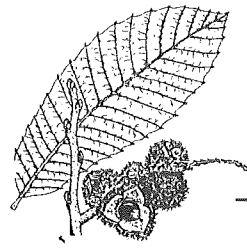


# Chinquapin

The Newsletter of the  
Southern Appalachian Botanical Society



Vol. 6, No. 2

Summer 1998

## From the Editor's Desk:

El Niño has presumably dwindled in its effects on climates and hopefully other world activities. But has the world's climate gone back to normal? Here in the southern Appalachians the weather has proved more normal in the past few months, albeit a bit wetter than the previous several springs. We have more black locust trees blooming around Cullowhee than we have seen in years. It looks as if other trees will be following suit. And I hope you have all realized the lush growth and heavy bloom of our spring flora. Certainly this will be one year most flower-lovers will remember. Will the summer be hot and dry as has been predicted or will we have a normal one? By the time some of you read this, you may have a pretty good idea of what is in store for us.

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## Arkansas Rare Plant Conference

The Arkansas Native Plant Society will host its first Rare Plant Conference on August 11-12, 1998 in Hot Springs (60 miles south of Little Rock). Their goal is to assess the conservation status of 140 species identified as rare by the Arkansas Natural Heritage Database and the National Forests in Arkansas. The conference is for lay-botanists and professionals alike, the results of which are to be used to influence state and federal policy regarding the management of rare plants of Arkansas. Field trips will be guided by local botanists on the 12th. Registration is \$10 in advance, \$15 at the door. Answers to questions and requests for registration forms can be obtained from: Wayne Owen, Plant Ecologist, Ouachita National Forest, P.O. Box 1270, Hot Springs, AR 71913, phone (501)321-5323 or e-mail at <wowen/r8\_ouachita@fs.fed.us>.

## Good Herbarium News at NCU!

It is always good news to hear that progress is being made to take care of the valuable herbaria in the country. With the current issue of the NC Botanical Garden Newsletter it is announced Dr. Ritchie Bell and Anne H. Lindsey of Chapel Hill have donated a rental property valued at about \$100,000 toward the development of the NC Botanical Garden Herbarium project. Secondly, William E. Garwood and his wife, Betty, have donated \$40,000 toward a classroom to honor the late Professor John N. Couch. The proposed building will include a library and classroom and integrate public education with the botanical research. Last year it was announced that Dr. Al Radford and his wife Laurie had given their home within the UNC campus toward this goal. This is significant in that the University Herbarium (NCU) is an outstanding collection of 660,000 specimens documenting over 100 years of botanical exploration and documentation in the Carolinas and Southeast. Let's hope there are others willing to join these excellent examples to protect our valuable herbarium assets throughout the East.

## Photos Wanted!

Have you any good quality (high contrast) photos you would like to share with our readership? Please send to the editor:

J. Dan Pittilo  
Department of Biology  
Western Carolina University  
Cullowhee, NC 28723-4073  
email: pittillo@wpoff.wcu.edu

## Welcome To Our New Members:

Welcome aboard the fastest growing regional organization in botany!

Robert Booth, Statesboro, GA; Dr. J. H. Carter III, Southern Pines, NC; Kevin Dodds, Fayetteville, AR; Chris Doffitt, Columbia, LA; Cheryl Dukas, Cumming, GA; Chris Fleming, Berea, KY; Ron Gilmour, Chapel Hill, NC; Paul Harmon, Elkins, WV; Stephen Heard, Mississippi State, MS; Sandy Hennessy, Asheville, NC; C. S. Major, Franklin, TN; Robin McCall, Ocean Springs, MS; Patrick McMillan, Selma, NC; Randy Mejeur, Athens, GA; Francis Menapace, Florence, AL; Jan A. W. Midgley, Wilsonville, AL; John Orrock, Richmond, VA; William Poly, Carbondale, IL; Alexia Savold, Reisterstown, MD; Holly Selvig, Sumter, SC; Sue Thompson, Pittsburgh, PA.

## Castanea Endowment Drive Report

In 1985, the Society set aside \$5,000 from its treasury to form an investment base for the Endowment. In 1986, the Society set \$200,000 as the amount required to provide the desired level of security. At the end of 1990, after seven years of donations, the Society had only accumulated 8.5% of that \$200,000. Then things began to improve.

