SHORTIA

NEWSLETTER OF THE

WESTERN CAROLINA BOTANICAL CLUB

Summer 2011

Shortia galacifolia

Oconee Bells
Growing up on a small beef farm in Northern Wisconsin taught me a great deal about taking care of the soil in order to succeed with plantings. Using natural methods and products was the fundamental plan in preparing and maintaining good crop output. The same principles hold true in any planting setting, no matter the size, scope, or location.

Fast forward to North Carolina I find myself tending a vegetable garden and a natural forest grove and my father's guidance is still the best. Our home site began as a barren, deadpan of "rotten granite" and rock, left after the bulldozers cleared the precious forest land and all it's soil. Initially, my plan was to use the rototiller to prepare the vegetable garden area, and double dig an area where my forest grove would develop. I sent in a soil sample to Raleigh, and in my mind I could hear laughter coming from disbelief that the area was so nutrient-poor. I had my work cut out for me.

I wanted to be environmentally responsible, and to use natural products; then I learned about mycorrhizal fungi. These soil fungi create a network within the soil beneficial to plants as they increase plants' ability to uptake water and nutrients. I decided to do what nature does, and try to create a natural habitat in our yard.

No rototilling, or double digging - this disturbs and destroys the natural soil web. No incorporating artificial additives or fertilizers which poison the natural organisms in the soil. Just mulch, stay off the soil to avoid compacting and provide lots of organic matter including composted manure, chopped leaf mulch and natural materials from my compost pile. By avoiding compacting the soil I help keep the soil particles loose so the spaces between them allow root growth and water & nutrient movement, as well as space for soil creatures. In addition, I avoid digging into the soil, as this can even "scarify" dormant weed seeds and allow them to take on moisture to sprout.

When I introduce a new plant, first I try to quarantine it to avoid bringing soil-born blights, diseases, weeds or other problems to my area. The plant is placed at the right height, with the addition of a small amount of mycorrhizal fungi (Espoma product available at garden centers), composted manure, water and a final topping of mulch.

These basic principles apply to any type of garden or landscape. If we want wonderful plants, we first need to feed the soil, and the soil in turn will feed the plants. It's fun to play in the dirt!
Member News

Welcome New Members
Carol Arnold, Arden
Jonathan Gibaud, Pisgah Forest
Elaine Gray, Green Cove Springs, Fla.
Brenda Hillyer, Hendersonville
Susan Koehler, Etowah
Ro Metcalf, Hendersonville
Peter & Hadermann Margolin, Lore, Pisgah Forest
Sylvia Nissley, Sarasota, Fla.
Mimi Sagar, Rosman

Field Trip Cancellations. On occasion field trips need to be cancelled or changed either for weather conditions or other reasons such as road closings. Such changes are sent out by e-mail to all members at the latest by 7 a.m. the day of the field trip. If you do not have e-mail access, we will try to reach local members by telephone by 7 a.m. If in doubt, contact a leader or co-leader whose telephone number is listed on the schedule. When a field trip is cancelled, no member will be at the contact point.

---

Any change of address, e-mail or telephone number, please inform our Treasurer, 828-884-3947 <adgraham@citcom.>

---

IDENTIFYING FERNS, Jenny Lellinger
Sunday, July 24, 2011 2:00 pm – 4:00 pm
The Botanical Gardens at Asheville, Butler Room & Gardens

Jenny Lellinger, botanist and past president of the Western Carolina Botanical Club, armed with field guides and hand lenses, will introduce participants to the secrets of identifying native ferns as we collectively meander through the BGA’s gardens. If thunderstorms chase us indoors, she will use live fern samples and a Power Point presentation. Students must pre-register. Contact Office Administrator at BGA for additional information and/or to register (828) 252-5190.
Before beginning the new walk season I think it worth noting that we had an outstanding indoor season. We had a number of new speakers in addition to our home grown members who we have appreciated over the years. Non-speaking members are to be congratulated as attendance was consistently high and enthusiastic.

The walk season started on a high note as we had a successful Hardy Souls Hike to Barnett Branch and the back half of the Pink Beds Trail. As you might expect blooming plants were at a premium but we saw a number of mosses including Wheat Grain Moss (Diphyiscium sp). We also found a mushroom that Karen Koelling had spent the winter trying to identify, Stalked Puffball.

Station Cove started the official wildflower walk season. It was chilly but sunny. The Three-parted Violet (Viola tripartita) was an interesting find. Wood Anemone (Anemone quinquefolia) were abundant.

We made our first trip to Paris Mountain State Park and had a special treat when Rudy Mancke, a South Carolina TV personality, led the walk. Rudy had a wealth of nature based information about the area. Blooming plants were scarce but a nice stand of Resurrection Fern (Pleopeltis polypodioides) provided a botanical highlight.

