region and here in the southern Appalachians at least, we had one of our best fall leaf color in years. This year the weather has been the opposite and I predict that we will have little color. Most tourist oriented organizations and the media do not wish to hear this, so we cushion our comments to explain that fall color will be "spotty," meaning that in the drier sites there will be color but that widespread good color

will not be prevalent. But we all know that there are so many factors that contribute to color (even a spraying of herbicide can result in exposure of the other pigments), that color prediction must be classed in the same category as weather prediction.

You might recall that last year we mentioned a problem with maintenance of herbaria in various institutions. As space becomes a premium with increased building uses, lack of funds for expansion, changes in emphasis of disciplines in our research institutions, lack of endowments, etc., one of our most valuable documentary institutions, the herbarium, is being relegated to "other quarters." John Herr, Professor Emeritus of The University of South Carolina, contributed an excellent and thought provoking essay on the future use of herbaria by the "molecular scientists." I am sure you will find his article enlightening.

Dick Smith's 'Look Again' features *Lobelia*, an interesting genus. We planted *Lobelia siphilitica* in our Native Plants Garden (featuring species described in Hamel and

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Welcome To Our New Members:

It is our pleasure to have the following join our organization: Rebecca Barwick, Asheville, NC; William Crowell, Keene, OH; Nancy Dew, Athens, OH; Jamey Donaldson, Jonesborough, TN; Julie Evans, Decatur, GA; Anne E. Lubbers, Danville, KY; Steven Mace, New Haven, WV; George Rossbach, Buckhannon, WV; Timothy Walters, Toledo, OH; Lynn Wellman, Atlanta, GA; and Irwin A. Unger, Athens, OH.

"The fields and hills are a table constantly spread."

—Henry David Thoreau

Letters to the Editor...

Letters To The Editor...

John Herr, Jr., of Columbia, SC writes:

You will find enclosed my essay, "A New Role and Mandatory Responsibility for Herbaria." I believe the message ...is important and should be considered by as broad a collection of botanists as possible.

[Ed. Note: Thanks for the very carefully written and thought-out essay. I hope this encourages those who are busy working up the genetic maps and genome descriptions of various species an alternative to cryopreservation, a much more expensive and perhaps much less

efficient use of resources than can be offered by the much more simple herbarium. Dr. Herr may be contacted at the Department of Biological Sciences, The University of South Carolina, Columbia, SC 29208, phone 803/777-4141 or fax 803-777-4002.]

A New Role and Mandatory Responsibility for Herbaria

J. M. Herr, Jr., Department of Biological Sciences, University of South Carolina.

Two years ago, a prominent botanist died and left behind a rather extensive and important herbarium. The collection included a number of type specimen duplicates for species he had described over the long period of his career. Fortunately, the botanist's family recognized the importance of the collection and, therefore, attempted to donate it to one of the major universities in the Southeast. A member of the faculty in the Biology Department of that institution, himself a prominent botanist, strongly suggested that the family seek another repository, since the department was moving toward a molecular emphasis. To his mind, the collection would be more appreciated elsewhere. His attitude is not unique. Does a herbarium have any place in a Molecular Biology Department? Several taxonomists to whom I have asked this question gave a quick and emphatic response in the negative. What possible place indeed! Cast the scene of this event in 1932 instead of 1992 and imagine that a prominent botanist discouraged the gift of an outstanding private herbarium because the department was moving toward a cytology emphasis, and the collection, therefore, would not receive much attention or appreciation. I believe that botanist would have been reprimanded, for throughout the 1930's and 40's when recording chromosome numbers for species fell on the cutting edge of botany, taxonomists eagerly advised specialized cytologists as to the value of the voucher specimen. The lesson was so easy and derived from the answer to a single question. "Where, Mr./ Ms. cytologist, is the lasting evidence that