Between 1993 and 1997 the Society responded with an average yearly contribution of \$9,126. By the end of 1997 each of the living presidents had contributed \$100 or more. Also, the goal had reached nearly the 50% level with 45.5% contributed and approximately 22% of the membership contributing \$100 or more.

Although no members have come forward to challenge the society in 1998, there are several goals we can set:

cont. on page 11

# Letters To The Editor:

Dan Flisser writes:

I [communicated] recently with botanists at the University of St. Thomas, in St. Paul, Minnesota. The dialogue that's been stimulated is really terrific — seems to have taken on a life of its own!

1. TAXUS ARIL — What are the origins of the red fleshy aril which partially surrounds the seed of *Taxus*? Can we simply say that the aril is an evolutionary fusion/reduction of the bracts and ovuliferous scales of a standard cone?

(*Torreya* produces a seed which is completely surrounded by an aril, resulting in a "drupe-like" reproductive structure). Perhaps there is some extant or extinct individual manifesting intermediate characteristics, from which an explanation can be derived?

2. DECIDUOUS GYMNASPERMS — Do we know if a correlation has been established between the moist (& perhaps nutrient-poor) habitats of *Larix* (cool, acid,

bogs), and *Taxodium* (warm, moist) — and their deciduous vegetative condition? The deciduous gymnosperms occur in 3 families (including Ginkgo): Pinaceae, *Larix*, *Pseudolarix*; Taxaceae, *Taxodium*, *Metasequoia*; Ginkgoaceae, *Ginkgo*. So, is this an environmental response? A natural or artificial Taxonomic feature?

**Ed. Note:** Dan, thank you for starting an interesting dialog. There were two responses to your fleshy aril question that I thought worth sharing with our colleagues and have transcribed them below. Now if anyone else will take up the second question on deciduous gymnosperms and habitats, we can have a second response to share.

John Herr writes:

Speaking of poems, you might like this one that I composed several years ago for one of my classes that had unusual difficulty with simple and compound leaves.

*Trifolium repens* L.

I'm looking over a four-leaflet clover  
Which I overlooked before.  
Now the reason I overlooked it  
Is because, you see, I mistook it  
For a stem axis which atop four leaves bore.

Now my spirit is heightened  
Because I'm now enlightened,  
For I know a Clover leaf is palmately compound.  
And four leaflets or even three  
Will never again confuse me.  
And I tell you this just to inform you,  
Not to astound!

For my students, I was emphasizing that there is no such thing as a four-leaf clover — only a four-leaflet clover. Use the poem in your classes, if it can be of use.

**Ed. Note:** Thanks, John, for this little "student helper." Maybe there will be others who will be willing to share their memory helpers, such as "Sedges have edges, Grasses are round..."

## What is the origin of the Aril in Gymnosperms?

[**Ed. Note:** Dr. Dan Flisser sent the above letter to several botanists posing this question. These responses are being shared with our readers with permission of their respondents.]

Dear Daniel Flisser, You ask hard questions, don't you? Most of us botanists are more interested in angiosperms—and spend little time wondering about gymnosperms. Then, when a simple question is asked, we say: Well, of course, an aril is an outgrowth of the ovule. Which is true with angiosperms. However, Radford, Dickison, Massey & Bell (1974) define the gymnosperm aril as "an outgrowth from the stem forming a fleshy covering of the seed; e.g., *Taxus*, *Torreya*; or only rudimentary at base of fleshy seed, e.g., *Cephalotaxus*." *Cephalotaxus* may be the intermediate you are seeking? Remember the fleshy cone of *Juniperus*. The entire "berry" is covered with a fleshy coat and the "berry" is indehiscent. Many strange features in the gymnosperms. Don't forget *Podocarpus*'s edible aril; and the fleshy coat of the cycad seed seems arillate (but is derived from the integument, and is poisonous) while the fleshy coat over the ginkgo seed is edible. You may wish to pose these questions to Dr. Judy Jernstedt at Univ. California at Davis. She's a great morphologist. Sorry I don't have her email address— but you should be able to get it over the internet. Many years ago (60's, 70's), Dr. Charles James wrote an excellent paper on deciduousness and its adaptiveness. With all best wishes, Nancy C. Coile, PhD Botany

Section, Division of Plant Industry, Florida Dept Agriculture & Consumer Services P.O. Box 147100, Gainesville, FL 32614-7100  
email: coilen@doacs.state.fl.us

