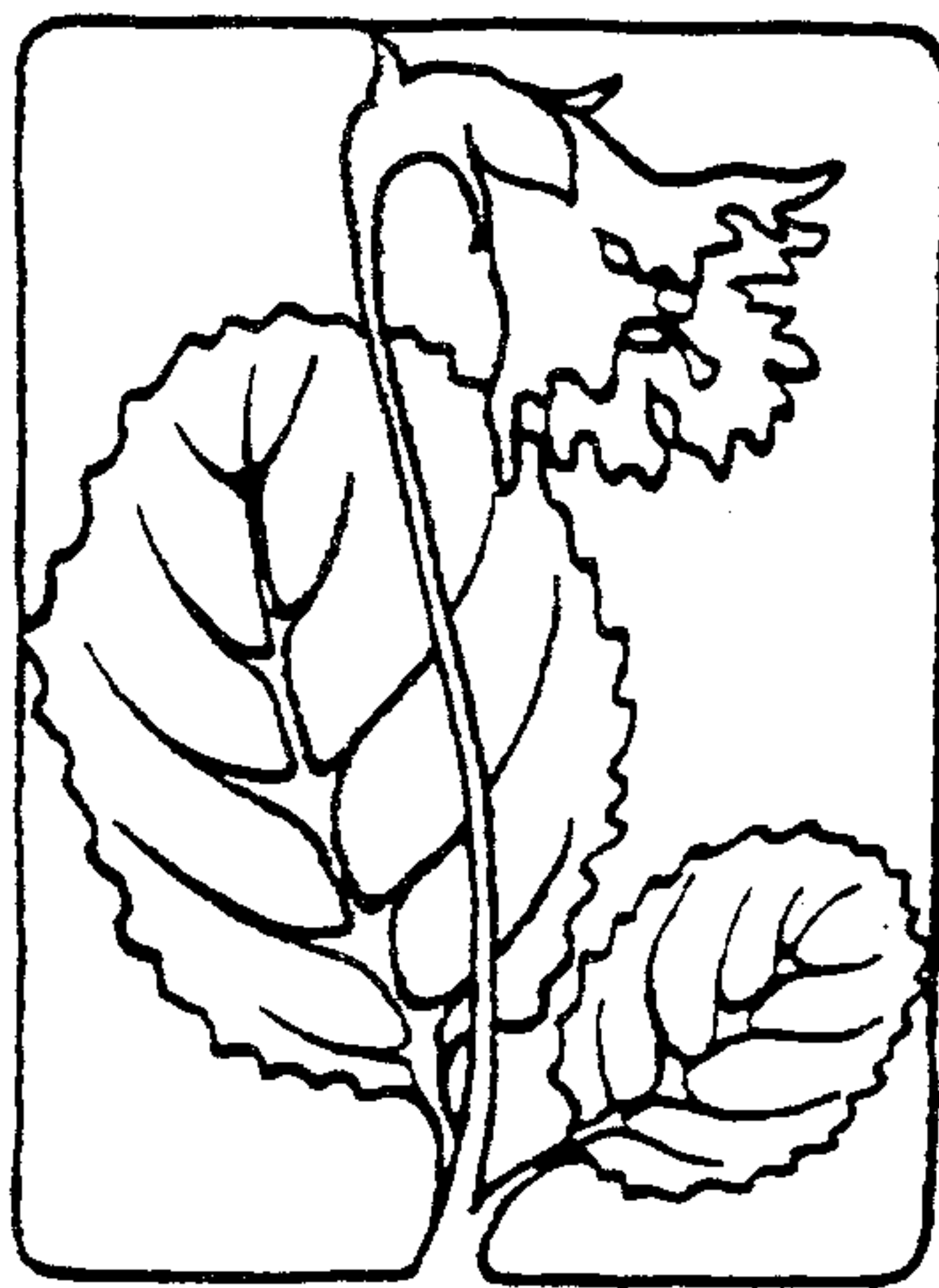


SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB
WINTER 1999



Shortia galacifolia

Oconee Bells

WESTERN CAROLINA BOTANICAL CLUB - 1999

President: Anne Ulinski
Vice President: Bonnie Arbuckle
Secretary: Peggy Ellis
Treasurer: Rachel Conway

Recorder: Betty Jones
Historian: Anne Matthes

From the President.....Anne Ulinski

The underlying idea of Chinese medicine is the creative cycle as seen in the seasons -- each season giving way in turn to the next. As with our understanding of the seasonal cycle, Chinese medicine recognizes spring, summer, fall and winter. Late summer and early fall they name as a separate season called "harvest time".

