Chinquapin

The Newsletter of the Southern Appalachian Botanical Society

Vol. 3, No. 3

Fall 1995

From The Editor's Desk.....

Summer has come and gone with many of the common vagaries in the weather - too hot, too dry, too wet - depending on place of your residence. Here in the heart of the Southern Appalachians, it seems a fairly normal year with respect to the weather. There are dry spots (Panthertown valley on the head of the Tuckasegee River near Sapphire, NC had some dried out sphagnum in the seepages of the rock outcrops) and wet spots (Sapphire itself had a flood with as much as six inches of rain reported at the Highlands Biological Station), depending on the spotty nature of summer rains. Based on the weather reports, I suppose this is general for the Appalachians and most of the eastern seaboard as a whole.

In July I participated in one of the more delightful, albeit demanding, activities that has been taking place in North Carolina for the past eight years. The North Carolina Vegetation Survey reminds me of a similar activity taking place nearly four decades ago with the Carolina Flora Project which resulted in the Vascular Flora of the Carolinas. The goals of the survey are to have a better grasp of the types of vegetation distribution of North Carolina, including data on the topography, aspect, soils, and vegetational attributes of presence, coverage, stratification, etc., and to permanently mark the plots for future reference. The project of a "gang of seven" plant ecologists started with the intent of taking time away from the usual professional activities of interested botanists for the purpose stated and to be able to interact in a learning environment. Participants give their time freely and support themselves personally for the most part. See the report below.

Of concern to many of us is the attitude of Congressmen toward the Endangered Species Act and its interpretation and execution by the U. S. Fish and Wildlife Service. Many feel the species is of primary concern in this matter while others suggest that if the habitats are properly managed, we should be not so concerned about the individual species. After all, species have come and gone over the history of the earth and will continue to do so unless we intervene in some cases to maintain the gene pools. While I can agree with those who wish to maintain gene banks, sometimes at high costs, I tend to side with those concerned about habitats. The irony, of course, is the fact that both the species and habitats are under pressure by various human activities. The Southern Appalachians, old and stable as they have been for millennia, none-the-less continue to be altered by events of geomorphic proportions: hillsides are blasted for roads, buildings are built, new residences and various developments have resulted in increased quantities of chemicals added to soil systems intentionally (pesticides and fertilizers) or unintentionally (oil spills, air pollutants, etc.). We are unsure how all this human activity is

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Endowment Challenge Update

Announcements of the challenge have now been sent to all non-student members of SABS. Some responses have been coming in. At the higher donor levels, we are doing quite well. We still have a need for about 18 NEW donors to come forward who will give $100 to $499. Without these donors, we cannot meet the challenge and we will forfeit Don Windler's $1,200. Please help us with the challenge.

- SABS Endowment Committee.

Letters to the Editor...

Charles R. Gunn writes concerning his review of Attenborough's book (see Book Corner below): Any reader, as I did, can relish the carefully selected accompanying color photograph(s). But alas there are the bold statements that are supported by clever writing and field examples. The nagging questions: Plants are alive, but do they really follow the author's scenario of "seeing," "searching for water," "counting," and "communicating?" Though some do "strike" and "capture." There are so many plants that perhaps there is room for anthropomorpathy. With this book I can put these dark thoughts aside and immerse myself in its textual and pictorial beauty. Please read and see the three-picture series of the titan arum or read and look at the Maltese "fungus" or the bladderwort. And for animals, please turn to the photographs and text of the male proboscis monkey, the hawkmoth, and the roller beetle.....

[Ed. note: Indeed, the British Broadcasting Company, Attenborough, and Princeton Press have teamed up to do some quality work. I concur with your teleological questions and allow the poetic license in front of the camera, though this does not help the public's real understanding of natural processes. I hope Attenborough takes this into consideration and eases up on his dramatic misnomers.]

Don Farrar wrote commenting on the "Wild Ideas" of the last issue and says he has a large manuscript in process. He presents some interesting additional challenges (see below) and we will anxiously await his mauscript.

- Ed.