the set of chromosomes you have characterized actually came from the species you have designated?" And so today, accuracy and error can be recognized in the thousands of annotated voucher specimens collected in the course of cytological investigations. Less success was achieved in enticing plant physiologists to the ritual of preparing voucher specimens. The question, "Just how many specimens of Alaska Pea and Golden Bantam Corn do you need?" never quite got answered, and that perhaps accounts in part for the reluctance of plant taxonomists to communicate with molecular botanists. Molecular botanists today are isolating numerous mutant lines from populations of genetically transformed plants representing a rather broad range of species diversity. The art and science of genetic transformation centers largely on two genera, *Arabidopsis* and *Nicotiana*, and presently taxonomists do not appear ready to deal with the question, "Just how many specimens of Mouse ear Cress and Tobacco do you need?" The answer is once again so simple—"As many as the number of transgenic plants! Never in the history of botany has the value of the voucher specimen been greater. Presently, transformed plants are retained *in vitro* for future work, i.e., in cell-line cultures vulnerable to permanent loss. Taxonomists should pose the question, "Where, Mr./ Ms. molecular botanist, is the lasting evidence that the gene sequence you have reported actually belongs to the specific mutant form you have designated?" The answer must not be, "Well, we maintained the mutant in cell culture until the power

went off during the Christmas holidays, and the samples we sent Smith's lab were lost as well." It should instead simply be, "Specimen number 63,842 in the New-Wave Herbarium of Progressive University."

Recently, a molecular botanist visited the A. C. Moore Herbarium at USC in order to examine specimens of *Pogonia ophioglossoides* (L.) Ker, *Isotria medeoloides* (Pursh) Raf., and *Cleistes divaricata* (L.) Ames (Orchidaceae). Her intent was to extract DNA from the leaves, but unfortunately, these specimens did not include packets of extra parts that would have contained the material needed. At least, however, the label information provided a clear path to the populations from which the specimens were collected. Some herbaria require that packets of extra parts be attached to all specimens accessioned, a practice well advised for all herbaria. At the very least, all herbaria should require that packets of available plant fragments should be attached to all specimens of transgenic plants and to all those of threatened and endangered species.

Taxonomists, morphologists, curators and herbarium directors, and all others who are generally regarded as "traditional botanists" should urge their colleagues engaged in molecular investigations to submit specimens of the plants they study (or in some cases create) to the herbarium closest at hand. A standard specimen should include a packet amply supplied with all fragments available; roots, stems, leaves, flowers, and fruits. The nature of the packet and preparation of the dried plant material should follow a generally accepted standard which

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Congratulations to Mellichamp and Matthews

President Larry Mellichamp and former two-time President Jim Matthews of the Department of Biology at the University of North Carolina at Charlotte are recipients of two coveted awards. Larry received the 1994 Meritorious Teacher Award by the Association of Southeastern Biologists and Jim is to receive the Governor's Award for Excellence in September. Larry received the award at the annual meeting in Orlando this

past April for his "wide recognition as an outstanding teacher, in and out of the classroom. Larry has directly and profoundly influenced [numerous] ...botany students...and literally hundreds of nonprofessionals.... He is a popular speaker for garden clubs, professional societies, and non-professional organizations" (ASB Bull. 41:160-161). Jim was selected as one of ten recipients for the "highest honor that a State employee may receive for

dedicated service to State government and the people of North Carolina." He was recommended on the basis of his long-time effort in developing protective programs for natural areas with his county and with the State Natural Heritage Program as well as his continued professional programs at UNCC in teaching, research (especially in biology and management of rare species), and other service activities.

