SHORTIA

NEWSLETTER OF THE

WESTERN CAROLINA BOTANICAL CLUB

FALL 2005

Shortia galacifolia

Oconee Bells
A Communication with Nature — sitting on a log in the Georgia Piedmont, 1971

The forest floor speaks to me,
Slowly at first, a word at a time,
But then more quickly, until with a rush,
All is slurred in a summer shower.

We certainly have had more than our share of thunderstorms this season. The extremely wet weather from thunderstorms and remnants of hurricanes during these last three summers has interfered with a number of Club outings. It has also affected the vegetation we observe on these outings. On drier sites the wetness has produced a more-abundant flush of vegetation, but on normally wet sites, the excess moisture has likely stressed many plants and perhaps killed some off. That has certainly been the case in my "bog" by the brook.

An interesting question is whether this extreme wetness is just a short-term deviation from normal, or is it an indication of a long-term trend toward a wetter climate associated with global warming. Of course, these recent wet years were preceded by a string of drier years, so who's to say?

One thing is certain, Mother Nature will always strive to make sure that life goes on. In the face of thousands of years of drastic temperature changes during past glaciations, and subsequent coastal inundations from rising sea levels due to glacial melting, plants have been able to "migrate", to shift the range in which they occur following changes in climate. The critical question now is whether conditions are changing too rapidly for plants or ecosystems to "migrate".

These pressures on native flora may pale in relation to the glaring impacts of development and construction in our area, but in the long-term period of hundreds to thousands of years, they will likely have an overriding impact, for better or worse.

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

Carolyn Alperin, Horse Shoe. Carolyn lives behind the post office in Horseshoe but has a Hendersonville address. She is a pharmacist for Eckerd's in Laurel Park and hopes to join us every other Friday when she is off work. She likes to garden and is interested in identifying native wildflowers.

Alan Graham, Brevard. Alan moved to Brevard in 2005. He joined the Master Gardener program in Brevard and helps maintain trails in Pisgah National Forest. He wants to know more about the plants he sees.

Pierre Hart, Etowah. Pierre is a master gardener and interested in learning about native wildflowers. He was a former professor of Russian.

Linda Hauschild, Pisgah Forest. Linda came from Rochester, N.Y. one and a half years ago where she was an occupational therapist. She has been interested in flowers since childhood and wants to know more about the wildflowers here.

Eunice Nichols, Arden. Eunice and her husband moved here 12 years ago from Long Island, N.Y. Every spring they go to the Blue Ridge Parkway to see bloodroot. She is interested in native wildflowers and where they grow.

Cindi Probst, Asheville. Cindi came to Asheville from Clearwater, Fla. but has lived many places. She loves flowers and nature and likes to photograph them. She wants to learn more about identifying plants.

Carol Repici, Hendersonville. Carol and her husband divide their time between here and Cape May, New Jersey. She bid on a wildflower walk that Bonnie Arbuckle offered at a church auction. Carol appreciates the expertise of our group and their willingness to share their knowledge with a beginner.

Harriet Walls, Brevard. A former member, Harriet has been interested in wildflowers for a long time and was a founding member of the Georgia Native Plant Society. She lives in Sherwood Forest and has joined the Transylvania Native Plant Rescue Group.

Change of address, e-mail or telephone number please inform Larry Avery at 4 Windrush Lane, Flat Rock, N.C. 28731, Tel. 692-2679, email: alavery@cytechusa.com
Ramblings

Surprise! Surprise! The Davidson River walk was conducted under sunny skies for a change. The effect of last year's flooding was evident; the swinging bridge was out of commission and we had to modify the normal walk route. Otherwise, a pleasant walk on level ground. We saw Dyer's Woad (Isatis tinctoria) that has not been logged into our walk reports before.

Pilot Mountain presented a little different challenge this year as the road past the Fish Hatchery was closed due to a mudslide from last year's hurricanes. We had to come in the “back door” which was very dusty especially if you were in the last car! We were a little early for most everything. Interrupted Ferns (Osmunda claytoniana), which are plentiful, had hardly broken ground.

The Spring Picnic at Ramblewood was its usual success. Don made us welcome (?) and Dana led the tour before we chowed down. Afterward lots of folks scrambled over the front yard collecting samples of Birdfoot Violet (Viola pedata) to transplant at home.

Silver Run Preserve is the largest Nature Conservancy-owned property along the Blue Ridge Escarpment. The walk was a follow up to an indoor presentation last winter. Dan Pittillo accompanied us pointing out several interesting species including gametophytes of the Appalachian Shoestring Fern (Vittaria appalachiana).

We were two weeks later than usual for the walk to Tanbark Tunnel - Rattlesnake Lodge. The Whorled Pogonia (Sotria verticillata), which is a highlight of that walk hadn’t started blooming yet. However, we saw lots of other goodies such as Clinton's Lily (Clintonia umbellulata), Wild Sarsaparilla (Aralia nudicaulis), and Small-flowered Phacelia (Phacelia dubia).