Shirts, Mugs and Totes

To order T-Shirts, Mugs and Tote Bags, please contact The Complete Naturalist, 2 Biltmore Plaza, Asheville, NC 28803. phone (704) 274-5430, FAX (704) 274-5408. The owners of this store, Laura and Hal Mahan, have agreed to receive orders and money, ship the shirts at cost, and give SABS 100% of the receipts as a service to the Society. We are very pleased to accept their offer, as it will make shipping easer (they do it every day). Both Laura and Hal are active in teaching natural history and conservation. Be sure to note T-shirt size (M, L, XL) and whether you want it in white or natural (beige). T-shirts are $10 each, Totes are $8, and mugs are $5. Please include $3 for first item, and $1 for each additional item for shipping.

Castanea Back Issues

The special issue of the Barrens Symposium is available for $10.00 and regular back issues will be $6.00 starting in 1995. This price reflects the current production, handling, and shipping cost. Contact Secretary-Treasurer, Charlie Horn.

West Virginia University is disposing of all back issues in existence by August 31. WOULD YOU PLEASE CHECK WITH YOUR LIBRARY AND SEE IF ANY BACK ISSUES ARE MISSING AND CONTACT LARRY MELLICHAMP (ADDRESS ON FRONT). Members can still get back issues before 1990 for a bargain $1 per volume (especially if picked up at the annual meeting with the Association of Southeastern Biologists or directly at the University of NC at Charlotte). This bargain price applies to availability (there are some missing numbers in many volumes).

Research Underway

[In this column we wish to list research or studies in the botanical field taking place in our eastern region. Perhaps in this way information might be exchanged, some student might not be duplicating another's research area that could prevent awarding a degree, or our lay botanists will know that the world of botany continues its expansion into the unknown. Please send your project topics, especially those of students, to the Chinquapin newsletter editor for inclusion in future issues on a regular basis.]

Newberry Coll., Charles Horn/ Andie Ward: Population status and ecological preferences of *Dirca palustris* in South Carolina; Charles Horn: Aquatic survey of Guyana, South America.

Univ. of Georgia, Susan Bratton and Albert Meier: Natural disturbance history of the Chattooga watershed.

College of William & Mary, Martha Case/Lisa Wallace: Isozyme and morphological analyses of the southern vs. northern Yellow Lady's Slippers (*Cypripedium parviflorum* vars. *parviflorum, pubescens,* and *makasin*); Henry Mlodozeniec: Taxonomic and population genetic relationships within and among populations of *C. parviflorum* and *C. kentuckiense* using isozyme electrophoresis.

Editor's Desk cont.

affecting the habitats or rare species contained therein, but let us all be concerned that the magnitude of this is not undoing the natural process and our future existence as well. In our quest to understand DNA, let us not leave out the outside world where most of it resides and continues to adapt to the natural changes which will continue to take place in the future.

Several people have verbally responded positively, at least tongue in cheek, to the columns on "Wild Ideas" and "Research Underway." I would like to see more substantial responses in the form of written items and the door is open in two major ways, the old standby correspondence mail and the new electronic mail, both fax and e-mail. I would like for anyone who reads this and has a thought or input to at least phone me and maybe I can get the message down in a written form that will be acceptable. Editors generally do not wish to "beat the bushes" for their "fruits" and as a Southern Appalachian, I am unaccustomed to gathering blueberries, blackberries, apples, etc., by beating the bushes.

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 for publicationto the editor.

Oklahoma Native Plant Society

The Oklahoma Native Plant Society was initiated in 1986 through efforts of the Wildflower Committee of the Tulsa Garden Clubs. The 350 members are scattered throughout the state but most belong to the two chapters, the Northeastern Chapter in Tulsa and the Central Chapter in Oklahoma City.

The stated purpose of the society is "to encourage the study, protection, propagation, appreciation and use of Oklahoma plants." They produce a quality newsletter, Gaillardia, named for the official state wildflower, *Gaillardia pulchella*, Indian Blanket. Annual activities include a February "Indoor Outing," in which slide lectures and demonstrations are the feature, a fall meeting with field trips the main activity, and the co-sponsoring of the annual Wildflower Workshop. Other field trips in early spring, midsummer, and fall are sponsored by the state ONPS, giving the membership and guests an opportunity to view first-hand the diversity of the state. A wildflower photo contest is sponsored each year by the state ONPS. Local chapters have meetings and local field trips of their own.