A New Role Cont.

hopefully will evolve as this concept captures the imagination of concerned botanists. The following recommendation is offered for your consideration, and perhaps it will generate a better idea. The packet should be of the sealable translucent (glassine) type which, unlike the more traditional paper capsule, would flatten evenly and readily reveal its contents. In any case, the packet should protect its contents from humidity fluctuations. With dimensions of 4 X 4 inches, the packet would fit well on the lower left-hand corner of the sheet, away from the specimen label and annotation labels that might be added. Any part of the plant that the packet will accommodate should be included. Where possible, however, the parts should be divided into fragments no larger than 2 cm long, 1 cm wide, and 0.5 cm thick. For easy handling, leaves should be cut into long rectangles. Stems and roots should be split longitudinally if thickness exceeds 3 mm. Where feasible, flowers and fruits should be split longitudinally regardless of size, and compact inflorescences (Compositae) exceeding 1 cm in width should be quartered longitudinally. Ideally, the material should be divided fresh and air dried or lyophilized. It should not be subjected to the heat of standard herbarium driers. Records should be kept regarding the contents to include the time of any removal and the identity, amount, and use of that material. Molecular botanists should also be encouraged to store dried cell cultures of transgenic plant tissue in the herbarium. Lyophilized callus

tissue, placed in sealed glassine packets, would provide a readily available source of DNA peculiar to specific transgenic plants. These packets could be stored in the manner used for paper capsules containing Bryophytes and other small specimens.

The procedures recommended here would have the immediate effect of preserving the entire plant genome for study far into the future. In the short term, they would provide the means for the verification and refinement of genetic maps. In the future, plant material in specimen packets may represent the only remaining source of DNA from the endangered species of today destined for extinction. Beyond these values, as significant as they are, the practice of these procedures would provide a climate of cooperation among botanists from widely separated extremes of the discipline to the great enhancement of the science of plants.

Book Corner

[If you know of books that might be of particular interest to the lay readers of our organization, please submit a brief review for consideration-Ed.]

"There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from the furnace. To avoid the first...one should plant a garden...to avoid the second...lay a split of good oak...."

-Aldo Leopold
Sand County Almanac,
1949. p. 6.

From the Editor's desk cont.

Chiltoskey's Cherokee Plants (available from Mary Chiltoskey, Cherokee, NC, for only \$2.00, but you might include another for postage and handling) on the Western Carolina University campus this year. The Great Blue (it's beautiful as a garden planting!) is doing fine, with all this rain, and its little first cousin, *L. inflata*, has been trying to fill in all the remaining spaces. Incidentally, have you noticed this subfamily (Lobelioideae) has milky juice, a distinct aid in determining small rosettes of the genus.

I talked briefly to Jim Matthews at the University of Charlotte and he says the meeting of the herbaria curators is still planned for the Association of Southern Biologists (ASB) meeting in Knoxville April 19-21, 1995. He recommends those of you who might wish to make a presentation contact him or Gene Wofford at The University of Tennessee at Knoxville.

Larry Mellichamp tells me that we completely sold out of mugs, T-shirts, and sweatshirts at the American Institute of Biological Sciences meetings in Knoxville in August. So it might be time for us to get some more materials worked up for our annual meeting with ASB in Knoxville.

Incidentally, these two professors who have both contributed so much and continue to contribute in many ways to our organization, are recipients of two of the more prestigious awards in our region, Jim as the Governor's Award of Excellence for 1994 and Larry as the Outstanding Teacher of the Association of Southeastern Biologists for 1994. It makes us all proud to be associated with such fine public servants. Congratulations to you both!

Core Arboretum To Observe Its 20th Anniversary In 1995

Core arboretum at West Virginia University, was established in 1975 by the renaming of the West Virginia University Arboretum to honor Dr. Earl L. Core, the committee chairman who helped establish the facility in 1948. It is located on the Evansdale Campus of West Virginia University at Morgantown. The Arboretum occupies a 50-acre tract that contains open mowed areas, a wooded hillside, and moist bottomland along the Monongahela River. Several hundred species of native trees, shrubs, and herbaceous plants may be seen along approximately three miles of trails leading through the area. Spring flowers are a major attraction between early April and early May. If you happen to pass through West Virginia you might plan to stop by the arboretum for a visit. A pamphlet describing the arboretum and map of trails is available from the Curator, Department of Biology, West Virginia University, Morgantown, WV 26506.