If you were out with the Botanical Club this fall, especially the field trips to Daniel Creek and to Coon Branch, you had an opportunity to enjoy the fall season to the fullest. Different books were needed and Weeds in Winter and Winter Botany came out of car trunks and backpacks. We were challenged to identify Joe-pye-weed, Green-headed Coneflower, and everyone's old favorite, Heal-all, without their blooms. Gentians challenged us by holding their petals close. Grape ferns appeared with their golden bead-like spores.

Some of us wanted to walk slowly -- to enjoy the brilliant colors around us and the sense of quietness broken only by falling leaves and the flowing water of a nearby stream. This quietness the Chinese would interpret as the energy of spring and summer beginning to wane as the earth passes through fall into the deep quiet of winter.

Following the idea of Chinese medicine we might want to try adapting our personal energy to the seasonal cycle as we go through the botanical year. Winter is a time for rest, a time to prepare for the surge of energy to come with spring and all those trilliums and violets and the new green on shrubs and trees. We need to sustain our energy through summer and late summer as we try to sort through the composites, mints and early fruiting plants. And then we are back to fall. The days are shorter. Seeds have buried themselves in the earth and become dormant. It is a time to slow down and let go. It is a time to reflect and be thankful for another year of enjoying our natural world as we watched the earth pass through the universal seasonal cycle.