A complimentary copy of Gaillardia may be obtained by writing OPNS, c/o Tulsa Garden Center, 2435 S. Peoria, Tulsa, OK 74413.

Vegetational Survey Underway

During the past July the North Carolina Vegetation Survey (NCVS) held its eighth annual "pulse," this time in the Grandfather and Roan Mountain areas. Approximately 50 botanists from throughout North Carolina and adjacent states gave from one to eight days of their time to the effort, which was the first official foray of NCVS into the Southern Appalachians. Participants included faculty, graduate students and undergraduates from several universities, botanists from state and federal agencies, and many unaffiliated but dedicated amateurs.* The pulse was a valuable learning experience for new recruits and quite a challenge for some experienced participants more accustomed to the coastal plain flatlands. The work was well worth the effort!

The North Carolina Vegetation Survey was established in 1988 for the purpose of obtaining high quality quantitative data on the natural vegetation of the state. Of the group that originally conceived the idea (the "Gang of Seven"), Robert Peet and Thomas Wentworth of UNC-Chapel Hill and NC State University, Mike Schafale of the NC Natural Heritage Program, and Alan Weakley of the Southeast Regional Office of the Nature Conservancy remain active and are the primary coordinators. Cecil Frost of the NC Plant Protection Program and Dan Pittillo of Western Carolina University also play regular active roles. However, much of the strength of the program derives from the dozens of volunteer botanists who each year join the coordinators to sample the vegetation of some region of the state.

The annual sampling pulse provides an opportunity for participants to get together in the field with many of the most active botanists in the state. Moreover, they get to visit many of the best botanical localities in the focal region, a significant proportion of which are either little known or in private ownership and not routinely available.

The scientific objective of a particular pulse is to collect data on composition and environment of the best remaining examples of natural vegetation of the focal region. The larger objective of the project is to document and describe the vegetation of the state, both for conservation and academic purposes. All sample plots are permanently marked to facilitate future research on vegetation dynamics, as well as for conservation monitoring. The goal of the project is to ultimately include all the major vegetation types of the state in a single database which will be used for conservation purposes, for planning future research and as the basis for a synthetic treatment of the vegetation of North Carolina. In addition, an effort is being made to include within the vegetation samples as many of the species known from North Carolina as possible, so as to better characterize the habitats they occupy.

At the onset of the program, a sampling protocol was developed that could provide consistent data from the broad array of vegetation types found in the Southeast and which would facilitate incorporation of data collected for other projects. The basic sampling unit is a 10x10 m module in which all woody stems are measured, cover of each vascular plant species is recorded, and soil and other site variables are quantified. Multiple modules are usually collected, with a 20 x 50 m (1000 m^2, 0.25 acres) plot being the most common sample configuration. One unusual feature of the protocol is that species composition and richness are assessed over a range of spatial scales, and another is that the method has sufficient flexibility built in to accommodate the challenges presented by most types of vegetation.

The first annual pulse occurred in 1988 when the coastal island maritime forests were sampled. This was followed by a series of two pulses in the sandhills region and three in the longleaf pine forests of the outer coastal plain. In 1994 the pulse was held for the first time on the piedmont and focused on vegetation response to the geologic diversity in the Uwharrie Mountains. While 1995 is the first year a pulse has been held in the moun-

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Survey cont.

tains, the NCVS sampling protocol has been used in a series of recent studies in the Appalachians including the Joyce Kilmer, Shining Rock, Linville Gorge and Ellicott Rock Wilderness areas. Based on the rate at which the state is being covered during the week-long pulses, the group estimates that another 20 years may be necessary to provide reasonable coverage of the range of vegetation within North Carolina, though supplementary projects employing the stand protocol may hasten completion.