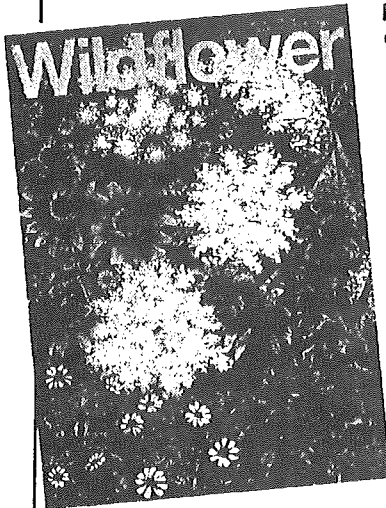
First of all, the term "aril" is tossed around much in the literature. Not all things called arils are arils. The soft tissue of the Juniper "berry" is actually derived through the fusion of ovuliferous scales and their bracts along with the change in tissue type from sclerenchymatous to parenchymatous (ibid. for *Podocarpus*). The fleshy portion of Ginkgo and Cycad ovules is not an outgrowth of the integument, but rather is the outer portion of the single integument. To understand the nature of a true aril requires a critical look at ovule evolution. Ovules evolved in the Late Devonian from a system of fertile and sterile telomes. The major stem truss became the funiculus, and a ring of dichotomously branched telomes surrounding a central one that remained fertile fused to form the integument. That central fertile one became the nucellus. The nucellus thus is not a megasporangium, but rather a stem axis that bears a megasporangium at its apex. Radford, Dickison, Massey & Bell (1974) just about had it right, except I not sure they realized it at the time. The "stem" they speak of is that major

stem truss which became the funiculus. The true aril evolved from a set of telomes below the set which formed the integument. *Torreya*, *Taxus*, and *Cephalotaxus* have such true arils. The aril-funiculus connection can best be

cont. on page 12

### Castanea Back Issues

The special issue of the Barrens (1994) and the Invasive Plants (1996; 6 remaining) symposia are available for \$10.00 each. The last three years' issues are 1996 volume \$25 (individuals @ \$6), 1995 volume \$20 (individuals @ \$6) and 1994 volume \$16 (including the symposium issue; other individuals @ \$2). This price reflects the current production, handling and shipping costs. Prices for 1990-1994 are \$2 per issue and \$6 per volume. Members can still get back issues before 1990 for a bargain \$1 per volume plus shipping and handling. This bargain price is subject to availability (there are some missing numbers in many volumes). Contact Secretary-Treasurer Charlie Horn



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## Please send some... Wild Ideas

*Ideas are spawned by inquisitive minds. Perhaps some of us have had speculative thoughts that 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. Many of us do not feel that these wild ideas should be left unexplored but personally will not have an opportunity to probe them further. This 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.*

Report, continued from page 9

- Increase the percentage of our membership by adding 30 or more new roster donors
- Encourage present roster donors to raise their accumulated donation to higher levels
- Pass the \$100,000 half-way mark by the end of 1998
- Reach the \$200,000 goal by the end of 2005

### SABS Commemorative Collection Displayed

Donna I. Ford-Werntz at West Virginia Herbarium (WVA) reports "the SABS Commemorative Display went up as scheduled on 2 April and it looks very nice [and] all credit goes to the collectors and my volunteer designer." Perhaps you will recall that John Herr conceived the idea that it would be good to have a tree collection from each state provided to WVA to establish a display of collections made by the state representatives from each state. If you can get to Morgantown sometime within the next few years, you might wish to stop and look over the display collection. You might contact Donna before you drop in at 425 Brooks Hall, Box 6057, Morgantown, WV 26506, phone (304)293-5201 X2549, by fax: (304)293-6363, or by email: <diford@wvu.edu>. You may also wish to check out their web site at <http://www.as.wvu.edu/biology/>

### GRADUATE STUDENT AWARDS FOR 1998 ANNOUNCED

At the April 17 business meeting of the SABS five graduate student awards were announced. These awards may be used by students to aid in their botanical graduate research project. This year's winners, their projects and supervising advisors are listed below. Congratulations to these students.

**Jennifer W. Floyd (North Carolina State University)** — "Species relationships in *Gaylussacia* (Ericaceae)"; advisor: Leigh Johnson.

**Anita K. Rose (University of Tennessee)** — "Coarse woody debris and nutrient dynamics in a southern Appalachian spruce-fir forest"; advisor: Niki Nicholas.

**Christopher S. Reid (Northeast Louisiana University)** — "The vascular flora of Wilkinson County, Mississippi"; advisor: Charles Allen.