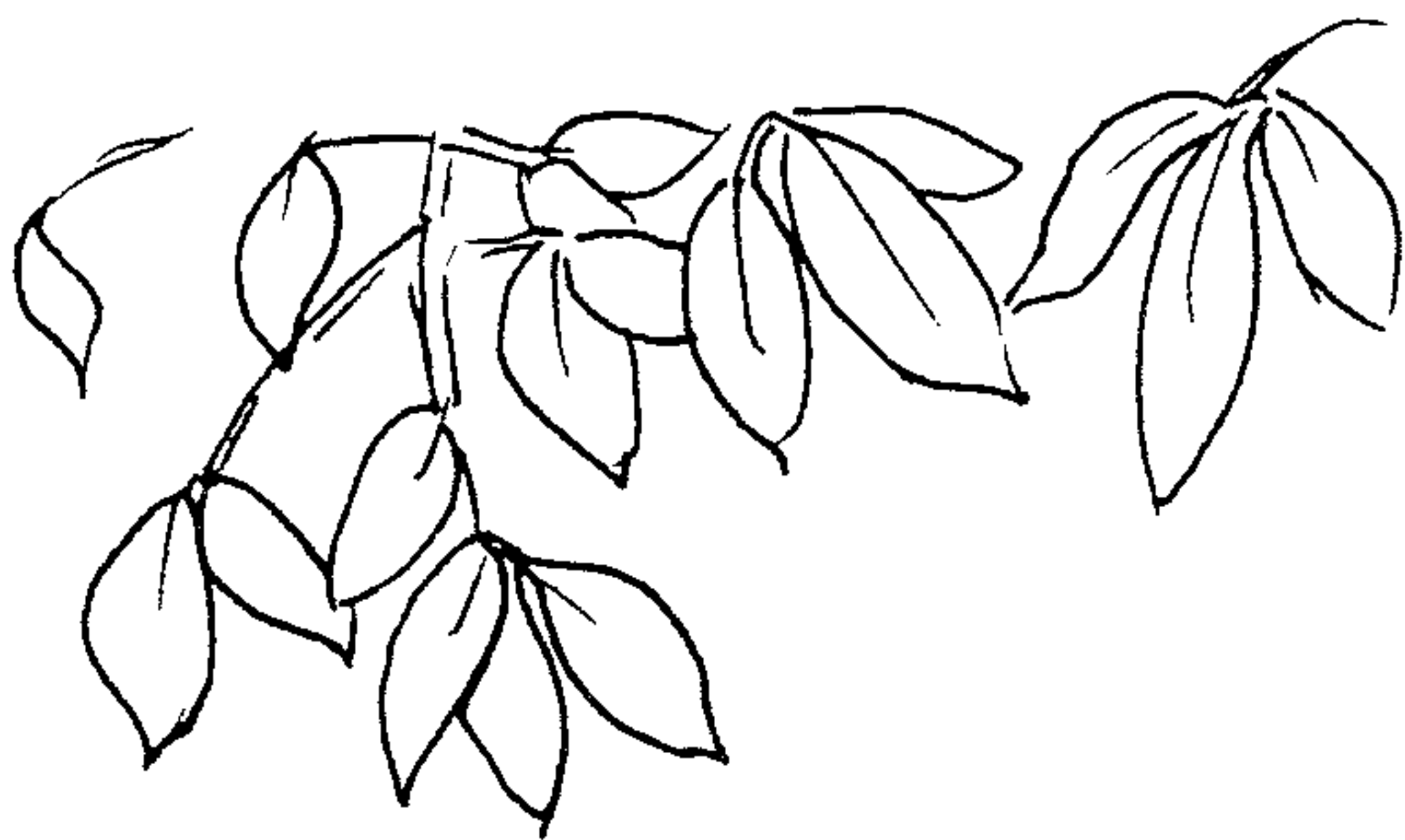


Cover: The flower on the cover is *Shortia galacifolia*, Oconee Bells. Our newsletter is named for this southern endemic which is now rare in the wild.

Membership Dues are payable January 1, 2000. We don't have the resources to make a renewal mailing so please send your dues to Rachel Conway (address is on back cover) or bring your dues to one of our indoor meetings. Dues are \$12 per individual/family.

Annual Meeting will be on Friday, January 14, 2000 at St. John's in the Wilderness Parish House, Flat Rock. The meeting begins at 11 a.m. and will include reports of the past year, election of officers, and a preview of the year to come. A special award will be made to one of our members, an award not made before in the history of the Club.

For one reason or another some of you have not been able to come on the field trips this season. Please come to the Annual Meeting so we have an opportunity to see you.



Reminder: This is a pot-luck affair and the food is always wonderful. Stay after lunch to see some slides of candid shots taken on the field trips this year.

Learn and Share

The program committee has scheduled Learn and Share as an indoor meeting on Friday, March 17, 2000. Learn and Share was an idea of Barbara Hallowell, now one of our out-of-town members. The sessions were previously held in private homes but we will experiment with holding the session at the First Citizens Bank Community Room so there will be room for all.

We are inviting Club members to research a subject of interest to them and prepare a short (no more than 10 minute) presentation. Props are welcome such as charts, pictures, specimens. If you have learned of a new book or read an interesting article, have heard of a new discovery in the plant or animal world or want to share with the group your favorite plant or an unusual plant you have seen in your travels, think about sharing those interests with the Club. As long as the subject is in the realm of our natural world, anything and everything goes.

We need 5-6 members to volunteer as presenters. The program is open to everyone. Those not presenting a subject we envision as a supporting audience free to ask questions. Volunteer presenters: This will be an informal session. We plan to arrange the chairs so everyone will feel comfortable.

Helen Smith has agreed to coordinate the volunteer presenters. We are giving everyone plenty of time to think about a subject and come forward to make this program a success. Just telephone Helen at 883-4946 to sign up.

Rhododendron leaf sketch by member Pat Arnett

RECORDER RAMBLINGSBetty Jones

On the Buck Springs Nature Trail, the group reviewed the numbered stops that Elton Hansens and Dick Smith designated several years ago. Things have changed in the intervening years and it appears that an update is in order. Rosebay (*Rhododendron maximum*) and Starry Campion (*Silene stellata*) made showy displays on this walk.

Fields of Purple Coneflower (*Echinacea purpurea*), viewed from the old farm house, were a pleasing sight indeed at the GAIA Herb Farm. This certified organic farm grows 45 different plants used for extracts and ointments. We were favorably impressed by the bright, clean, uncluttered processing plant.

Although blackberry brambles made part of the trail at Black Camp Gap impassable, 15 hikers identified 61 species, 49 of which were in bloom.