Given the amount and quality of the data generated, the quality of the participants' experiences, and the overall camaraderie, this is an activity that would be appreciated by most any plant ecologist or floristic botanist. Botanists of all levels of experience value their participation with the pulse as an important learning experience. Even inexperienced botanists who do not yet know or remember much about the identification of vegetative stages of plants can get a refresher course while still providing helpful assistance as a recorder. Contact Tom Wentworth about the 1996 pulse if you are looking for increased field experience or even a good alternate vacation activity next year (Dr. Thomas Wentworth, Department of Botany, Box 7612, North Carolina State University, Raleigh, NC 27695-7612; phone 919-515-2727, fax 919-515-3436 or e-mail at tom_wentworth@ncsu.edu).

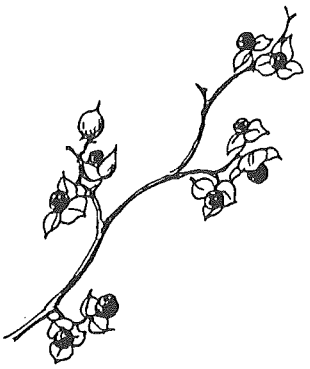
footnote: Tom Wentworth supplied the following note on the 1995 pulse: For those of you interested in statistics, we installed 74 plots in the Grandfather Ranger District or on the Roan massif; 57 of these plots were full tenth-hectares. This represented a better-than-average performance; average numbers of plots and tenth hectares installed in our first seven PULSE events (including minipulses) are 65.6 and 48.7, respectively. Across the 74 plots, we installed 283 intensive modules, again considerably more than our long-term average of 228. The range of communities and environments covered was quite remarkable. Elevations ranged below 2000' to well over 6000', moisture conditions from seepy to xeric. A wide variety of bedrock and soil types were represented as well. Communities ranged from low-elevation riparian and cove forests, through many variants of oak-dominated, pine-oak, and northern hardwoods forests, to spruce-fir forests and balds. The majority of our plots (44) were on US Forest Service lands.

The "people" statistics are also quite interesting. There were 50 participants contributing 139 person-days of effort. There were representatives from at least seven regional colleges and universities and six state, federal or private organizations. A number of our volunteers this year were private individuals not representing any particular organization.

Look Again

(Reprinted from: Shortia, Spring, 1984, Newsletter of the Western Carolina Botanical Club)

A number of years ago the conservation department of an eastern state issued a list of plants which it had decided should be accorded statutory protection. Predictably, it included *Arethusa*, Golden-seal and Green Dragon, but to the surprise of many it also named Celastrus orbiculatus, or Bittersweet. The intent, as they were quick to explain, was to list *Celastrus scandens*, which is the native vine known as Climbing or



C. orbiculatus

American Bittersweet, or Wax wort. Instead, they had inadvertently placed under the protection of law a rampant, destructive escape called Oriential Bittersweet by those anxious to avoid such confusion. To be fair, though, the error is one that is frequently made, and examples are easy to find in the literature.

C. orbiculatus was imported in comparatively recent times and culti vated for its colorful fruits, which persist into the winter and are eminent ly useful in decorative floral arrange ments. (Exploitation of the less resil ient *C. scandens* for this purpose was responsible for its disappearance from many localities. In both species the smooth, yellow, globular capsules de velop in early fall from the pistillate flowers, which are greenish and quite inconspicuous. When they mature—and you can induce this by bringing them into a warm house—they split open along three sutures and the segments become reflexed, reveal ing a shiny, brilliant red aril.

The arrangement of these fruits is diagnostic: In *C. orbiculatus* they occur in axillary cymes of no more than three, whereas in *C. scandens* they form a terminal panicle containing many more~ Also, the leaves of the introduced species are relatively broader, becoming nearly round (hence the specific name).

Bittersweet vines climb by twining around small trees and holding on in a relentless death-grip. Many a hiker's walking stick is marked by deep spiralling grooves that attest to the struggle between a sapling and a Bittersweet.