**Leon Adler (Towson University)** — "Water relations and growth of *Polygonum perfoliatum* L. in varying environments"; advisor: James Hull.

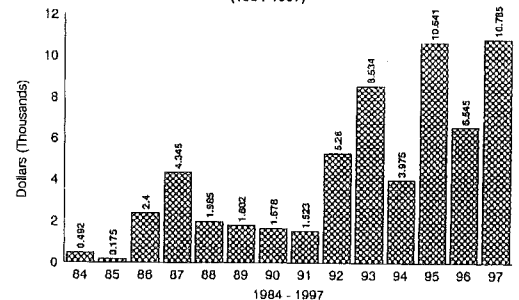
**Howard E. Horne (Florida State University)** — "The genus *Stillingia* in Florida: a taxonomic and natural history study"; advisor: Lorán Anderson.

— Charlie Horn, Newberry College

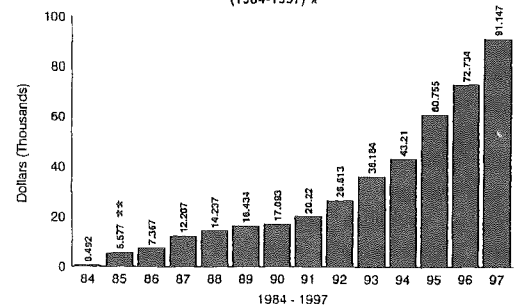
We will need everyone's help to meet these goals

If your name is not on the roster, please donate \$100 or more in 1998

Castanea Endowment Fund Contributions (1984-1997)



Castanea Endowment Fund Holdings by Year - Incl. Earnings (1984-1997) \*



\*12/31 Report of each year 1984 through 1997.  
\*\*Includes \$5,000 from SABS Treasury in 1985.

## THE BARBARA J. HARVILL FUND FOR FLORISTIC RESEARCH IN VIRGINIA

Friends and family of Barbara J. Harvill endowed in her memory a fund to help support floristic/taxonomic work in Virginia. This fund awards small grants to botanists who do not have an institutional base of support for such work. Most awards are for mileage costs for field work (within Virginia) with potential for generating new plant distribution records for the state. Costs for mileage to known plant localities to gather material for taxonomic studies, for visits to herbaria, for lodging, and for some types of field equipment (especially plant presses) also may be wholly or partially covered. These awards are made by the Virginia Flora Atlas committee.

Please send a letter of application describing the planned research and its projected cost to Donna M. E. Ware, Department of Biology, College of William and Mary, Williamsburg, Virginia 23187, e-mail at <dmware@facstaff.wm.edu>. The current award period ends July 31st, 1998.

The following research has been supported by the Barbara J. Harvill Fund during 1996/97 or will be supported in 1998: Floristic and ethnobotanical work on the ancestral lands of the Monacan Tribe, Amherst Co., VA.; DEBORAH JOHNSON, University of South Carolina, Columbia, SC. Taxonomy of *Hexastylis heterophylla*, *H. minor*, and *H. naniflora*; NICHOLAS DROZDA, Western Kentucky University, Bowling Green, KY. Taxonomy of the tetraploid *Isoetes riparia* complex; CYNTHIA A. CAPLIN, Texas Tech University, Lubbock, TX. Paleobotany of the Grafton Ponds, Newport News, VA; TODD BEACH, Northern Arizona University, Flagstaff, AZ. Floristics of the Delmarva Peninsula; WILLIAM A. MCAVOY, Elkton, MD. Searches for *Paxistima canbyi* in mountain counties in Virginia; RUTH DOUGLAS, Piedmont Virginia Community College, Charlottesville, VA. Taxonomic studies of *Paronychia virginica*; WENDY ROHRER, Virginia Tech, Blacksburg, VA. Floristics/taxonomy of *Stachys*, JOHN B. NELSON, University of South Carolina, Columbia, SC. Searches for *Heteranthera parviflora* in the Virginia coastal plain; CHARLES N. HORN, Newberry College, Newberry, SC.

**“Sustainable development is development that meets the needs of present generations without prejudicing the ability of future generations to meet their needs.”**

— JAMES WARD, 1997, NC Bot. Gard. Newsl. 26: 15.

