SHORTIA

NEWSLETTER OF THE

WESTERN CAROLINA BOTANICAL CLUB

Autumn 2001

Shortia galacifolia

Oconee Bells
Bartram Botanists

When we think of early American botanists the names of John and William Bartram come to mind. John is known as a plant collector and cultivator of one of the first botanical gardens in this country. When he and his son William made a plant survey of the area known as Florida in 1765 they discovered "severall very curious shrubs" in what is now coastal Georgia. Later William named one for his father's friend Benjamin Franklin. Today Franklinia altamaha is no longer found in the wild, all plants in gardens were grown from seed collected and propagated by the Bartrams.

William Bartram, called Billy, is remembered for his extensive travels in the southeastern United States. Dr John Fothergill was an admirer of Billy's art work and agreed to sponsor him on the plant collecting expedition that lasted four years. Accounts of his travels with flowery descriptions of the plants, animals and people of the area were published in his book The Travels of William Bartram. He spent his later years at the Bartram's Philadelphia home sharing his knowledge with traveling naturalists and his niece Ann.

Information about two influential Bartram women was recently collected and published in Bartram Broadside, the newsletter of Historic Bartram's Garden. Ann Mendenhall Bartram was the second wife of John Bartram. Shortly after their marriage they moved to his farm on the Schuylkill River, now known as Historic Bartram's Garden. Here she raised a family, she gave birth to nine children, and assumed the duties of an 18th century Pennsylania housewife---sewing, spinning, dairying, preserving food and gardening. As the wife of America's foremost botanist she also supervised the farm when he was away and helped with business correspondence. In 1763 Peter Collinson wrote "I am much obliged to thy good wife, for her kind Letter in thy Absence." Ann must have been a sturdy woman, she outlived her husband and assisted with the rearing of her grandchildren after their mother's death.

(continued on P.5)
Walker Harris: 138 Sassafras Ct., Highlands, N.C. 28741, 526-3692. Walker lives six months in Highlands and six months in Columbus, Ga. He is interested in wildflowers and hopes to soon join us on hikes in the fall after his recuperation from recent knee surgery.

James and Barbara Holmes: 75 Farwood Court, Flat Rock 28731, 698-9517. James and Barbara moved here a year ago from New Jersey where James was active in the Native Plant Society. Here he is a member of the Iris, Azalea, and Rhododendron Societies.

Mary L Merkle: 180 Tranquility Place, Hendersonville 28739, 692-9248 Mary, a former member, became interested once again through Ruth Hoerich. Mary is a former teacher from Michigan.

Poole, Kay & Edwin, 186 Cullasja Dr. Highlands, 28741, 526-2775.

Address Changes/Corrections

Ray Colmont and Lucie Strayer, Summer address: 18 Gagama Court, Connestee Falls, Brevard, N.C. 28712. Tel. 877-4551

Peggy Polchow, Hendersonville address: Route 20 Box 280, Hendersonville, N.C. 28739

Larry and Anita Avery, Telephone. 692-2679

UPCOMING TRIPS

Rock Creek Serpentine Barrens. Thursday, September 27 - Friday September 28

This is a guided tour to a very unusual ecosystem located near Franklin, N.C. We will have a guide -- Gary Kauffman, Botanist with the U.S. Forest Service. Gary's knowledge of serpentine habitats will make this an especially interesting botanical field trip.

We will stay overnight in Franklin on Thursday, September 27. Thursday evening Gary will present a slide program on the rare plants of North Carolina and will brief us on what we will be seeing on Friday at the Barrens.

Reservations for Thursday night should be made at the Hampton Inn, Franklin, N.C. Telephone: 828-360-0600. Please let Anne Ulinski know if you plan to make this trip. (Tel: 697-9527, e-mail <anne@iaa.com>). If you are interested in carpooling, contact Helen Smith, 883-4946 for those living around Brevard, and Anne Ulinski for those near Hendersonville.

Cumberland Falls State Resort Park, Corbin, Ky. April 28, 29 2002. Registration is now closed for this trip with twenty-four members registered. Jan Fishback is maintaining a waiting list. Contact Jan (648-7842, e-mail <fishback@haywood.main.nc.us>) for more information.
Do you remember that before the invention of radio, ships that passed in the night communicated with each other by using a bright light and the Morse Code of dots and dashes? Fireflies were doing that a million years ago!

....Fireflies were all around me as I lay in my hammock until well after dark. Of course, they really aren’t flies at all. They are beetles and there is no “fire” either. It is what is called “cool light” and only recently have scientists begun to understand this mysterious glow. The lights we see are all males looking for (what else?) mates. The females sit patiently in the grass waiting for lovers. There may be three or four different kinds of fireflies above but a female must mate with one of her own species. Fireflies can make no sound, so how do they communicate? She “reads” the length of his glow and/or the length of the interval between glows. If she gets the right signal, she turns on her own little glow pot saying “C’mon down and see me.” Her carefully timed message lures him to her side.