-Dick Smith

BOTANICAL EXCURSIONS

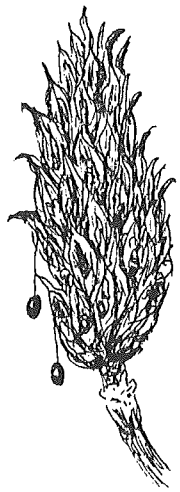
By George Ellison

"FUNICULAR STRANDS & MAGNOLIA SEED DISTRIBUTION"

The fall color season is justly celebrated, but the fall fruiting season is all too often ignored. Not taking an interest in this final growth phase would be like watching three-quarters of a good movie or football game and heading for the exit. Fruiting and seed dispersal is the grand finale in a plant's life, and it's often conducted in a manner every bit as colorful and dramatic as anything that occurs during the flowering period. Strawberry bush (hearts-a-bustin'), mountain ash, ginseng, staghorn sumac, wild yam, pawpaw, blue cohosh, pokeberry, sassafras, jimson weed, doll's eyes, virgin's bower, speckled wood lily, and many other plants are at their most distinctive stage during the late season fruiting phase.

Fleshy fruits (blueberries, etc.) are designed to induce a variety of birds and mammals to devour them and thereby scatter their seed to likely habitats. Other non-fleshy fruits are constructed so as to utilize wind (dandelions, etc.), water (shrub yellowroot, etc.), and animal hair or human clothing (beggar-ticks, etc.) for dispersal. And still others like witchhazel and touch-me-not have evolved explosive seed dispersal mechanisms that literally "shoot" seeds some distance from the parent plant.

Magnolias are most noticeable in spring or early summer when they produce the showy flowers that have made them famous, but they lend a graceful touch to our landscape year-round. Indeed, the fall season, when they produce their red seeds dangling on curious threadlike filaments from conelike structures, is perhaps the most interesting time to find a magnolia and take a closer look. In doing so, you'll observe yet another of the canny, seed-dispersal strategies plants haveevolved to insure their viability as a species.



Rather than falling to the ground, magnolia fruits are suspended on hair-like threads that make them readily available to birds, which are the plant's primary seed distributors.
–Drawing by Elizabeth Ellison

Magnolia cones are attractive scarlet to rust-brown fruiting structures composed of numerous pocketlike follicles, each containing one or two crimson seeds the color of nail polish. It's when the cones reach the stage whereby seeds fall from the fruit pockets that a curious senario ensues. Instead of falling immediately to the ground, these seeds remain suspended in the air attached to slender, almost invisible threads.

These threads are called "funicular outgrowths" in botanical manuals (cf.. Manual of the Vascular Flora of the Carolinas, p. 437). In general, "funicular" means anything operated with strands. In botanical terms, it refers to the "funiculus," which is the stalk that attaches an ovule to the inner portion of the ovary.

Examine these strands and you'll find they are rubbery in consistency and vary in length. As the seeds come out of the follicles, they do so in spiderman-like fashion, with the strands elongating according to the weight of each seed. (If you collect a cone that is just beginning to exude seeds and place it upright on a sunny windowsill, this process can be speeded up and readily observed.) They remain suspended for many days on strands up to nearly three inches in length before falling to the forest floor.

Why? The most obvious explanation would seem to be that magnolia trees have adapted so as to cater to animals that can distribute their seeds at a considerable distance. Seeds that fall to the ground can't flourish in their parent's shadow. They would be dependent upon small woodland animals that might find and transport them to a likely spot. Birds are the obvious distributor-of-choice. And they can best locate the bright red seeds when they are dangling in the air on funicular strands rather than down on the ground in the leaf litter.

In order to make their product all the more appetizing to birds, the seeds are enveloped in a coating that's unsavory to mammals. Try some and see how soon you commence spitting. They're chock-full of alkaloids. You won't try a second helping. It is, however, just the sort of pungent flavor birds delight in, and magnolia pulp contains a lipid fat content of up to 62% fat that ranks among the highest of any fruiting plant. Birds eating these fruits - especially neotropical migrants returning to their

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Wild Ideas

Ideas are born by inquisitive minds. Perhaps some of us have had some speculative thoughts that have turned out to be basically correct when the facts were properly evaluated. Researchers often are driven by hunches and due to discipline must work for years to come to publishable conclusions (recall the effort in establishing the DNA model). Sometimes these ideas, rather well supported, are too advanced for the collective scientific community to accept and await the testing by many others (recall the continental drift model that was eventually accepted as plate tectonics). Sometimes we have these "wild ideas" in disciplines other than our own and in this way help the researcher take a different tact or renew the energy to probe deeper into a problem. Many of us do not feel that these wild ideas should be left unexplored but will not have an opportunity to probe them further. This notion is the basis of this column. The wild idea needs to have some factual basis, though it does not necessarily need to be fully supported as in a reviewed publication. Are there any readers who have a different view of these wild ideas?