We had a large turnout for Pearson Falls as usual and were treated to an unusually warm day for a change. All the noteworthy plants were found including the trilliums making their first appearance - Toadshade (Trillium cuneatum), Large-flowered Trillium (Trillium grandiflorum) and Wake Robin (Trillium erectum).

The club had an overnight trip to the Fontana Dam area. The group stayed at Fontana Village and visited Joyce Kilmer Memorial Forest among other spots. The members reported an excellent time was had by all.

We walked Estate Trail in April as part of a multi-visit plan for this year. The spring bloomers were outstanding. We saw a wide variety of trilliums. The Pennywort (Obolaria virginica) in bloom was a treat. The Blue Ridge Bittercress (Cardamine flagellifera var. flagellifera) in bloom was the first time it had been recorded on a club walk.

The turnout for Twin Bridges was smaller than normal but we were treated to the usual spectacular display of blooming plants. The May Apples (Podophyllum peltatum) were in bloom a little early. The Wild Ginger (Asarum canadense) at the start of the walk had a number of impressive blooms. The Canada Violets (Viola canadensis) were blooming everywhere. Mark Rose, who gave a talk during the winter season on trilliums, was scheduled to attend the walk. Unfortunately Mark twisted an ankle and had to cancel - maybe next year.

The outing at Glassy Mountain Preserve did not disappoint. The Elf Orpine (Diamorpha smallii) population which appeared decimated last year had made a dramatic comeback. The Blue Star (Amsonia tabernaemontana) dressed up our lunch spot. We found two ferns, Hairy Lip Fern (Cheilanthes lanosa) and Woolly Lip Fern (Cheilanthes tomentosa). We only see them uncultivated at Glassy Mountain.
Western Carolina Botanical Club Members

Bonnie Allen
Jan Allen
Ken & Jane Anderson
Bonnie Arbuckle
Rebecca Armstrong
Carol Arnold
Daisy Arrington
Larry Avery
Christine Barnes
Glenda Bentley
Patsy Beyer
Paul & Beth Bockoven
Anne Booth
Ken & Chris Borgfeldt
Jackie Burke
Joy Charlebois
Ranchel M. Conway
Elrose Couric & Sue Hollinger
Pat & Charlie Davis
James P. (Jim) Drake
Betty Dziedzic
Edmund & Carver Farrar
Elizabeth Feil
H.D. & Jan Fishback
Don Fisher
Carol & Gregory Fouts
Jonathan Gibaud
Ruth Anne & John Graham
James W. Goldsmith
John & Sheila Goldwaith
Alan Graham
Elaine Gray
Gussie Gray
Diane Hankins
Aline Hansens
Mary Beth Hayes
Mary Kathryn Hardman
Karen Herrell
Don & Dana Herrman
Brenda Hillyer
Fran Hudelson
Jack & Dorothy Hudson
Susan Hursey
Nancy & Tom Iha
Howard & Linda Jackson
Mary Clare Jenks
Betty Jones
Frances Jones
Jean Kirkland
Henry & Barbara Koch
Susan Koehler
Karen Koelling
Marilyn Kolton
& Louis Dwarshuis
Sharon Kotch
Charlotte Lackey
Larason & Juanita Lambert
Jenny & Dave Lelling
Joan Lemire
Jean Lenhart
Louis Lieb
Peter & Hadermann Margolin
Nancy Martin
Cynthia McCurdy
Lois McDaniel
Ro Metcalf
Don & Linda Miller
Earl & Bettye Miller
Elaine Montgomery
Barbara Mueller
Sylvia Nissley
Maryke Nol
Millie Pearson
Bud & Laverne Pearson
J. Dan Pittillo
Peggy Polchow
Edwin Poole
Saretta Prescott
Erna Prickett
Lucy Prim
Cindi Probst
John Reed
Paula Robbins
Mimi Sagar
Christene & Warinner
Schmidt
Nina Shippen
John & Muriel Siddall
Helen Smith
Jeanne Smith
Kim Spencer
Bil Stahl
Joe Standaert
Aleen Steinberg
Gloria Stenger
Susan Sunflower
Robbie ter Kuile
Carrol Toole
Teena Tuenge
Anne Ulinski
Donna Van Kampen
Harriet Walls
April Wasson
Jane White
Gail Wilcox
Jean Woods
FLOWERING PLANT FAMILIES – Hypericaceae – St. John’s-wort Family

The St. John’s-wort family includes the single genus, *Hypericum*. Its flowers are radially symmetric, 4 or 5-petaled, yellow or pink, with a superior ovary, and usually perfect, meaning that they bear both pistils (female) and stamens (male). This dicot group includes herbs and shrubs found in great diversity in the Southern Appalachian Mountains. This mostly temperate genus is comprised worldwide of 370 to 420 species, of which approximately 30 species are represented in the Carolinas, and nearly 20 of these in the mountains.