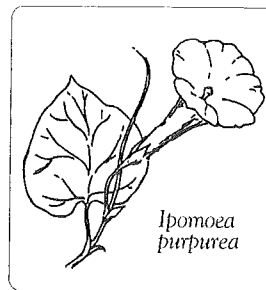
## Look Again

(Reprinted with permission, Shortia, Newsletter of the Western North Carolina Botanical Club.)

by Dick Smith

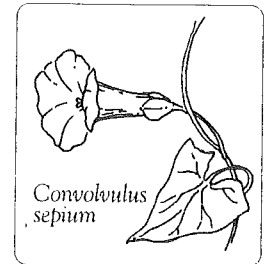
Most of us have had a long acquaintance with morning glories and feel we know them as well as any other flower. It comes as a surprise, then, to learn that we may have been applying the name to some vines to which it does not properly belong.

All of the true morning glories are in the genus *Ipomoea*, and an outstanding representative is the Common Morning Glory (*I. purpurea*). This has heart-shaped leaves and large, handsome funnel-shaped flowers which, despite the specific name, may range from white through many shades of pink and red to blue and purple. Another Morning Glory has even bigger blossoms — white with bright purple rays radiating from the throat. This one is *I. pandurata*, and among its common names are Wild Potato Vine and Man-of-the-Earth, the latter because of its enormous root.



*Ipomoea purpurea*

Plants of the genus *Convolvulus* are known as Bindweeds. Hedge Bindweed (*C. sepium*), which comes in pink or white, bears a striking resemblance to the large morning glories. Differences may be seen in the pair of large outer bracts which cover the calyx (these are absent in *Ipomoea*), the two stigmas (*Ipomoea* has one), and the basal lobes of the leaves, which are pointed rather than rounded.



*Convolvulus sepium*

The other large-flowered species, much less common in our region, are *C. sericatus*, which is downy, and *C. spithameus*, an erect, non-twining plant.

Note: Some authors have placed the Bindweeds (except the small-flowered Field Bindweed, *Convolvulus arvensis*) in the genus *Calystegia*.

### Two SABS Members Receive ASB Awards

Dr. John Herr and Dr. Edward Clebsch received awards at the recent Association of Southeastern Biologists (ASB) meeting in Monroe, LA. The awards were announced as part of the Friday evening banquet. John Herr received the ASB Senior Research Award for his presentation “On the Origin of Leaves: The Telome Theory Revised.” The competition included both a written paper and presentation at the ASB meeting. John is also a past presenting of SABS and ASB. Ed Clebsch received the Meritorious Teaching Award for his many years of mentoring students at the University of Tennessee. At the announcement of the award, portions of several letters of nominations were read, testifying to Ed’s outstanding work over the years.

Congratulations to both of these individuals for their well deserved awards!

— Charles Horn, Newberry College

### Aril, continued from page 10

shown to students with the seeds of *Magnolia grandiflora*. Remove the red fleshy covering from a *Magnolia* seed. Note that fragments of it remain attached to the funiculus. I believe E. J. H. Corner referred to the aril as a “third integument.” That description fits well with my view that the aril was derived from an outer set of telomes. You will see reference to derivation of the aril from the Gymnosperm cupule. That in some cases may be correct. But where did the Late Devonian-Carboniferous cupule come from? From an outer set of telomes! I have just mailed a reprint to you, “The Origin of the Ovule” which will give you the details of integument-nucellus origin and by extension will suggest the origin of the aril as I have explained it. Anatropously\* and Juncusedly\*\*, John Herr, Emeritus, University of South Carolina [\* bent over with work;\*\* rushed]

# BOTANICAL EXCURSIONS

## A CURIOUS RELATIONSHIP: YUCCA & THE MOTHS

By George Ellison

One tends to associate yucca plants with the American southwest or Mexico. Their appearance here in the Southern Appalachians lends an exotic touch to our upland landscape. I used to wonder if yucca had been brought into our area by the early Indians or white settlers since it is such a useful plant as both a fiber and soap-producing agent.

But it appears that the plant arrived here in the mountains utilizing its own curious reproductive methods. It's a story that involves an insect aptly named the yucca moth. The plant can't reproduce without the moth and vice versa. Here's their story.

Most field guides and botanical manuals classify yucca as a member of the lily family, but recent chromosome analysis indicates that it probably belongs in the closely-related agave family. Be that as it may, there's little doubt that the plant first appeared in the arid parts of southwestern North America where nearly 40 species have been designated. A few species spread to the more humid southern United States but retained the leathery leaves and other characters that had evolved under arid conditions.