Sky Valley Road offered up a variety of plants not often encountered on our walks. But the hot dry weather had taken its toll on many plants and a veneer of dust covered everything. Plants of special interest were Nuttall's Lobelia, Grass-leaved Golden Aster and Pale Corydalis.

At Holmes State Forest the group was instructed in the identification of insects and ferns by Elton Hansens and Bonnie Arbuckle, respectively. After our lessons, we split into "fern" and "insect" groups, walked the trails and applied what we had learned.

The blueberry picking was a bit disappointing for the 18 participants on the Tennent Mountain walk, but the botanizing was good. Plants of note were the abundant White Wood Asters (*Aster divaricatus*), Narrow-leaved Houstonia (*Houstonia tenuifolia*) and Round-leaved Sundew (*Drosera rotundifolia*).

On a comfortably cool day, participants in the Lake Issaqueena walk compared two species of *Elephantopus* and three species of *Verbesina* and identified a variety of vines. A special treat was the floating fern called Water-clover (in the *Marsilea* family).

Twenty-five participants came out to enjoy the final Parkway field trip of the season. Fall asters, gentians, goldenrods, turtleheads and Grass-of-Parnassus were among the plants identified.

The Jackson Park wetlands area was a blaze of color this year. Cited as abundant were "Ditch Daisy" (*Bidens polylepis*), Virgin's Bower, Joe-Pye-Weed, Tearthumb, Climbing False Buckwheat and New York Ironweed.

The late date (Oct 1) plus extensive mowing and installation of a fence reduced botanizing opportunities along Butter Gap Trail. Witch Hazel was reported for the first time this season.

THOSE LATIN NAMES Betty Jones

In the summer issue of *Shortia* we looked at the Latin forms of numbers and the names of some plant parts. Little did I know when I promised shapes and sizes for this issue that I had selected such a large topic. Using the *Dictionary of Word Roots and Combining Forms*, I found at least 40 different Latin forms that are used in plant names to describe size or shape. About one-third of those have Greek origins.

Let's look at a few **size** forms:

Form	Lang.	Meaning	Examples
<i>gigant</i>	G	gigantic	<i>Helianthus giganteus</i> - Tall Sunflower
<i>grandi</i>	L	large	<i>Solidago gigantea</i> - Late Goldenrod; why not Tall Gold...?
<i>macro</i>	G	large	<i>Aristolochia macrophylla</i> - Dutchman's Pipe
<i>maxim</i>	L	largest	<i>Rhododendron maximum</i> - Great Laurel
<i>long</i>	L	long	<i>Stellaria longifolia</i> - Long-leaved Stitchwort
<i>micro</i>	G	small	<i>Helianthus microcephalus</i> - Small Wood Sunflower
<i>parvi</i>	L	small	<i>Agrimonia parviflora</i> - Small-flowered Agrimony
<i>alti</i>	L	tall	<i>Prenanthes altissima</i> - Tall White Lettuce

Other size forms are *sub* (less than or somewhat), *brachy* and *brevi* (short) and *pusill* (small). Often the Latin name tells us more about the plant than the common name, as in Late Goldenrod above.

Now to some **shape** forms:

<i>obtus</i>	L	blunt	<i>Gnaphalium obtusifolium</i> - Rabbit Tobacco
<i>clavat</i>	L	clubbed	<i>Thalictrum clavatum</i> - Lady Rue
<i>crispi</i>	L	curly	<i>Rumex crispus</i> - Curly Dock
<i>cornut</i>	L	horned	<i>Corylus cornuta</i> - Beaked Hazelnut
<i>angust</i>	L	narrow	<i>Cardamine angustata</i> - Slender Toothwort
<i>acumi- nat</i>	L	pointed	<i>Aster acuminatus</i> - Whorled Wood Aster <i>Clethra acuminata</i> - Mountain Sweet Pepperbush
<i>gyro</i>	G	round	<i>Agrimonia gyrosepala</i> - Tall Agrimony
<i>rotundi</i>	L	round	<i>Drosera rotundifolia</i> - Round-leaved Sundew
<i>acuti</i>	L	sharp	<i>Hepatica acutiloba</i> - Sharp-lobed Hepatica
<i>dicho</i>	G	split	<i>Silene dichotoma</i> Forked Catchfly
<i>lati</i>	L	wide	<i>Kalmia latifolia</i> - Mountain Laurel
<i>tenui</i>	L	slender	<i>Stachys tenuifolia</i> - (Hedge Nettle)

Other shape forms are *cylind* (cylindrical), *ovaf* (egg-shaped), *platy* (flat or wide), *acri* and *oxy* (sharp), *obliqu* (slanting), *lepto* (slender), *pachy* (thick), *strobo* (twisted) and *undulat* (wavy). All of these forms can be found on our plant lists.

