From the President.............................................................................. Bonnie Arbuckle

As we returned from the South Carolina Native Plant Symposium 2001 the car was filled with conversation. Questions were endless. Wasn’t Wilma Dykeman a dynamic speaker? What seminar did you attend? What is a coal ball, and how do you peel it? How did Forty Acre Rock Preserve differ from Peach Tree Rock Preserve? What makes a Carolina Bay? One comment was heard over and over; I learned so much because everyone was so willing and eager to share.

My favorite session was the one on native ferns presented by Tom Goforth. Tom, a teacher, introduced himself and said that since he had become interested in ferns he had decided to learn everything he could about them. He has studied their habitat, classification, structure and methods of propagation. He explained their life cycle and showed the different stages in the propagation process. He sifted spores through a fine mesh screen and gave each participant some to take home. If I am successful in propagating them, it will make a good learn and share program. We examined a fruiting frond under a hand lens and talked of the way to identify different genus and species. Tom also gave each participant a Dryopteris and an Anthyrium plant that he had propagated from spores. He truly shared his knowledge and encouraged us to be aware of ferns in our surroundings. Since this class I have looked at each fern more closely and tried to identify it. It is still a challenge.

The learning and sharing from this experience helped me realize that plant people in general and especially those in Western Carolina Botanical Club like to share their plant knowledge with others. As individuals we share on our weekly outings. As a club we conducted a plant survey at the Cradle of Forestry so that a brochure could be made to help visitors identify the plants growing along the trails. We have volunteered to survey the plants along the nature trail at Bullington Center so that students can learn about the native plants in that area. We still need volunteers to participate in this project. Please contact Bonnie if you can help one day per month.

Cover: The flower on the cover is **Shortia galacifolia**, Oconee Bells. Our newsletter is named for this southern endemic which is now rare in the wild.
New Members

Lois McDaniel

Martha Adams: 305 Wagram Place, Hendersonville 28739. 689-268. Martha and her husband Robert moved here four years ago from Conn. She enjoys gardening and is a published poet.

Sarah Schade: 274 Hutch Mt. Road, Fletcher, NC 28732. 687-1024. Sarah’s love of nature and desire to learn of native plants brought her to the WCBC. She finds gardening in a wooded area in Fletcher quite different from her former home in Memphis, TN.

Susan Stone: 52 Edwin Place, Asheville, NC 28801. 828-236-1828. Susan learned of the WCBC when she met Helen Smith at the NC Arboretum. Both were attending a nature journalizing class. A native of NC, Susan is interested in wild flowers.

Change of Address and Telephone Number:

Peggy and Craig Ellis. 343 Lower Loop Drive, Fletcher, 28732. 651-9335

The Cumberland Falls State Resort Park in Corbin, Kentucky lies on the Cumberland Plateau, an area which is mainly sandstone with an acidic soil. In the Park itself there is found a sandstone called Rockcastle Conglomerate which is harder than most sandstones. The area has many natural arches, unusual looking rock formations, waterfalls and orchids, trilliums and a host of other plant life. The park is about a 4 hour drive from Hendersonville.

The Club is offering a three day trip to the Park on April 29 and April 30, 2002. The Park offers a special rate for groups of 20 people. This includes two nights in the historic Dupont Lodge and 6 meals all for $117 per person double occupancy or $138.50 for a single. However, to qualify we need 20 members who are willing to send a registration fee of $25 to reserve a place. We have 8 registered, so 12 more to go! If we don’t make the 20, all reservation fees will be returned.

This is an opportunity to see a very unusual ecosystem, stay at a resort park and enjoy the company of other Club members and at a very reasonable rate. So send your $25 check to Jan Fishback, 516 Panther Bridge Road, Canton 28716. Make your check payable to the Western Carolina Botanical Club. Accommodations in state parks are in great demand, so we need your reservation fee as soon as possible.

Eagle Falls
-Pat Arnett
Impressions and Reflections

Nineteen members of the Botanical Club spent several days at the Francis Beidler National Audubon Sanctuary canoeing deep into the swamp, walking the 6500 foot boardwalk through the old growth swamp woods and exploring with a guide some of the open pine woods which surround the swamp. After the trip members shared their thoughts.

day....

the brilliant white of the Atamasco Lily, *Zephyranthes atamasca*, in the swamp woods

the brilliant white of the Tread-softly or Stinging Nettle, *Cnidoscolus stimulosus*, in the pine woods and the white ibisis at the Lake dusk...

sitting together around the 1000 year old Bald Cypress as the day creatures of the swamp became quiet and the night creatures began to stir dark...

the splash of an alligator at the Lake, a possum foraging on the far shore, the red reflection of spider eyes and the far-off cry of the barred owl very dark ...

walking two by two the last half mile of the boardwalk with only an occasional glimpse of a quarter moon reflected on the water canoeing...

going back in time ... absorbed by nature...a place untouched by man

and... the yellow-crowned night heron along the boardwalk.. a stop at the science table in the Visitor’s Center to pick up a cypress knee and wonder at its lightness, and the huge cones of the Longleaf Pine, *Pinus palustris*.