TROPICAL ORIGINS OF FERN GAMETOPHYTES

I think your hypothesis regarding the origin of *Vittaria appalachiana* is basically sound, (*Chinquapin* 3:2) except that you don't have to go as far back as Pangaea to find a subtropical climate over the current range of *V. appalachiana*, but rather to the Tertiary, perhaps only 50 million years ago. This is likely the time of origin of *Hymenophyllum tayloriae* and a large number of southern Appalachian endemic and tropical bryophytes as well. All these continue to exist in the eastern United states because the microclimate within their "rockhouse" habitat is still subtropical!

The origin of *Trichomanes intricatum* is probably similar but somewhat more complicated since it is now common in areas of New England which were covered by glaciers in the Pleistocene. Obviously this species has migrated substantial distances since deglaciation, a feat the other independent gametophytes have not accomplished.

What is different about *Trichomanes intricatum*? Did it maintain a sporophyte stage through the Pleistocene and migrate subsequently by spores? If so, why did it then lose the sporophyte generation? Does the endangered *Trichomanes speciosum* in Great Britain represent a parallel situation? Its sporophytes were much more common in recorded history, but now it is represented only by gametophytes throughout most of Great Britian and Europe. I would be interested in any new "wild ideas" by which we could explain the present distribution of *T. intricatum*. - **Don Farrar, Iowa State University**
[Ed. note: What are some bryologist's views along similar lines?]

Welcome To Our New Members:

It is our pleasure to have the following join our organization: Christine Bock, Chattanooga, TN; J. Eric Davis, Jr., Charlotte, NC; Katherine Elliott, Otto, NC; Eric Ewing, Pax, WV; Don Fisher, Lexington, NC; Mark Gatewood, Churchville, VA; Alicia Kesnikowski, Americus, GA; Wilton Lewis, Columbia, SC; Amy Morris, Huntington, WV; Vic Rudis, Starkville, MS; Michael Runyan, Greenwood, SC; Lynna B. Smith, Camden, SC; John Robert Wilker, Pawnee, IL; and Michael Woods, Troy, AL.

Excursions cont.

wintering grounds - can store a lot more fuel with relatively little weight cost than if they were devouring poison ivy berries, winterberry, mountain-ash, chokecherry, and similar fare, which contain less than 10% lipid fat.

Loading fruits with lipid fat is expensive to a plant in that it places a heavy cost on its metabolism. This is why there are fewer high-quality fruit-producing species like magnolia, spicebush, sassafras, Virginia creeper, black gum, flowering dogwood, and southern arrowwood than low-quality fruiting species. But the high-quality species have determined that energy-expenditure costs are more than offset by the gains made in regard to optimal seed placement.

Additional reading:

Kircher, John C. 1988. A Field Gulde to Eastern Forests of North America. Houghton Mifflin Co., 1988. (The first half of this book is devoted to detailed descriptions of forest habitats. The second half is a fascinating account of various plant/animal associations. See "Patterns of Fruiting and Seed Dispersal," pp. 224-231.)

[Ed. note: Writer/naturalist George Ellison leads one of the field trips offered each July in conjunction with the Native Plants Conference held at Western Carolina University. He also conducts six plant identification field trips each year in the Great Smokies region of western North Carolina for Southwestern Community College. To obtain a copy of the brochure describing these outings, write him at PO Box 1262, Bryson City, N.C., 29713, or call (704) 488-8782.]

News:

Butternut (*Juglans cinera*) Nuts Needed

Scott Schlearbaum now has underway a project searching for disease resistance in *Juglans cinera*. If seeds of healthy trees can be shared, these can help with the project if the location, general condition of the tree, and shipment of nuts are made to Dr. Schlearbaum at Department of Forestry and Wildlife, The University of Tennessee, P. O. Box 1071, Knoxville, TN 37901-1071, phone 615-974-7993.