Ashmore Preserve is one of our best bog sites. We were rained out last year and it threatened this year but we went anyway. It turned into a nice trip. The rain held off until we were almost back to the cars. The bog area was loaded with Water Sundew (Drosera intermedia), Rose Pogonia (Pogonia ophioglossoides), Grass Pink (Calopogon tuberosus) and Horned Bladderwort (Utricularia cornuta).

The walk through Fernhaven led by the Lamberts was a treat as usual. We viewed new additions including walkways, stairs, and bridges that have kept Larason busy.

The walk at Kanuga Conference Center was focused on grasses. This was a follow up to an indoor session from this past winter given by a USFS botanist, Gary Kauffman, on grasses. Unfortunately the botanist was ill and couldn’t lead the walk. Several club members jumped into the breach and covered several grasses that we saw including Fringed Sedge (Carex crinita). We also saw one of the largest patches of Sweet Pitcher Plants (Sarracenia rubra ssp. jonesii) that we have seen.

We had a great day walking the meadows of the Kellogg Center on our second visit of the 2005 season. Most striking among the tall grass was the Ragged Fringed Orchid (Platanthera lacera) that we hadn’t seen here before.

Tom Goforth led a new walk to Shy Valley Farm in Tennessee limestone country. As is customary for Tom’s walk we forded streams and bushwhacked our way through the underbrush. We saw interesting rocks millions of years old containing fossils of sea creatures. Fern species of note were the Maidenhair Spleenwort (Asplenium trichomanes) and Black-stemmed Spleenwort (Asplenium resiliens), in addition to a large colony of Walking Fern (Asplenium rhizophyllum).

The Annual Meeting was held in the summer for the first time in an effort to attract more of our seasonal members. A short walk over one of the Holmes State Forest trails was conducted preceding the meeting. The meeting highlight was a presentation to John Murphy of the Bullington Center for his efforts to educate the public and children in particular into the world of nature. A covered dish lunch was enjoyed by all.

The walk at Haywood Gap presented a glimpse of the “other side of the mountain” from Bear Pen Gap (a walk for later in the year). After a moderate climb we found a beautiful meadow filled with a variety of wildflowers including Clammy Azalea (Rhododendron viscosum), Fly Poison (Amianthium muscaetoxicum) and Leatherflower (Clematis aliboma).
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<th>Common Name</th>
<th>Family Name</th>
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The Botanical Club Recognizes Bullington Coordinator

At our annual meeting in July, the club recognized John Murphy for his many programs educating children and adults about the wonders of our natural world and for teaching us all to be good stewards of our mountain lands.

In the recognition speech, Alan Mizeras quoted a column by National Wildlife President, Larry Schweiger, in the June-July 2005 issue of the National Wildlife Federation Magazine:

“Our children are disconnecting with nature. The average suburban young person has little relationship to increasingly distant wild places. By the time they are seven years old, most youngsters have been exposed to more than 20,000 advertisements. They can identify 200 corporate logos, but they cannot identify the trees growing in their front yards. They can navigate the web with ease, but few of them have even climbed a tree, and even fewer have the love of nature needed to be good stewards. How can they be good stewards if they don’t care about trees, wildlife or wild places?”

Mr. Schweiger goes on to say: “..I wish every conservation-minded adult would take a moment to introduce just one child to just one tree. It’s a small step but who knows what little actions like this can stimulate childhood curiosity? How can we expect our children to care if you and I don’t help them make the critical connections to nature while they are young enough to have their values shaped?..If you want to do something for nature this season.. plant a seed in the heart of a future steward.”

Alan continued:

“In the Spring of 2004, John Murphy, coordinator at the Bullington Center, created a program for children, Kindergarten-4th grade, called “What Makes a Tree Grow?” and during those few spring months he planted a seed in the minds of each of the 1162 children who took part in that program.”

“But that is only a small part of John’s contributions through his work at Bullington. For the school year 2004-2005 there was his Pumpkin Patch project (698 children), Plant Explorations (745), Wildlife Interactions (258), and Plant Math (147). Also new this year, each of eight county schools planned and planted a winter garden which the students designed. The seeds were purchased within a budget and raised in the greenhouse until ready for planting. An award was given for the best garden. There were 276 students taking part in this project.”

“In 2003, John and designated representatives of the Henderson County School System sat down to develop a program to challenge the special needs students at the four high schools. The program was to be called Bullington Onsite Occupational Student Training or simply BOOST. This year there were 27 graduates
in the BOOST Program. A short ceremony was held on May 24, for the purpose of giving some special awards to students whose efforts were exemplary. This was a new feature. With the help of volunteers, John has continued to develop BOOST in order to challenge these students to consider our county's growing horticulture industry. Several students have found that planting plants is their 'thing' and most of the others enjoy being at Bullington and doing the work necessary to maintain the facility."

The Botanical Club has had a close relationship with the Bullington Center since we had our indoor meetings there in 2001. We began an inventory of the plants on the property. This is a continuing program. Members have donated native plants from their home wildflower gardens and we have presented a wildflower identification workshop at Bullington Center for the last three years.

After the recognition speech, John was presented with a certificate of appreciation, a book, and a check for $200.