The North Carolina Department of Transportation (NCDOT) has created the Monarch Butterfly Program to restore Common Milkweed, *Asclepias syriaca*, into established roadside wildlife habitat plots. The department’s Roadside Environmental Unit has already planted 40 acres of milkweed in 25 counties.

As the monarchs migrate from Canada to Mexico, some of the butterflies come through North Carolina. The milkweed necessary for the monarch’s long journey has been disappearing because of changes in land use. Milkweed is the plant of choice for monarchs who lay their eggs near or on milkweed plants so the larvae from these eggs will feed on the leaves.

In the early fall, look for these plots as you travel through our state and you may see the beautiful bright orange and black monarch butterflies.
Our 2001 season got off to a non-Hardy Souls start with a pleasant walk along Butter Gap Trail near the Fish Hatchery. The only blooming plant noted was Witch Hazel, but it was possible to identify four lycopodiums, two berries and several other green plants by their leaves or fruits.

What should have been called our Hardy Souls walk was the March 23 walk on the Bradley Creek Trail. A few days before, 10-16 inches of snow fell, making the trail wet and treacherous. Most plants were identified by their leaves, but Trailing Arbutus (Epigaea repans), Solitary Pussyltoes (Antennaria solitaria) and two violets were in bloom.

High water in Carrick Creek at Table Rock State Park prevented our making the usual loop walk, so backtracking was required. Spring started late this year, so we did not see as many blooming plants as we did on last year’s walk. Notably absent was the Pinxter Flower (Rhododendron periclymenoides) which was a highlight last year.

The Corneille Bryan Nature Center (Maxilla’s Garden) demonstrates what can be done with a piece of “waste” land in an urban setting. This entire hillside has been transformed into a wildflower “learning center”. Most plants have been introduced.

The day was hot, but spring flowers were in abundance on the Green River/Cove Creek walk. Flowers were blooming here as much as three weeks earlier than in our higher elevation areas. Thirty-nine blooming plants were identified.

A red Buckeye dominated the trail at Glassy Mt. Preserve in SC. Fringe Trees (Chionanthus virginicus) were at their peak along the trail and Blue Star (Amsonia tabernaemontanum) decorated our lunch site. Elf Orpine (Sedum smallii) and Mountain Sandwort (Minuartia groenlandica) maintain a precarious existence on the bare rocks. We compared the Woolly Lip Fern (Chelanthhes tomentosa) and the Hairy Lip Fern (C. Lanosa).

Trillium were once again abundant and spectacular at Pacolet Falls. We admired the “double” Dogwood, Pinxter Flower (Rhododendron periclymenoides) and Pinkshell Azalea (R. vaseyi) at the Botanical Garden at Asheville. The big “find” of the day was a blooming Whorled Pogonia (Isotria verticillata).

Nineteen members participated in the Beidler Forest/Four Holes Swamp trip to SC. The following Monday, 14 members enjoyed a leisurely stroll along the Davidson River to Sycamore Flats. The Cream Violet (Viola striata) and Foamflower (Tiarella cordifolia) were abundant; and we even found the elusive Pennywort (Obolaria virginica).

Coleman Boundary lived up to its reputation for variety and abundance of wildflowers. Our May checklist for this site now contains 150 species.

It gave me great pleasure to welcome the club to our mountain cove (called the Jones Farm on the schedules). We hit the Vasey’s Trillium (Trillium vaseyi) and Showy Orchis (Galearis spectabilis) at their peak and the tiny Appalachian Twayblade were in bud. Habitats included a weedy roadside, sphagnum bog, sunny meadow, creekside trail and rich mountain cove.
AWARD

Gary Kauffman was recently honored as one of an elite group of three botanists for his work in "species conservation, community restoration, partnership and plant materials development". The award was announced at the U.S. Forest Service’s American Wildlife and Natural Resources Conference in March of this year.

Gary is a botanist with the Nantahala District of the U.S. Forest Service. The award recognizes his leadership in a project to collect and develop a native seed mixture. The mix would be targeted for disturbed areas as well as those locations designated for exotic species eradication. One of the goals is the development of fast growing seed mixtures which can be produced economically for both the government and the private sectors.

Another goal is to collect seeds from numerous populations of each individual species to ensure a rich diversity of genetic material. Reestablished plants should be genetically related to nearby populations in order to ensure the long term success of the establishment.