The genus *Hypericum* was first described by Linnaeus in his “Species Plantarum,” and the family *Hypericaceae* was published by the French botanist Antoine Laurent de Jussieu in 1789. However, recent authorities eliminated *Hypericaceae* as a family and transferred its species to the Clusiaceae. The latest molecular studies recognize that the Hypericaceae’s standing as a separate family is warranted.

The Latin name “*Hypericum*” is derived from the Greek name for this group of plants “*hyperikón*”, derived from the roots *hyper* (over) and *eikon* (icon, image). Healing and mystical powers were attributed to plants of this genus and, according to folklore, on the eve of St. John’s Day, sprigs of the herb were hung over doorways to ward off disease and evil spirits.

*Hypericum graveolens*, a rare Southern Appalachian endemic reported from only nine counties in North Carolina and three in Tennessee, occurs in grassy balds, grassy openings, and seepage slopes at 4,000-6,000+ ft. elevation. *Hypericum mitchellianum* (Blue Ridge St, John’s-wort) is also a high elevation endemic similar in appearance and rarity.

<table>
<thead>
<tr>
<th><em>Hypericum graveolens</em> Mountain St. John’s-wort</th>
<th>This 1-3 ft. tall, erect, perennial is usually unbranched and topped with a showy, few-flowered cluster.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typically blooms July along the Pisgah Ridge and Silvermine areas.</td>
<td>The leaves are opposite, ovoid to elliptic, and black-spotted, as are those of many of its relatives.</td>
</tr>
</tbody>
</table>

Typically, species in this family are highly tolerant of challenging growing conditions, such as drought, exposure to unrelenting sun, rocky areas, and very poor soils.

They are typically not subject to browsing by deer or rabbits. As a matter of fact, cattle are known to die from over grazing on St. John’s-wort. Its active ingredient, hypericin, causes photodermatitis in some dogs, horses, cats, and people when any part of the plant is ingested.
**Hypericum gentianoides**  
Orangegrass

Britton, N.L., and A. Brown.  

We typically see it when we visit Sky Valley and on the trail to Cedar Rock at Dupont State Forest. Its slender shoots are just beginning to pop up now. June to September is the best time to catch it in bloom.

Five-petaled, inconspicuous (1/8" wide) flowers are borne sessile at the nodes. This much-branched plant bears appressed, scale-like leaves.

This annual easily reproduces by seed. Perhaps it is most noticeable when speckled with bright orange fruits, hence its common name Orange-grass. Its specific Latin name, *gentianoides*, means gentian-like.

---

**Hypericum crux-andreae**  
St. Peter's-wort

Britton, N.L., and A. Brown.  

We have often come across it in bloom when we visit Cedar Rock in Dupont State Forest in July or August.

This perennial, branching, woody shrub typically grows in the dry forests and pine flatlands of the Coastal Plain. However, relatively distant populations grow on the similarly dry and sandy granitic domes of the Southern Appalachian Mts.

Unlike most Hypericums, it bears 4 sepal (2 are broad, the 2 opposing ones are narrow) and 4 broad petals. Its clasping leaves are elliptic-oblong, and rounded at the tip.

---

On a personal note, our property is south-facing, underlain by granitic-gneiss topped with acidic, very shallow, and poor soils. Natively growing we found *H. gentianoides* (Orangegrass), *H. punctatum* (Spotted St. John's-wort), *H. mutilum* (Dwarf St. John's-wort), and *H. hypericoides* (St. Andrew's Cross). For landscaping we added *H. prolificum* (Shrubby St. John's-wort), and *H. trondosum* (Cedarglade St. John's-wort). All are doing great!

Introduced from Europe in the 1700s, *Hypericum perforatum*, thus named because of its translucent-dotted leaves, has been attributed many healing properties over the course of time. Currently used as an herbal anti-depressant, it is advisable to research possible drug interactions if you are planning to try it. Over time this non-native plant has been designated a noxious weed in seven U.S. states. Sheep-grazing and other bio-control agents, such as insect releases have been somewhat successful. Fortunately, it is not invasive in our area.

*Jenny Lelligner*
Invasive Alert!

"A keen sense of disappointment was felt by everyone closely connected to the Gardens when what was first thought to be an early and particularly prolific appearance of Marsh-marigold (Caltha palustris) actually turned out to be an invasion of Lesser Celandine (Ficaria verna, formerly Ranunculus ficaria) also known as Fig Buttercup".

This announcement was made by Marianne Coté, President of the Botanical Gardens at Asheville in their Spring 2011 newsletter, New Leaf.