Native or Exotic?

—Reprinted with slight modification from Garden Associates Quarterly 4: 1-4 by Larry Mellichamp.

The native plants of our state are evoking much interest these days. Perhaps it is because we want to know what is true-to-home and "real" for our region. On a more practical note, we desire to sort the weeds from the wildflowers, or to grow only those plants that are well-adapted to our climate by virtue of having evolved in our locale. It is easy for me to define the terms; it is often more difficult to accept the facts about some plants that we have taken for granted. It is most difficult to know with certainty what is truly primeval in a region.

Native means that the plant in question is from this place, that it originated here and has been found here all along. Living where we do means that a plant grew in our region in North America before European settlers arrived. Immigrants brought new and different plants with them, plants that

(Reprinted from: Shortia, Autumn 1993, Newsletter of the Western Carolina Botanical Club)

Lobelia is an extensive genus that is well represented in the tropics, where some species attain enormous stature. Ours are of modest size, however, and the two largest species (and perhaps the most familiar) have individual flowers less than 1 1/2 inches long. They are Great Blue Lobelia (*L. siphilitica*), with prominently striped dark blue corollas, and the brilliant scarlet Cardinal Flower (*L. cardinalis*).



LOBELIA PUBERULA

Of the others, one of the loveliest is Downy Lobelia (*L. puberula*), a widespread species characterized by

were common to their lives, but exotic to our continent. An exotic plant can never become indigenous, despite the fact that it may be more common than native plants. When "foreign" plants become so frequent as to appear to be natives, they are called naturalized. Just as humans may become naturalized citizens, these plants may take their places beside our indigenous wildflowers and weeds.

Countless plants were brought as garden vegetables or cooking herbs while others were brought inadvertently (weeds). Both types of plants frequently "escaped" from the gardenplot to find a home in the wild. This most easily occurs in disturbed places which increase in numbers with

Look Again

numerous light blue flowers 1/2" to 3/4" long arranged in a distinctively one-sided (secund) raceme. According to the literature, it typically is invested with minute erect, soft hairs (as the names would indicate), and has a calyx with lanceolate lobes.

Some plants found in our area fail to conform in all respects, but display some of the features that usually are ascribed to *L. amoena*. In this the stem is more likely to be glabrous, and the sepals are narrower—even linear—and sometimes bear callous-tipped teeth. In addition, plants are often seen with flowers of a deeper shade of blue than that which we customarily associate with *L. puberula*.

Since *L. amoena* has a much more restricted distribution, it is always gratifying to find a specimen that keys out with relative certainty. Unfortunately, though, the two species tend to intergrade, and then the distinctions between them become less clear. But even when our attempts at positive identification are frustrated, we can take satisfaction from the fact that the exercise itself has added just a little more to our intimate knowledge of the wildflowers around us.

—Dick Smith

human settlement. It is difficult to know exactly what grew here before the European settlers. There are no exhaustive plant species lists made by Native Americans for modern scientists to use. Native peoples carried seeds and plants from one region to another. The strawberry and the sunflower are both plants from farther west, brought to the Carolinas, we think in pre-Columbian times. Are these plants to be considered indigenous because native peoples transported them? Even Native Americans are not truly native, they came here from Asia before the last ice age, bringing no doubt exotic plants.

It is eye-opening to consider that all contemporary garden plants originated

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BOTANICAL EXCURSIONS

By George Ellison

Boneset Tea, The Milksick Plant and Mr. Pye

Late summer and fall is one of my favorite times to get out and botanize. It's the time for gentians, asters, goldenrods and many other showy and distinctive plant groups that spring-oriented wildflower enthusiasts miss out on. The *Eupatorium* genus in the sunflower family (Asteraceae), contains several of the more interesting plants that appear this time of year: Joe-pye weed, boneset, and white snakeroot.