DID YOU KNOW?

Linnaeus' birth name was Carl von Linne but while he was devising his well-known system of classifying plants, he latinized his own name to Carolus Linnaeus.

No plant lives in isolation. There are always other creatures or plants nearby that are companions and there is always a reason for them to be together. Native plants evolved symbiotic relationships with insects, bacteria, and other minute creatures living in the soil. These, in turn, keep trees, other plants and animals—and eventually people—healthy. This fragile web of life took millions of years to develop. When people disparage "tree huggers" because they want to save the tree for a small bird or large butterflies, it's not some wacky spaced-out concept. Every organism depends on other organisms for survival. For example, without lupines there would be no Kramer blue butterflies, and without them to pollinate the lupines, the plants would become inbred and eventually die out. You can't save a plant or an animal in isolation, you have to save the whole habitat.


"When one tugs at a single thing in nature, he finds it attached to the rest of the world."

- John Muir

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Anyone seeing *Euonymus americanus* for the first time when it is in flower may be excused for raising an eyebrow at being told that its popular name is "Hearts a'Bustin' with Love." After all, the flowers (which bloom just when the spring woods are their prettiest) have little going for them. They are sparse in number, modest in size, and so flat as to appear almost two-dimensional. And their color is so undistinguished that no one label suits; one must call it something like "pale creamy purplish yellow-green."

But a return visit in September furnishes all the explanation that is needed for the quaint colloquial name. Where the drab little flowers had been there now are brilliant pink, warty capsules opening up to expose shiny vermilion arils, which in turn enclose the seeds. These colorful fruits also account for another name, "Strawberry Bush."

Although many of us are not aware of it, the "Hearts a'Bustin'" appellation is also given to a similar species, *Euonymus obovatus*. Both are square-stemmed bluish green shrubs with flowers that are virtually identical, but *Euonymus americanus* is erect and may attain a height of six feet, while in *E. obovatus* the main stem is prostrate and the ascending branches do not exceed two feet. For this reason, the latter is sometimes called "Running Strawberry Bush." The specific name also holds another clue; the leaves are obovate, or widest above the middle. The most striking difference, however, is seen in the fruits, which in the case of *E. americanus* are usually five-lobed whereas those of *E. obovatus* split into only three parts.

Both of these shrubs belong to the Staff-tree Family, which counts among its other members *Celastrus orbiculatus*, the rampant Oriental bittersweet vine which has overwhelmed native shrubs and trees in some areas, and *C. scandens*, the less aggressive American bittersweet. In each of these, the crimson arils revealed by the splitting of the yellow-orange capsules betray its close relationship with our species of *Euonymus*.

In 1999 Dick Smith cleared for publication some of the *Look Again!* articles which he wrote for earlier issues of Shortia. This is the fifth to be reprinted. The Club has identified *Euonymus obovatus* at Kanati Fork, Coleman Boundary and Graybeard Mt. to Glassy Minefalls.
Restoring Land and Water in South Africa

"Working for Water" was started in 1995 by the South African government. It hires unemployed people to clear thirsty alien trees from important watersheds around Cape Town. Alien trees not only displace native trees but suck up water needed by humans. A single eucalyptus tree consumes up to 100 gallons of water in a day, so removing the trees is like putting water back in the system. "Rivers that hadn't run in 30, 40 years began to run again", said Guy Preston, the founder for "Working for Water". The program now operates in every South African province, has an annual budget of $60 million, and has inspired a group of sister programs that may change the face of conservation across the continent. Their aim in not just to restore ecosystems but to put them to use for human benefit.

"Working for Wetlands" was spun off from "Working for Water" five years ago and is now employing teams throughout the country to restore marshes. Healthy marshlands serve to purify the water that runs through them. "The nice thing about wetlands is that you start helping the system and it will start helping itself", said Japie Buckle, technical adviser at a wetlands restoration project in Agulhas National Park. "Within two years you won't believe it is the same area".

Things are already coming full circle on the Agulhas Plains where several hundred acres of wetlands were restored last year. "The farmers are shaking their heads because the state paid them to drain these same fields 40 years ago", said Mr. Buckle. "Now the state is paying to put the water back."

"Working for Woodlands" is a pilot project to reforest subtropical thickets to capture carbon from the atmosphere and support biodiversity on the land.

"Working on Fire" has been dispatching teams since 2003 to prevent and control wildfires.

One goal of these projects is to provide people with skills to help them get jobs in the private sector. All of the programs require that workers be recruited from the "poorest of the poor", and in an effort to raise participation by single parents, six of every 10 must be women.

Financing such programs is a constant problem and it has been suggested that timber companies might pay for fire protection, hydroelectric companies for erosion control to keep silt from clogging their turbines, and municipalities for the restored groundwater that ends up in drinking glasses and irrigation ditches.

-Quotation and excerpts from The New York Times, July 26, 2005
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 $15. New members joining from the period July 1-December 31, pay $8. All memberships are renewable on January first of each year. Send dues to: Larry Avery, 4 Windrush Lane, Flat Rock, N.C. 28731