And this explains why fireflies go around flashing their lights.

Book Review.........................................................Ruth Anne Gibson

Ready for a mystery? What about a story set in nearby northwestern North Carolina that includes a contest identifying wildflowers? Read Incident at Roan High Bluff by William Rowan, a mystery of international intrigue. This book weaves a tale that takes place in twelve square miles of wilderness in the Roan Mountain area along the North Carolina-Tennessee border. The towns of Buladean and Bakersville figure in the adventure.

The Southern Comfort tour composed of three buses are scheduled for a stop at Carvers Gap on Roan Mountain to view the rhododendrons and participate in the wildflower contest. Later as the three tour buses leave Roan Mountain there is confusion about which bus some have boarded. The next stop at Grove Park Inn in Asheville reveals that five are not on any bus. The tale continues of how four tourists survive five days in the wilderness. But where is the fifth tourist?

Botany Club members, can you guess what plants the four members find to aid in their survival? Or can you guess why the lost tourists spend their days hiking through rough terrain always at the same elevation? Check out this book from either the Henderson County or Transylvania County libraries to learn more about the lost group and what happened to tourist number five.
Recorder Ramblings

After an extended period of dry weather, rain finally arrived in mid-May and resulted in the cancellation of four consecutive walks, one being the very popular Blue Ridge Parkway South walk.

The recorder for the Tanbark Tunnel walk commented on the impressive display of Wild Geranium (Geranium maculatum) all along the trail. Also noted were the Shooting Stars (Dodecatheon meadia) and the Whorled Pogonia (Isotria verticillata). Seventy-nine plants were identified including 11 species of ferns.

The timing of the Pilot Mountain walk (May 14) was perfect as the Pinkshell Azaleas (Rhododendron vaseyi) were at their peak. At trail-side were Painted Trillium (Trillium undulatum) and the dainty Rose Twisted Stalk (Spiranthes roosei). The panoramic views at the mountain top were well worth the twisting climb.

Rain caused cancellation of the Ashmore Heritage Preserve walk but the scouting report convinces me that we should reschedule this walk for next year. Observed were Grass Pink (Calopogon tuberosus), Sweet Pitcher Plant (Sarracenia jonesii) and, probably, Horned Bladderwort (Utricularia cornuta) near the pond.

By the time of the mid-June walk at Tanbark Tunnel, the Wild Geranium, Shooting Stars and Whorled Pogonia had faded and Goatsbeard (Aruncus dioicus), Galax (Galax aphylla) and Small's Penstemon (Penstemon smallii) were abundant. On a rock outcrop was a large patch of Prickly Pear (Opuntia humifusa) in bloom.

The sun was shining as we began our walk from Black Balsam to Flat Laurel Creek. Botanizing was good – we identified 72 plants – as we passed Hawkweeds, Bluets, Twayblades, Lesser Stitchwort (Stellaria graminea), Michaux's Saxifrage (Saxifraga michauxii), Wood Strawberry (Fragaria vesca ssp. americana) and the large patches of (planted) Monarda and Penstemon. We lunched at Flat Laurel Creek and had barely finished when the rains came. It was a soggy 15 walkers who slogged up the trail and back to the cars.

The walk at Bee Tree Gap finished out the schedule for the first half of the year. We were about a week early for the Turk's Cap Lily (Lilium superbum), but the Purple Bluets (Houstonia purpurea), Gray Beardtongue (Penstemon canescens) and Fire Pink (Silene virginica) were at their peak. Several Columbine (Aquilegia canadensis) were still in bloom. On the slope across the road from our parking area was the shrubby Glaucous Honeysuckle (Lonicera dioica) – seldom seen on our walks.

There were clouds but no rain as we walked a comfortable loop at Graveyard Fields. Galax (Galax aphylla) had already passed its prime and the abundant Shrubby St. John's-wort (Hypericum spatulatum) had barely begun to bloom. Grass-of-Parnassus (Parnassia asarifolia) and the Kidney-leaved Twayblade (Listera smallii) were found tucked down among other trail-side plants.

A repeat visit to Bee Tree Gap on July 20 was interrupted by rain. Highlights of the walk were Tall Bellflower (Campanula americana), Bee Balm (Monarda didyma), Carolina Phlox (Phlox carolina) and Fire Pink (Silene virginica). Eighty-five species were identified.
NatureServe is a new online "encyclopedia of life" developed by the Association of Biodiversity Information. It is now available at <www.natureserve.org>.