The genus tag comes from the name of an ancient king, Eupator, who supposedly used them medicinally. Worldwide there are about 700 species, with seventeen or so of these appearing in the mountains of western North Carolina, where I do most of my botanizing.

One grouping within the genus is commonly called boneset or thoroughwort. These are erect plants (usually about 3-feet tall) of fields and meadows with opposite leaves that branch at the top of the stem, forming flowering clusters that are often flat. The prototype species within the boneset group is *Eupatorium perfoliatum*. When your grandmother broke out the dreaded "boneset tea" to cure a cold you'd come down with, this was the plant she'd collected the dried leaves from.

Unlike all the other bonesets, it has opposite leaves completely joined so that the stem clearly pierces them. The name thoroughwort is probably derived from the same source. They are common in moist, low places, and are easy to locate once you learn to spot the perfoliated leaves.

The name "boneset" derives not from the fact that the plant was used for broken bones but due to its application to a disease that swept the South during the 19th century known

as "bone-break fever." Bunches of the dried herb were kept hanging in attics from which a dark brew aptly described as "nauseous" was concocted. For children unable to keep the medicine down, a boneset taffy was prepared. Despite being characterized as an "outdated, bad-tasting, worthless fraud" in some quarters, it is possible that the plant "possesses



Eupatorium fistulosum Barratt (Joe-pye weed) from p. 921 Strausbaugh and Core, 1977, *Flora of West Virginia*. Seneca Books, Inc., Grantsville, WV.

immunostimulant activities due to polysaccharides" which make it worthy of further scientific investigation (Crellin and Philpott, vol. 2, p. 106).

A second group in the "*Eupatorium*" complex is composed of plants typified by white snakeroot (*E. rugosum*). This species has long-pointed, egg-shaped, toothed leaves that are stalked. The slightly-rounded flowering heads are bright white. It thrives in rich habitats, especially in the middle-to-upper elevations of the

southern mountains. In the fall of the year, a hike from Silers Bald to High Rocks along Welch Ridge in the Great Smoky Mountains National Park consists of wading through mile after mile of waist-high white snakeroot.

The common name indicates that it was widely used as a snakebite remedy, but mountaineer cattle drovers came to know the plant best for the "trembles" that struck their stock after eating it and for the often fatal "milk sickness" transmitted to humans who drank unpasteurized milk from these cows. It was said to have been the cause of the death of Abraham Lincoln's mother. Quacks styling themselves as "milksick doctors" administered doses of honey laced with whiskey or brandy that didn't cure the disease but, no doubt, provided temporary relief (Arthur, p. 525).

At first it was thought the sickness resulted from a fungus growth or some sort of mineral poisoning, but in time it was traced to this particular member of the *Eupatorium* genus, which contains a highly complex alcohol, tremetol, in combination with a resin acid and several glycosides (Turner and Szczawinski, p. 138). Faced with dire consequences, the cattlemen quickly learned to recognize white snakeroot and kept their stock away from areas "infested" by this pretty cousin of Joe-pye weed and boneset.

Joe-pye weed is the common name for a third group of well-known plants in this genus that stand from three to ten feet high and exhibit whorled leaves. From August into October their large clusters of purple to pink flowers are one of the outstanding features along roadsides. In

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Excursions cont.

the Southern Blue Ridge Province, five species have been reported: spotted Joe-pye weed (*E. maculatum*); eastern Joe-pye weed (*E. dubium*); hollow Joe-pye weed (*E. fistulosum*); sweet-scented Joe-pye weed (*E. purpureum*); and Appalachian Joe-pye weed (*E. steelei*).

Eupatorium fistulosum, the hollow-stemmed species sometimes called trumpetweed was utilized by Indians as a blowgun. Short segments were used to secure water from springs during periods of drought or to administer powdered medicinals orally. It may also be true—as is sometimes reported—that the hollow stems enabled fleeing Indians to breathe while hiding underwater from enemies.