Here in the Southern Appalachians there is essentially one species: *Yucca filamentosa*. The genus designation "Yucca" (usually

pronounced "yuk-ah" but sometimes "yoo-ka") has a Haitian derivation. The species tag refers to the numerous long curly threads of fiber that appear along the leaf edges.

This feature, combined with the sharp points at the tips of the leaves, accounts for common names like curly-hair, silkgrass, Adam's-needle, and thread-and-needle. It's also called spoonleaf, beargrass, soapweed, and Spanish bayonet.

Yucca is a truly beautiful plant. That's the case at any time of the year due to the sturdy, sharp-pointed evergreen cluster of leathery basal leaves. But it's from late May into early July — when clusters of showy flowers appear on a tall woody stalk — that the plant really comes into its own. Don't fail to stop and take a closer look at these large bell-like flowers the next time you encounter yucca. Note the six white pollen-tipped male stamens surrounding the central female pistil. Pay particular attention to the exposed end of the pistil, where the pollen-receiving stigma flares to make a little cup with a hole at the bottom.

Now we get to the curious part of the yucca story. The plant is entirely dependent

upon a nocturnal moth for pollination. The female yucca moth (pure white with bronze underwing margins) visits a yucca flower (which are both conspicuous and fragrant at night) and gathers grains of pollen from the anthers that she rolls into a small ball using specialized mouth-parts.

The moth then flies with the ball to a flower on a different plant. After depositing eggs with her ovipositor inside the ovary at the base of the flower, she dutifully proceeds to the other end of the pistil and carefully packs the pollen ball into the cup.

The developing moth larvae eat the developing yucca seeds but always leave more than enough to insure an adequate supply for subsequent seed dispersal. The larvae emerge from the seedpod to hibernate in cocoons that are on top of or in the ground near the plant. When the yuccas bloom in late spring or early summer, the adult moths emerge, mate, and the females return to the plants for a renewal of the cycle.

Yuccas cultivated in regions where these specialized moths do not

exist have to be hand-pollinated. It's a thought-provoking example of yet another relationship wherein two seemingly distinct organisms cooperate for mutual benefit. No yucca moths, no wild yucca.



*Yucca filamentosa.*

Illustration by Elizabeth Ellison.

## In the Garden

One of our most common linkages to nature and plant life is with gardens. Originally they may have been places for leisure for the wealthy but as the world human population has increased, poorer communities use them to grow foods while the uptown folks decorate otherwise sterile cityscapes, providing alternate sources of fresh food and places to relax. This truth has recently become manifested in the Southern Appalachian Botanical Society Council's suggesting that we begin a column describing some of our Eastern gardens, perhaps encouraging our members to visit or become informed on one of the many gardens that have recently been developed for visitation. We invite those associated with gardens of various sorts to share a brief history and description of your garden, perhaps a unique feature or purpose, and whether there is an entrance charge.

## Fairchild Tropical Garden

The first time I visited this unique garden was in the mid 1960's while I was on a week-long field trip with my University of North Carolina phycology class. Our stay in the garden was brief, but it left a lasting impression. The stately palms and the placid water reminded me of pictures of the Nile River I had seen in my grade school geography books. Having lived most of my life in Illinois, this was truly an exotic place. I visited the garden again a few weeks ago and I am pleased to report that the garden has weathered the various hurricanes in the last half century and hardly shows any evidence of the destruction. Hurricane Andrew did destroy about 1200 palms and necessitated raising and propping up 326 towering palms. For a while, a small area was retained to show some of the destruction the garden suffered, but even that has now been returned to a display area.



The Fairchild Tropical Garden is situated along the coast south of Miami in what was originally mangrove swamps and adjacent elevated ground. The layout of the 83 acres includes 11 lakes. The park-like area is made very accessible by a well laid out series of paths. The garden design includes large open, grassy areas to provide good views of their prize collection of 3500 palms representing 889 species and 705 cycads representing 150 species (FTG data). The original plan included a number of beautiful scenic vistas that are often photographed and that provide a peaceful place to stop and absorb the moment. For those who may have some difficulty walking around the grounds, there is a well-narrated 40-minute tram tour available that is free with the cost of the \$8.00 admission to the garden.