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.]

Now available is Tom S. Cooperrider's The Dicotyledoneae of Ohio: Part 2, Linaceae through Campanulaceae (1994, The Ohio State University Press, and available from Ohio Dept. of Natural Resources, 1889 Fountain Square, Columbus, OH 43224, tel. (614) 265-6457 and fax (614) 267-3096 @$ 68.73 + $3.50 ppd.). This second volume, 656 p. edition of the three part series on Ohio dicots contains discriptions and county distribution maps of more than 700 species of 77 families.—Daniel L. Rice

Available from the author (P. O. Box 1060, Fletcher, NC 28732, $7.00 ppd.), Ron Lance's Woody Plants of the Blue Ridge is a 66 page, indexed, softcover publication of the Blue Ridge physiographic province. His key-system is based on summer leaves only, with line drawings that make excellent comparisons between similar species. The method of keying is rather unique, with illustrations used to separate 7 key groups at the front followed by a series of characteristics of a given key that is read from the left to determine the genus. Brief commentaries and characteristic descriptions of the species provide appropriate attention to significant variants and synonyms.—George Ellison, Charles R. Gunn,David Attenborough, 1995, The Private Life of Plants: A Natural History of Plant Behaviour (Princeton University Press, 41 William St., Princeton, NJ 08540, 330 pp.) is based on the six-part BBC program scheduled to air this fall. I know of few books that one can open at random and be so rewarded— a many facited jewel.

One Liners

"We now entered a very remarkable grove of Dog wood trees (*Cornus florida*), which continued nine or ten miles unalterable, except here and there a towering *Magnolia grandiflora...*" **-Van Doren, ed., 1928, p. 321,** Travels of William Bartram. **[ed. note:** Apparently this is as far south as Conecuh County, Alabama (Bartram Trail Conf., 1979. Bartram Heritage. Bartram Trail Conference, Montgomery, AL. p. 101), but has anyone seen such a "dogwood forest?" In the Southern Appalachians, we sometimes have hillsides of dense dogwoods left from selective overstory tree removal that are very evident when in bloom, but scarcely a quarter mile across. I wonder how Weakley and Schafale might treat this in the vegetational community types.]

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. ___1995 ___1996

Send To: Charles N. Horn, Secretary-Treasurer
Newberry College
2100 College Street
Newberry, SC 29108

Calendar of Events

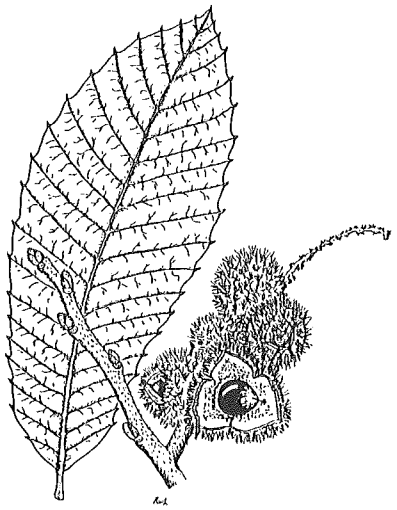
Virginia Natural History
Wintergreen, VA
Sep 15-17
(800) 325-2200

Bartram Trail Conference
Athens, GA
Oct 13-15
Bill Herringdine (706) 542-6150
fax (706) 542-3091

Central South Native
Plant Conference
Birmingham, AL
Oct. 20-21
Mary S. Scanlon (205) 879-1227

Chinquapin

How many members have seen or gathered nuts this year? --Ed



Castanea pumila **(L.) Miller, Ron Lance, October, 1993**

"After vegetation removal in the presence of its deep soils, I never cease to be amazed at the ability of the Southern Appalachians to regreen itself. On the other hand, are we all not amazed that it took nearly a century and ten years of research and vegetation rehabilitation for the Copper Hill basin to revegetate itself after open-air smelting of copper ore in the late 1800's?"**-J. Dan Pittillo.**

Complimentary addressed issues: Please share with your interested friends who might wish to become members of SABS. Thank you--Ed.

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