Who was Joe Pye? Numerous sources state that an Indian medicine man, Jopi, prepared a treatment for typhus from the plant during the Colonial period in New England. I had repeated that version of the name's origin countless times for participants in wildflower identification workshops before happening upon the Joe-pye weed entry in A Field Guide to Medicinal Plants, where I read: "Name derived from 'Joe Pye,' a 19th-century Caucasian 'Indian theme promoter' who used the root to induce sweating in typhus fever" (Foster and Duke, p. 164).

A Caucasian Indian theme promoter! So much for romantic notions regarding ancient Indian practices and plant lore. Was Mr. Pye in reality what the Cherokees call a "wannabe" —just another white guy who wanted to be an Indian? Joe, say it ain't so!

LITERATURE CITED:

- Arthur, John Preston. A History of Western North Carolina. Raleigh, N.C.: Edwards & Broughton, 1914.
- Crellin, John K., and Jane Philpott. Herbal Medicine Past and Present. 2 vols. Durham, N.C.: Duke University Press, 1989 and 1990. (This study incorporates the folk uses of over 700 medicinal plants obtained from A.L. "Tommie"

Bass, an Appalachian herb doctor, in addition to notes on the potential use of each plant based on current scientific studies.)

Foster, Steven and James A. Duke. A Field Guide to Medicinal Plants: Eastern and Central North America. Boston: Houghton Mifflin Co., 1990.

Turner, Nancy J., and Adam F. Szczawinski. Common Poisonous Plants and Mushrooms of North America. Portland, Oregon: Timber Press, 1991.

One Liners

"...I ventured to cross over [the Little Tennessee River near the Georgia and North Carolina border]; however I was obliged to swim two or three yards at the deepest channel of it, and landed safely on the banks of a fine meadow, spread abroad on the turf my linen, books, and specimens of plants, &c. to dry, turned out my steed to graze, and then advanced into the strawberry plains to regale on the fragrant, delicious fruit..."

—William Bartram,
1775, in Van Doren, ed., Travels of William Bartram, 1928, p. 282.

"The weed is the real thing. Cultivated vegetables are imitations. Every vegetable from asparagus to zucchini is the descendent of a wild ancestor."

—Ronald Rood in Mellinger,
Roadside Rambles.

"Unlike the geese and the carp, the terrestrial birds and mammals accept high water with philosophical detachment."

—Aldo Leopold,
Sand County Almanac, 1949, p. 24.

"It is a river who wields the brush, and it is the same river who, before I can bring my friends to view his work, erases it forever from human view....Like other artists, my river is temperamental; there is no predicting when the mood to paint will come upon him, or how long it will last."

—Aldo Leopold,
Sand County Almanac, 1949, p. 51

Exotic Cont.

as wild or native somewhere in the world. A wildflower from Japan is a wild species, but not a native when growing here. Where a plant is now *does* require us to use differing terminology. "Native" can be a relative term. For example, the white pine grown here in the Piedmont is really from the mountains, as is the hemlock. When one asks "is it native?", the answer depends upon what you define as boundaries. Do you mean that the plant in question is a wild species, unaltered by breeding and hybridizing, no matter where in the world it originated, or that it is of truly local origin, the more correct use of the word "native"? Many commonly referred to as "wild" plants (whether in a garden or on a roadside) originated in other countries and should be called naturalized exotics here in America.

An *Exotic* (plant) simply is foreign, not strange or unusual as often implied. Many attractive and popular ornamental plants are exotics, such as Japanese maples, forsythia, quince, and the Bradford pear. Because we have no truly winter-flowering species among our native flora, we include exotic plants for winter blooms. Is there any reason to exclude non-natives from our landscaping? Naturalized in unwanted settings, such exotics as Japanese Honeysuckle and Kudzu have reeked havoc with the native flora of the South. North America has exported ragweed and poison ivy. Are we even?