Indian Grass
(Sorghastrum nutans)

Seed collection was completed in 12 contiguous mountain counties. Potential native species selection criteria included:
1) cool and warm season grasses;
2) forbs* with showy flowers;
3) plants with the ability to persist and compete in a frequently disturbed habitat;
4) plants abundant across the range studied with dispersed individual populations;
5) plants successfully grown in the horticultural trade;
6) plants with congener species occupying similar habitat in other parts of the United States and known to be effective in establishment on disturbed roadside sites in their natural range and
7) plants with seeds that mature more or less simultaneously and are shatter resistant.

Most of Gary’s activities occurred during after duty hours.

Gary reports that grasses which look promising are Little Blue Stem, Indian Grass, Red Top or Greasy Grass, Plume Grass, Virginia Wild Rye and Bottlebrush. Wildflowers that show potential include Hairy Coreopsis, Tri-lobed Black-eyed Susan, Wild Quinine, Appalachian Beardtongue, Wavy-leaved Aster and Grass-leaved Golden Aster.

One of the targets for reseeding is the Blue Ridge Parkway. Hopefully in the future we can drive the Parkway and see a restoration of native grasses.

*A forb is a broad-leaved flowering plant as distinguished from grasses, sedges, etc.

Gary Kauffman will be our leader on a guided tour of a serpentine barrens located near Franklin N.C. Watch for this September field trip in the next Club Schedule
THOSE LATIN NAMES ........................................... Betty Jones

Have you ever noticed how often we ascribe human or animal features to inanimate things, like the "mouth" of a river or the "head" and the "foot" of the stairs? The people who gave names to plants, noting the similarity between a part of a plant and some animal structure, did the same thing and incorporated the structure into the plant name. I started this article thinking I could cover the body from head to foot, but found that so many body parts were used that I had to limit this piece to structures above the neck. Examples:

**Cephalo-** (Greek) refers to the head. Consider *Helianthus microcephalus* or Small Wood Sunflower. *Micro* (small) and *cephalus* (head) refer to the relatively smaller head of this *Heli* (sun) *anthus* (flower).

**Crist-** (Latin) means crest. Thus we have *Iris cristata* (Crested Dwarf Iris), *Platanthera cristata* (Crested Fringed Orchid) and *Cladonia cristatella* (British Soldiers) whose other common name is Red Crest Lichen.

**Coron-** (L) is crown. We see this root in English words: "Coronation" and "coroner" which literally means "officer of the crown". In plants we have *Coronilla varia* (Crown Vetch) whose flower heads resemble fancy pink crowns.

**Auri-** (L) refers to ears. On our walks we find *Coreopsis auriculata* (Eared Coreopsis) which have a pair of earlike lobes at the base of the leaf blade.

**Corn-** (L) means horn. The genus name for Dogwood (*Cornus*) comes from this root. An English botanist John Parkinson said, "The wood ... is very hard, like unto horne, and thereof it obtained the name." The beautiful *Delphinium tricorne* (Dwarf Larkspur) takes its name from the horn-like extension of the upper petal. In *Corylus cornuta* (Beaked Hazelnut), *corn* refers to the horn-like projection on the nut.

**Capill-** (L), **Crini-** (L), **Pil-** (L) and **Tricho-** (G) all refer to hair. These roots give us *Crepis capillaris* (Smooth Hawk's Beard) *Adiantum capillus-veneris* (Southern Maidenhair), *Gentianopsis crinita* (Fringed Gentian), *Hieracium pilosella* (Mouse-ear Hawkweed), *Aster pilosus* (White Heath Aster), *Galium pilosum* (Hairy Bedstraw), *Polycrichum commune* (Haircap Moss) and the genus *Trichostema* (Blue Curls) which have hairy stamens.

**Denti-** (L) and **Odonto-** (G) mean teeth. The botanical name for the Toothworts used to be *Dentaria* but has been changed to *Cardamine*. We still have *Sibbaldiopsis tridentata* (Wine-leaved Cinquefoil) which have 3 teeth at the apex of the leaflets. From the Greek we get *Corallorhiza odontorhiza* (Late Coralroot) whose name literally means "coral-like rhizomes, toothlike rhizomes (or roots)".

**Rostr-** (L) is beak. The *Viola rostrata* (Long-spurred Violet) might easily have been called Long-beaked Violet for the long backward-extending petal that resembles a spur or beak.

**Blepharo-** (G) refers to eyelashes. Hence, the root is used in names for plants which have fringed edges on the petals. *Plantathera blephariglottis* (Large White Fringed Orchid) is a good example. The *glottis-* (G) in that name means tongue; the lower petal of the flower does indeed resemble a tongue with lashes.
The South Carolina Native Plant Society Symposium

Five members of the Botany Club attended the S.C. Native Plant Society Symposium which was held at the Riverbanks Zoo in Columbia, S.C. the first weekend in April. Saturday was devoted to classes and lectures and Sunday to field trips. Four of the field trips are summarized below by Anne Ulinski and Jeanne Smith.