NatureServe provides authoritative conservation information in a searchable database for more than 50,000 plants, animals and ecological communities. Maps show where each species and ecological community occurs and how rare or common it is across its range. The site describes species' life histories and habitat requirements.

In identifying endangered and protected species, descriptions are of species' life histories and habitat requirements, the threats they face and management strategies for their protection.

Vascular plants, vertebrates, invertebrates, non-vascular plants, more than 4500 ecological communities and a selection of established non-native plants and animals are included in the encyclopedia.

The Association for Biodiversity Information (ABI) is a non-profit organization dedicated to developing and providing knowledge about the world's natural diversity. For more information go to <www.abi.org>. Alan Weakley serves as Chief Ecologist for ABI and Rickie White as Regional Vegetation Ecologist. (For more information about Alan Weakley and Rickie White see p. 8).

Bartram Botanists (continued from p. 1)

Granddaughter Ann Bartram Carr lived most of her life on the Bartram farm. As a young girl she learned household chores and she studied drawing and botany with her Uncle Billy. A traveler recorded "we then turned to talking about botany, a field to which she was no stranger, for she knew the names of many plants and could apply the system of Linnaeus". At fifteen she assumed the duties of housekeeper for her widowed father. After her marriage she and her husband managed the botanic garden and revitalized the commercial nursery. Her husband was a printer by trade and it is acknowledged that Ann was the botanist and manager of the nursery business.

After Ann's death this obituary appeared in the Gardener's Monthly: "We regret to announce the death of Mrs. Ann Bartram Carr, the last of the distinguished Bartram botanists. Mrs. Carr inherited the fondness for Botany and Gardening for which her forefathers are so famous. So closely allied are these names with the history of American Botany and Horticulture, that a memoir of the lady will be read with much interest by our readers." We would know more about this remarkable woman if the memoir had been published.
Let's continue our look at body parts that appear in the Latin names of plants. In the Summer 2001 issue of Shortia, we started with structures that appear on the head. Now we will consider the rest of the body, in particular, features on the exterior of the body.

**Brachi-** (Greek) means arm. This root appears in Sabatia brachiata (Narrowleaf Rose-pink), probably referring to the branches or 'arms' coming off the main stem. This root should not be confused with brachy which is Greek for 'short'.

**Ala-** (L) and **Ptero-** (G) refer to wings. In Lythrum alatum (Winged Loosestrife), the reference is to the wing-like structures on the stem. The wing-like shape of the fronds gives Pteridium aquilinum (Bracken) its name.

**Gonato-** (G) is knee. Polygonatum or 'many knees' is the genus name for Solomon's Seal whose roots have many joints or 'knees'.

**Digitii-** (L) refers, of course, to digits or fingers. One thinks first of Digitalis (Foxglove) which was so-named for the finger-shape of its flower. In the wild we have Penstemon digitalis (Foxglove Beardtongue) whose flowers have the same finger shape as Foxglove. In 100 Flowers and How They Got Their Names, author Diana Wells says that “Foxgloves tend to grow on woody slopes where foxes' burrows are often found.” Combine this with the glove or finger shape of the flower and you have Foxglove.

**-seta** (L) refers to bristles. This root occurs in our plant lists in Polygonum cespitosum var. ‘ongisetum or Long-bristled Smartweed. Those long bristles (1/4 to 3/8 inches long) appear at the sheath that surrounds the stem at each of the swollen leaf joints.

**Spinii-** (L) are spines - the thorny, not the bony kind. The Sida spinosa (Prickly Mallow) has a short spine at the base of each petiole. If you are familiar with Aralia spinosa (Devil's Walking Stick), you recognize that it is aptly named.

**-lepis** (G) refers to scales. We find this root in Bidens polylepis whose name literally means "two-teeth, many scales". "Two-teeth" refers to the two barbs that catch on one's clothing as one walks by. I have been unable to find the reason for "many scales". This plant has several common names: Bur Marigold, (Ozark)Tickseed Sunflower and, my favorite, the name used by Dick Smith - Ditch Daisy.

**-pinna** (L) is the root for feather. We use this root whenever we say that leaves are 'pinnate', that is, arranged featherlike on either side of a common axis. The beautiful Purple Phacelia is named Phacelia bipinnatifida because its cauline leaves are twice or bi-pinnately divided. In ferns, a pinna is the leaflet or first division of the leafy part of the frond. The pinnules are divisions of the pinnae (plural of pinna).