Modern gardens are typically a blend of wild species, exotics, and "new varieties of popular garden plants." These new varieties can originate accidentally, as mutations or hybrids of wild species in cultivated situations, or more frequently, are produced by humans through many generations of hybridizing and selecting in an attempt to create a desirable new plant. It is important that we recognize that wild areas here and around the world should be protected for many reasons, including as sources for future garden subjects. By protecting and preserving extensive natural areas, all gardeners may one day benefit.

Southern Appalachian Botanical Organization Spotlight

Editor's Note: In the upcoming issues we hope to feature various botanical groups within the region. Please send a brief summary of your organization to appear in this column over the next several issues.

Virginia Native Plant Society

The Virginia Native Plant Society was founded in 1982 and now has 1400 members in nine regional chapters. The Society works actively to foster awareness of Virginia's botanical heritage and to promote conservation of wild plants. The state organization provides programs and presents goals to the chapters which, in turn, relay needs and ideas to the state organization. Chapters produce their own publications and provide educational programs throughout the state.

Among the several activities of the Society is the publication of *The Bulletin*, a quarterly publication that keeps members abreast of current events and issues of the Society as well

as articles on the biology, conservation, and identification of wild plants. An annual brochure features one of the native plants of Virginia.

The Society plays a role in public and commercial conservation in at least two ways. It maintains a voluntary registry with landowners where significant native plants or plant communities are found, providing the landowner with information and assisting in the protection of the registered sites. The Society also works with the public to discourage the use of exotics in landscaping and works with nurseries to set standards for labeling native material and discourages digging of wild plants for

sale.

Education is also a primary function of the Society. Field experiences are emphasized at the Shenandoah National Park Wildflower Weekend and the Wintergreen Spring Wildflower Symposium. During the winter the Society offers the Winter Workshop. Chapters frequently present programs such as woodland gardening and butterfly gardens.

For more information, write the Virginia Native Plant Society, P. O. Box 844, Annandale, VA 22003 or call the President at 703/368-9803.

--written from information provided by Mark Gatewood, Publications/Publicity Chair

SOUTHERN APPALACHIAN BOTANICAL SOCIETY Application for Membership

Name: _____ Date: _____
(name and address should be four lines as given)

Address: _____

City: _____ State _____ Zip: _____
(9 digit if avail.)

AFFILIATION (Check one): College or university _____ Other educational or research institution _____ Non-institutional _____

PRIMARY AREA OF INTEREST: _____ Floristics and distribution _____ Vascular plant systematic _____ Community ecology
_____ Non-vascular plant systematics _____ Physiological ecology _____ Other (specify) _____

MEMBERSHIP CATEGORY:

Regular membership	()\$20.00	Sustaining membership	()\$50.00
Family membership	()\$30.00	Emeritus	()\$15.00
Student	()\$10.00	Life membership	()\$400.00

Indicate when membership, Journal, and Newsletter subscriptions are to start: Jan. ___1994 ___1995

Send To: Charles N. Horn, Secretary-Treasurer

Newberry College
2100 College Street
Newberry, SC 29108

Calendar of Events

Virginia Natural History
Wintergreen, VA
Sep 17-18
800-325-2200 ext 992

TN Native Plant Society annual meeting
Arnold Center, Manchester, TN
Sep 23-25 615-285-2777 (evening)

OK Native Plant Society annual meeting
Durant, OK (Deer Run Lodge)
Oct 7-9 405-924-5163

50th Anniversary of Penn's Woods
Washington Crossing, PA
Oct 8
215-862-2924

Fall Hike Week
Fontana Village, NC
Oct 16-21
800-849-2258

Midsouth Native Plant Conference
Memphis, TN
Oct 21-23
901-680-9756 (Larry Wilson)

Rare Plant Conference
Central Oregon Community College
Bend, OR
Nov 4-5
503-389-6981

Annual SABS and Assoc. of
Southeastern Biologist Meeting
The University of Tennessee at Knoxville
Knoxville, TN
Apr 19-21
410-830-4117

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