Forty Acre Rock Heritage Preserve

This gigantic granite rock lies in Lancaster County, S.C. where the Sandhills meet the Piedmont. The entire Forty Acre Rock Preserve encompasses 1567 acres composed mostly of intermittent exposed rock and thin soil. It has been designated a National Natural Landmark.

Four Botany Club members joined other participants to visit this unusual site on a field trip led by Richard Porcher, Professor of Biology at The Citadel. Mosses and lichens thrive here and a few Eastern Red Cedars, Juniperus virginiana, rise from the shallow soils over a granite floor. We saw the rare sandwort, Minuartia uniflora, and the Appalachian Sandwort, Minuartia glabra, both in bloom.

But we were searching for an even rarer species, Amphianthus pusillus. This tiny plant is listed as rare in S.C. and globally threatened. A call from one of the leaders led us to a small vernal pool where we used our hands lenses to take a long and close look at this outcrop endemic. We saw a tiny plant with two floating opposite leaves on each stem, leaves which surrounded a solitary white flower. A common name for this plant is Pool Sprite. Diamorpha smallii, Elf orpine, and Sedum pusillum, Puck’s orpine, were two other rock plants at this site.

Savage Bay Heritage Preserve

Savage Bay with its 69 protected acres is an example of the Carolina Bay phenomenon. These bays are elliptical basins found throughout the Atlantic Coastal Plain, but mostly within North and South Carolina. They are actually wetlands which support abundant wildlife and several rare, threatened and endangered plants and animals.

Savage Bay is located in the Fall Line Sandhills region. About half of the site is Carolina bay habitat with most of the remaining old agricultural fields. Longleaf pine, Pinus palustris and broom sedge, Andropogon virginicus, are the dominant vegetation. An imposing canopy tree is Pond Cypress, Taxodium ascendens.

We visited the larger of the two bays at the Preserve which was unusually dry so we were free to wander around without wading through water. We had to push through some dense brush to reach the center of the bay. Some of the plants we saw in the bay itself or walking to reach the site were: Red root, Lachenanthes caroliniana, Pink Sandhill Lupine, Lupinus villosus, Shining Fetterbush, Lyonia lucida, and Chickasaw Plum, Prunus angustifolium.

-Anne Ulinski
Symposium Field Trips (continued)

Shealy's Pond Heritage Preserve.
This Preserve is a 62-acre tract with an old mill pond surrounded by an Atlantic White Cedar bog that supports several rare plant species: Rayner's blueberry, Sundews and Pitcher Plants. A glorious display of Golden Club, Orontium Aquaticum, covered almost the entire surface of the pond.

We were too early on April 8 for the carnivorous plants to be in bloom. Our leader, Gill Newberry, stated that May 5 is the date for the best blooming period. We saw only one Saracenia flava in bloom after bushwacking through the cedars not being able to avoid stepping on the spagnum moss nurseries of tiny sundews and just emerging pitcher plants.

Until the Preserve can afford a boardwalk or at least a designated trail, I would not recommend any group visiting this site for the sake of the plants.

Golden Club
Orontium Aquaticum*

Peachtree Rock Preserve.
This preserve encompasses 305 acres of diverse ecosystems. The area harbors the largest sandstone outcrops rich in marine fossils found in South Carolina.

Of the various plant communities within the Preserve, the sandhill scrub vegetation held the most interest for this mountain resident. A hillside of white sand myrtle, Leiophyllum buxifolium, at its peak made an impressive botanical display. It was quite an experience to walk through this pine/oak woods and realize the sandy soil underfoot represented the ocean shoreline of eons ago. Special sand plants in evidence were: Carolina Epecac, Euphorbia ipecacuanhae, Fetterbush, Lyonia mariana, Hairy Lipfern, Cheilanthes lanosa, Spike Moss, Selaginella sp., Rosemary Shrub, Ceratiola ericoices, Sandwort, Arenaria carolinianum, Resurrection Fern, Polypodium polyoides and a unique woody Goldenrod, Solidago pauciflosculosa.

The South Carolina Native Plant Society is to be congratulated. This symposium was well organized, the leaders were knowledgeable, the programs varied and the zoo site unique as well as eye-appealing with its gorgeous plantings. Just the place for botanists to meet. Let's plan to go again next year.

-Jeanne Smith

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SHORTIA

A quarterly publication of the Western Carolina Botanical Club

Editor: Anne Ulinski
Editorial Assisting and Art Work: Pat Arnett

Please submit contributions for the next issue by August 15, 2001 to: Anne Ulinski
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The purpose of the Club is to study the plants of the Southern Appalachian Mountains and the Southeast through field trips and indoor meetings. Membership is open to all. Individual/family memberships are $12. New members joining from the period July 1-December 31, pay $6. All memberships are renewable on January first of each year. Please send dues to:

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SHORTIA

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FIRST CLASS