Even if you are strong enough to walk the paths, you may want to make the tour which takes you past the only members I have seen in the USA of Bixa, Inga, and the Baobab Tree. The Baobab does not compare to photos I have seen from Africa, but it is substantial, having been planted as a 10 inch dbh size at the dedication in 1938. Other special attractions include a 560 foot vine pergola, a sunken garden with a waterfall, a Mayan Fruit Garden, a Fern Glade, a Bamboo Garden and even a small arid rock garden to display some succulents, but obviously this is not their specialty. It may seem that Miami gets adequate rainfall to maintain a Rain Forest, but to maintain proper conditions for their rain forest exhibit, the garden must use aerial irrigation to double the 55 to 56 inches of rain that normally fall. There is also a Rain Forest House, built by four Chachi men from Ecuador in the native manner. In addition to the outdoor displays, there is a conservatory on the grounds to house plants such as orchids and bromeliads that cannot even tolerate Miami's mild climate. The management has given the name Windows to the Tropics to this special collection.

The existence of the Fairchild Tropical Garden is not an accident. Many people in South Florida have contributed through the past, but there were five key players, without whose efforts we would not have this beautiful facility. The major driving force was Colonel Robert H. Montgomery. Col. Montgomery, well known in the world of law and finance, was admitted to the Philadelphia Bar in 1904 and held the office of president of the American Association of Certified Public Accountants in 1912. He had friends in many walks of life, including General and President Dwight D. Eisenhower. The Colonel's interest in plants and gardens had been (initiated) by reading a book called Exploring for Plants by the well-known botanical explorer, David Fairchild. Fairchild was an employee of the USDA. On his retirement from government service in 1935, he moved to a home in Coconut Grove where Montgomery also lived. The two became friends and Fairchild became the tropical horticulture advisor in the development of the garden. In addition to Montgomery's financial investment, organizational skills and enthusiasm, the Colonel and his wife, Nell, also contributed over 600 palm specimens from his own estate to provide an early boost to the garden's living collections.

Once Montgomery decided to develop the garden, he sought the help of Tom Fennell, Associate Director at the Plant Introduction station at Chapman Field. Fennell was familiar with the area and its native plants and later supervised the clearing of the site and early plantings of native species. The Colonel was also aided by another friend from the business world. Charles H. Crandon, who after a successful business career, had entered Dade County (FL) politics. Crandon became chair of the Dade County Commission and was an avid supporter of the development of a county park system. Crandon's political help eased the development of the garden and resulted in the county's becoming responsible for the development and maintenance of 58 acres of the 83 acre garden. Whenever possible, he helped funnel state and federal money into the county's part of the garden.

In the early 30's there was much public support for the development of a garden and in 1936, Montgomery formally expressed his intent to develop the property. In 1938, William Lyman Phillips became affiliated with the effort. Phillips was a well known, Harvard trained landscape architect who had laid out the town sites of Balboa and Pedro Miguel in the Panama Canal Zone and had assisted with the design of American Military cemeteries in France after WWII. He arrived in Florida in 1935 to plan the activities of the CCC in Florida parks. In 1938, while still working for the CCC, he sketched out a plan for the development of the garden. This sketch became the guiding document for the present garden. He saw the gardens as outdoor art galleries with the specimen plants located along the margins or strategically placed within the open spaces. Five years later, Montgomery retained the full-time services of Phillips.

The actual physical work for the garden's development was supervised by Doug Barnes, a Massachusetts Agricultural College graduate, who had worked his way up through the ranks to the position of Director of Dade Co. Parks. During his Directorship all of the Dade County parks were built. Barnes made use of the CCC in this development and thereby interacted with Phillips to further the development of the county part of the gardens. He also served as an ex-officio member of the garden's board of trustees from 1969 to 1981 and an honorary trustee until his death in 1986. When you are in the Miami area, you should leave yourself at least half a day at the garden. There are a cafe-snack area to get you past any hunger pangs and a well-stocked store with an unusual array of botanical/horticultural books, tee shirts, posters and crafts. If you can't visit in person, visit their web site at [www.ftg.org](http://www.ftg.org).

**“We are so accustomed to see another forest spring up immediately, as a matter of course, when one is cut down..., never troubling ourselves about the succession, that we hardly associate seeds with trees....”**

—HENRY D. THOREAU. 1993. Faith in a Seed. p. 23.

**“Except in a few instances of urgent threat to rare plants or animals, we might be better off putting efforts into biocontrol R & D, than lots of small experiments with chemical and mechanical control.”**

—ERIC KIVIAT. 1994. Reed, “Sometimes a Weed.” *Hudsonia* 10 (3): 5.