**Pedi-** (L) and **Podo-** (G) refer to foot. Cypripedium acaule, literally translated, means Venus' (Cypri) slipper (pedium) stemless (acaule); we call it Pink Lady's Slipper. Acaule refers to the fact that it has no leafy stem. Podophyllum peltatum (Mayapple) means foot (Podo) leaf (phylum) with the leaf attached to the stem at the center, not at the edge (peltatum).
The landscape architect, Doan Ogden contributed greatly to the gardens of Asheville and the nearby regions of North and South Carolina, Georgia, Tennessee and Virginia. He grew up in Michigan and got his early gardening experience working in neighbors' gardens. He received his degree in landscape architecture from Michigan State University just as the stock market crashed in 1929. He was fortunate to obtain a position at the Farm School, now Warren Wilson College. For the next four years he supervised student work groups in landscaping the campus. During those years he married Rosemary Mason and he and his wife grew to love the southern Appalachian area with its natural beauty and diversified flora.

Doan's position at the Farm School was dropped because of the Depression, and he and his wife returned to Michigan where he worked as chief landscape architect for the Pontiac Nursery Company. Each summer the Ogden's returned to vacation in Asheville and they resolved to return permanently as soon as possible. In 1948 Doan Ogden was able to establish his practice in Asheville and for the next 41 years until his death, he added beauty to the whole region through his landscape designs for over 2000 clients.

In 1960 the Asheville-Biltmore Botanical Garden was established (now the Botanical Gardens at Asheville). Doan was attracted to the project by its goals not only to conserve and display the native plants of the region but to educate the public about these plants. These goals were consistent with his own interests and beliefs so he accepted an offer to advise on landscape architecture for the Gardens.

Doan had an exceptional ability to visualize an esthetically pleasing landscape from a topography. He applied this talent to the area set aside for the Botanical Gardens. His plan was to build attractive trails that led sequentially through contrasting areas so the visitor progressed from one experience to another. Though the development of the Gardens has continued over the years, Doan's initial plan still forms the basic pattern.

Today the design is seen as the visitor is led from the entryway and visitor's center across a bridge to a meadow, then by a woodland path up and around a hill to another lawn near the frontier "dog-trot" cabin. From there the path continues down a cove, past a seep, and along a tiny stream to a large meadow surrounded by trees, shrubs and wildflowers. Here the visitor walks through a woods beside a fast flowing and splashing stream over two bridges and back to the entryway.

The Gardens today stand as a memorial to many dedicated volunteers of whom Doan Ogden was certainly among the first.

Lowell Orbison, who wrote this article for Shortia, is himself a dedicated volunteer at the Botanical Gardens at Asheville and a long-time member of the Botanical Club.
Doan Ogden's home and gardens are located in south Asheville. They are now owned by John Cram and are sometimes open to the public.
The campus of Haywood Community College was also designed by Doan Ogden.
For every man
the world is as fresh as it was at the first day
and as full of untold novelties
for him who has the eyes to see them.

-T. H. Huxley

We have had and now have many knowledgeable members in the Club but never have I known one who could say he knows it all. In fact I've often heard knowledgeable members say of a plant identification, "I don't know". The ancient Chinese masters taught that the "don't-know" mind is forever fresh, open and fertile with possibilities. They also called it "beginner's mind". *

This month, Tom Ferguson, a fellow volunteer working on the Carl Sandburg Herbarium project, and I spent a few hours with two professional botanists, Alan Weakley and Rickie White. Both men are now working for the Association for Biodiversity Information. Alan and Rickie were spending four days in Flat Rock laying out plots for an extensive monitoring and mapping project at the Carl Sandburg National Historic Site.

Tom and I took some specimens collected on Sandburg property to the meeting - specimens whose identity was uncertain to us. One of the plants in question was a lysimachia Tom had collected in a seep near a rock outcrop. We had identified it as *Lysimachia quadriflora*, prairie or smooth loosestrife.

That evening we each used our "don't-know" or "beginner's" mind as we studied the mounted specimen. A problem was that this plant is far from common in N.C. Alan has listed it in his *Flora of the Carolinas and Virginia, Working Draft of May 15, 2000* as "very rare and scattered in or east of the Appalachians".

If the botanists confirm the *L. quadriflora* identification, this could be a state record.

Alan and Rickie wanted more time to study the plant and so we have yet to hear if our identification is correct.

*Lysimachia quadriflora*

*From "We Are All Beginners", *Meridians*, Autumn 1998.*
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Editor: Anne Ulinski  Editorial Assistance: Pat Arnett

Please submit contributions for the next issue by November 15 to: Anne Ulinski
1212 Chanteloupe Drive, Hendersonville, N.C. 28739

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:

Rachel Conway, Treasurer
211 Aldersgate Circle
Asheville, N.C. 28803

SHORTIA
c/o Anne Ulinski
1212 Chanteloupe Drive
Hendersonville, N.C. 28739

FIRST CLASS

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