Next time: colors. This should be fun.

The Richard M. Smith Memorial.....Lowell Orbison

Richard M. Smith grew up in Millersburg, Pennsylvania on the east bank of the Susquehanna River in a home where art, gardening and nature were important parts of daily life. Throughout his life Dick carried this love of art and nature with him. His drawings and later his photographs were his principal means of artistic expression. During all his years with Texaco in New York City, he and his wife Jeanne spent each week-end traveling by train to sites for the study of nature, especially wild flowers.

His field notes were always precise and complete and formed the basis for his two books Wild Plants of America and Wildflowers of the Southern Mountains. In the first, his accurate and esthetically pleasing drawings and in the second his superb photographs speak to his artistic talent. The dedication of each of his two books provides us with an insight into Dick the man--the first "To Jeanne who shared it all" and the second "In memory of my mother who would have loved this book and my father who could have done it better". Fortunately for all of us Wildflowers of the Southern Mountains was published just a few months before his death.

When he retired and he and Jeanne moved to Connestee Falls his hobby became his full time occupation. The results of his work, his experience, his knowledge and expertise, he shared generously with his new friends in the area, especially those in the Western Carolina Botanical Club and the Botanical Gardens of Asheville.

In memory of Dick, both his accomplishments and friendships, many have made gifts to the Botanical Gardens at Asheville. These gifts make it clear that Dick's extensive and precise knowledge of wildflowers as well as his enthusiasm and love of plants had been shared with many.

It is to the memory of this man that the Botanical Gardens at Asheville will dedicate a new Bog Garden with its community of plants.

The resources made available in Dick's memory have coincided with the Botanical Gardens' plans to develop typical plant communities that characterize the Southern Appalachian Mountains. As one of the first of these, the aquatic and bog garden will illustrate the diversity and beauty of one of these communities. It is anticipated that many plants will flourish here. Some of these, White and Yellow Water Lilies, Water Shield and Cattails will grow directly in the water. Others such as Arrow Arum, Pickerel Weed, Golden Club, Swamp Pink, Pitcher Plants and Skunk Cabbage will thrive at the water's edge. And in the drier areas Cardinal Flowers, Honey Cups, Leather Leaf, Leatherwood and Titi will grow. Even trees typical of wet areas such as Bald and Pond Cypress, Water Elm and perhaps even Ogeeche Plum will find a place here.

The Richard M. Smith memorial (continued)

It is hoped that this variety of plants, all lovers of water, will compose a community that will epitomize Dick's dedication to our plant world.



Orontium aquaticum, Golden Club, one of the plants which will find a home in the new Bog Garden
 (Line drawing by Richard M. Smith from "Wild Plants in America")



"Identifying a specimen is often a long, tedious and frustrating task. A curator must have a good knowledge of the type of specimen at hand, a library of appropriate reference texts, scientific articles if possible, and a comprehensive collection for comparison." - - A legend copied from an exhibit in the City Museum, St. John's, Newfoundland.



The real voyage of discovery rests not in seeking new landscapes, but in having new eyes

-Marcel Proust

On April 23, 1999, the front page of the Hendersonville Times News featured an article about the upcoming pollen season. Illustrated and named in a box on the front page were five plants:

Bermuda grass blooms from June through September and is widely distributed in the southern United States as a lawn and golf course greens grass. It is a noxious weed. If you have it you do not want it.

English plantain (May through September) is an introduced plant used mainly for lawns.

Giant ragweed (August through September) when well developed can be over six feet tall. It and its brother, small ragweed, are the two worst plants for those who suffer from pollen allergies.