Marsh-marigold is a member of the buttercup family and blooms from late March to late May. It brightens the early spring landscape with its bright yellow blossoms surrounded by deep green leaves. It provides pollen and nectar for bees and butterflies and seed for small mammals and birds. It is a non invasive native that was added to the Protected Plant Species List of N.C. in December 2010.

Unfortunately an insidious invasive look-alike recently made its way to North Carolina and is being sold by some commercial nurseries as a substitute for the harder to find and grow Marsh-marigold. Ficaria verna is most commonly known as Lesser Celandine, but that name adds to the confusion. It is neither a marigold nor a Celandine. It is suggested that it be called by its more justifiable name of Fig Buttercup.

Fig Buttercup is a vigorously growing herbaceous plant that completes its life cycle during the winter and spring and competes with many native plant species for light, nutrients and space. It emerges before most native species which gives it a great competitive advantage. It threatens not only the Marsh-marigold but Virginia bluebells, Trout Lily, Trilliums, Bloodroot and many, many others.

Marianne Coté adds there is little window of opportunity for controlling this plant and control methods are limited. "Currently there are no biological control agents and chemical pesticides present a danger to native wildflowers and amphibians many of which are emerging at the same time. Hand pulling and digging with a small trowel in early spring are likely the safest method, but these are labor intensive and work best on small infestations. All bulbets and tubers must be removed and plant materials bagged up and disposed of in a landfill or incinerator."

"Fig buttercup, aka Lesser Celandine, is just beginning to get a foothold in this region. It will require vigilance and hard work to prevent it from continuing to spread. For the good of our native ephemerals, don't buy it from commercial nurseries or allow it to become established on your property!" -Marianne Coté.

This New Leaf article was printed in full in Upstate Happenings, the newsletter of the Upstate Chapter of the SC Native Plant Society, June 2011.
"From the author of the acclaimed The Brother Gardeners this is a fascinating look at the founding fathers from the unique and intimate perspective of their lives as gardeners, plantmen, and farmers. For the founding fathers, gardening, agriculture, and botany were elemental passions, as deeply engrained in their characters as their belief in liberty for the nation they were creating. Andrea Wulf reveals for the first time this aspect of the revolutionary generation. She describes how, even as British ships gathered off Staten Island, George Washington wrote his estate manager about the garden at Mount Vernon; how a tour of English gardens renewed Thomas Jefferson’s and John Adams’s faith in their fledgling nation; how a trip to the great botanist John Bartram’s garden helped delegates of the Constitutional Congress break their deadlock; and why James Madison is the forgotten father of American environmentalism. These and other stories reveal a guiding but previously overlooked ideology of the American Revolution. Founding Gardeners adds depth and nuance to our understanding of the American experiment and provides us with a portrait of the founding fathers as they’ve never before been seen." *

Founding Gardeners reports on the “cradle” of the environmental movement beginning with the remarks of James Madison. In a widely circulated speech in 1818 he said the protection of the environment was essential for the survival of the United States. He condemned the Virginians for their ruthless exploitation of the soil and forests, fearing that nature’s equilibrium would be unbalanced. Humankind, he said, could not expect nature to be made subservient to the use of man. Man, he believed, has to find a place within the “symmetry of nature” without destroying it. The book considers James Madison our first environmentalist.

This is indeed a scholarly book. The contents include nine chapters and an Appendix with maps of George Washington’s Mount Vernon, Thomas Jefferson’s Monticello, John Adams’s Peacefield and Madison’s Montpelier, all large plantations in Virginia except Peacefield, a much smaller farm near Quincy, Mass. There are also Foot Notes, a selected bibliography, Illustrated Credits, Acknowledgments and an Index - a total of 349 pages of text with some photographs.

The jacket images include; Steuarta, Magnolia virginiana, Rhododendron maximum, and Kalmia augustifolia, all by Mark Catesby 1731-1743.

For botanists the author explains, “In order to avoid the unwieldy use in the text of both the common and Latin names of the plants, I have used either one depending on the name by which the plant is more likely to be known. However, every plant is listed in the index under its common name (with the Latin name in parenthesis) and under the Latin name (with its common name in parenthesis).”

-Anne Ullinski

*This summary is provided by the book’s publisher.
SHORTIA

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

FIRST CLASS

Hendersonville, N.C. 28739

SHORTIA

A quarterly publication of the Western Carolina Botanical Club

Vol. XXXIII. No. 2 Summer 2011

Editor: Anne Ulinski
Editorial Assistants: Jean Lenhart, Kim Spencer, Elaine Montgomery
Member News: Ruth Anne Gibson

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: Alan Graham, 544 Tip Top Road, Brevard, N.C. 29812