**Robert B. Platt**

Dr. Robert B. Platt, Professor Emeritus and former Chair of the Biology Department at Emory University, passed away at the age of eighty-five on March 11, 1998. Dr. Platt's illustrious career as a botanist and plant ecologist spanned over five decades, during which he excelled as an educator, research scientist, leader in the ecological community and conservationist.

Bob Platt was born in Knoxville, Tennessee in 1913. He received a bachelor's degree from Emory and Henry College, Master's from Peabody College and a Ph.D. in botany from the University of Pennsylvania. His doctoral work on *Viola* populations occupying shale outcrops received the Ecological Society of America's prestigious George Mercer award in 1950. Bob's research efforts after joining Emory's faculty in 1948 included experimental studies of the physiological adaptations of plants occurring on granite outcrops, several key projects in Georgia and Nevada examining the impact of ionizing radiation on population, community and ecosystem-level processes and studies addressing the role of disturbance in forest systems. A large number of graduate students worked under Bob's

able guidance in pursuing these objectives.

Bob Platt was also quite well known for his pioneering efforts in utilizing ecological concepts for the resolution of conservation issues. His wisdom and strength of conviction proved instrumental during the 1950's and 1960's in establishing the Panola Mountain Conservation Park, Fernbank Forest, The Fernbank Science Center and The Georgia Conservancy and in educating the public about the ecological problems inherent in forest clearcutting. Bob was a true visionary in bringing ecological understanding to the public domain.

Bob Platt received numerous awards for his outstanding efforts as an educator and scientist. Perhaps the finest tributes were his selection to serve as President of the Ecological Society of America in 1973 and in being the 1972 recipient of Emory University's Thomas Jefferson Award, the highest honor accorded a faculty member for distinguished service and leadership. Bob Platt is survived by his wife Deanie, a daughter Rosalind, two grandchildren and a great grandchild. He will be long remembered and sorely missed. — Donald J. Shure, Biology, Emory University

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## Book Corner

In recent years there have been several new publications dealing with aspects of the Mexican Flora that have inspired or at least interested botanical readers in the Southeast, due to the parallels of similarity in habitats and disjunct floras. In timeliness with this growing interest and availability of botanical publications for the Mexican region comes a neatly prepared and complete work on Mexican *Crataegus*. The **Monograph of Northern Mexican *Crataegus* (Rosaceae, subfam. Maloideae)** by J.B. Phipps, 1997 (Botanical Res. Inst. of Texas, Sida Bot. Misc. No. 15) covers the area of Mexico north of the 21st parallel, and all of the Sierra Madre Oriental mountain range. Within this 94-page work are two pages of color plates, numerous tables and figures, a key to taxa, distribution maps, and detailed descriptions and line drawings of all 13 species and 8 subspecies and varieties of *Crataegus* that are known to occur

in this region, all bound in a color cover. The author describes 15 new taxa and 5 new combinations in this revision of a genus last dealt with in detail in Mexico by W.W. Eggleston in 1909. Readers will find the format similar to Dr. Phipps' work on the southeastern mayhaws in **I. Arnold Arboretum** 69:401-431. Additional information on biogeography and ethnobotany of the hawthorns in Mexico makes for interesting reading for those not as inclined to delve deeply in the technical descriptions of these Mexican *Crataegus*. For anyone with an intense interest in this genus and/or in northern Mexico's distribution and taxonomy of this group of plants, this publication will be a definitive resource. Price \$33.00. Bot.Res.Inst.Tex., 509 Pecan St., Fort Worth, TX 76102. — Ron Lance, North Carolina Arboretum

James Duke has done it again! He has

provided the consumer interested in medicinal plants a source that covers some 120 symptoms of the human body, from athlete's foot to yeast infections. Part one is a guide to **The Green Pharmacy** (Rodale Press, \$29.95 hb) and part two covers some of the 120 symptoms of the human body and how and what plants are used to treat them. Throughout the book are boxes that illustrate a particular plant or provide an interesting anecdote about the plant or symptom. The only disappointment is the index, where some entries refer the reader to another entry.

This book provides a wealth of information and is presented with researched data and author's humor. It also provides those not familiar with the importance of plants in medicine an enlightenment to their many uses and some medicinal plant history. — Stephen L. Timme, Pittsburg State Univ., Pittsburg, KS <slt@pittstate.edu>.

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

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