Orchard grass (May through July) is a crop plant and much of it is produced in Virginia and used in pastures and orchards.

Timothy (*Phleum pratense*) is the basis of this article. It is listed as one of the five worst plants for pollen allergy sufferers, yet I wonder how many have seen this plant. Imported from Europe, it was planted throughout the United States and Canada. But have you seen a timothy plant? I have seen some near the restrooms along the path to Clingman's Dome but few other places.



Timothy

What happened to timothy which blooms from May through July and is one of the worst pollen producers? It slowly stopped being planted by farmers before World War II and tapered out of favor in the 1950's. It is a tall annual that has no weedy characteristics so it does not spread from the fields. It fell out of favor as a crop plant because horses fell out of favor with farmers. With no horses, there is no need for timothy hay. Timothy seeds can still be purchased from places like Southern States (on US25 in Fletcher) and occasionally may be planted. Your best chance to see timothy is along roadsides (or paths) where work has been done and the margins reseeded.

A timothy "seed", really a fruit called a caryopsis, is roundish and harvested naked. That is the "seed" is not covered by a lemna and palea and/or glumes like the majority of grass "seeds". The "flowering head" resembles a miniature cattail head, and the plant resembles a miniature corn plant.

And please remember that insect-pollinated flowers do not cause allergies. Only wind pollinated plants like the above and most apetalous trees, but not pine trees with their heavy, large pollen.

SPECIES SPOTLIGHT: Evergreen Ginger..... ...Paul Myers

Most people are familiar with the well know Wild Ginger (*Asarum canadense*) which occurs in rich cove hardwood forests and on rocky slopes. The large, soft heart-shaped leaves of this species are deciduous and arise from an underground rhizome in the early spring, remain for the summer, then wither in the fall. In the Southern Appalachians, there are several other Wild Ginger species which have dark, thick, evergreen leaves that remain above ground through the winter. These plants, called Evergreen Wood Gingers, are all in the genus *Hexastylis*, which is closely related to the genus *Asarum* of the deciduous Wild Ginger.

The flowers of both the deciduous and evergreen Wild Gingers usually lack petals, but display three fairly large maroon or puce sepals. (Sepals in most flowers in other families are typically green and occur as bract-like structures whorled just beneath the petals.) These sepals may also be mottled, or variegated with streaks. In both the deciduous Wild Ginger and the species of Evergreen Wood Ginger, these flowers can often be found resting on the ground at, or just beneath, the leaf litter. This is a good strategy since most of the Wild Gingers are pollinated by ants. In spring and early summer, it's always a thrill for me to pull away the leaf litter from the leaf base to find these hidden flowers.

Three of the species of Evergreen Wild Gingers occurring in our region are federally listed as being rare by the U.S. Fish and Wildlife Service. *Hexastylis contracta*, or Mountain Heartleaf, is endemic to the Cumberland Plateau in central Tennessee but some disjunct populations occur in the Blue Ridge Mountains of western North Carolina. This species prefers highly acidic soils and is often found growing under and along with Rhododendron (*R. maximum*) and Mountain Laurel.

Two others, Dwarf Flowered Heartleaf (*H. naniflora*)(US Threatened) and French Broad Heartleaf (*H. rhombiformis*)(U.S. Species of Concern) also occur in the upper Piedmont and Blue Ridge respectively. Both of these species also prefer acidic soils and are found associated with Mountain Laurel. The French Broad Heartleaf is endemic to the southern Blue Ridge Mountains and is found in only a few counties (Henderson, Polk, Buncombe and Transylvania) near the French Broad watershed in N.C. Since their habitat is common in our area, there is a real potential for discovery of additional populations of these rare species.

Note: The French Broad Heartleaf (*H. rhombiformis*) was first identified as a separate species by botanist, Chick Gaddy, a resident of nearby Walhalla, S.C. whom some of you may know.

This article was excerpted with permission from "Wild Mountain Times" published bimonthly by the Southern Appalachian Biodiversity Project, headquartered in Asheville. Paul Myers, the author of this article, is a botanist living in Hendersonville. He will present a program to the Botanical Club on Friday, January 7, 2000.

SHORTIA

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Please submit contributions for the next issue by January 31, 2000 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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FIRST CLASS
