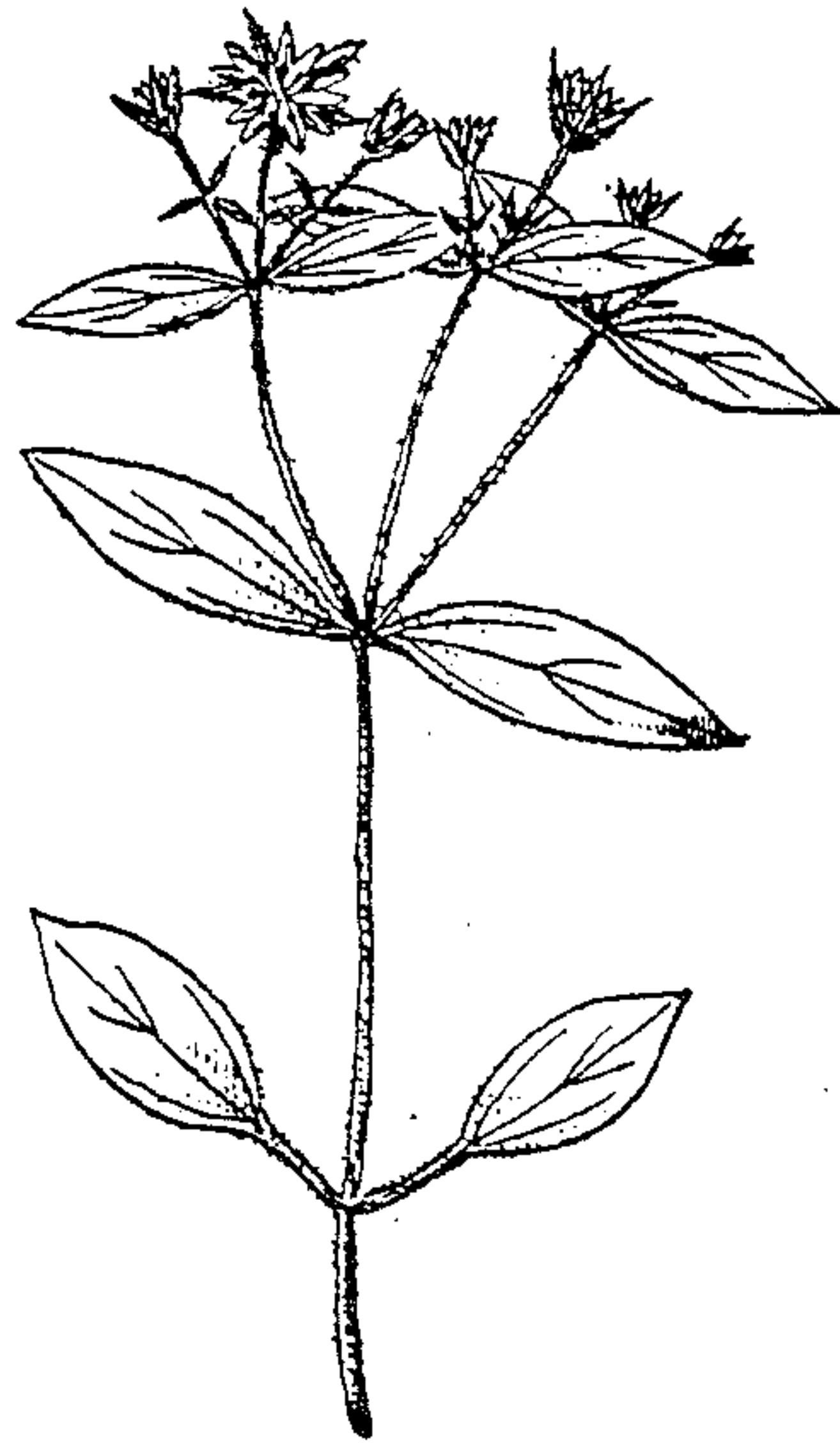


SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

Autumn 1999



Stellaria corei

Tennessee Chickweed

WESTERN CAROLINA BOTANICAL CLUB - 1999

President:	Anne Ulinski	Treasurer:	Rachel Conway
Vice President:	Bonnie Arbuckle	Recorder:	Betty Jones
Secretary:	Peggy Ellis	Historian:	Anne Matthes

From the President.....Anne Ulinski

One of the goals of the Western Carolina Botanical Club is "the collection and compilation of information and data on the plants of Western Carolina and "the education of interested persons in the enjoyment and appreciation of wildflowers and other plants".

This spring the Club received a request from Cindy Carpenter, U.S. Forest Service Interpretive Specialist, that we undertake a project at the Pisgah Forest Cradle of Forestry. With the support of the Executive Committee I submitted a proposal to the U.S. Forest Service for the Club to undertake what the Forest Service calls a "sponsored voluntary services" project. The project consists of an inventory of the plants along the Forest Legacy Trail and the Biltmore Campus Trail. After collecting the data we will work with Cindy to design wildflower brochures for the trails.

Bonnie Arbuckle and I are the co-chairs for the project. Other Club members volunteering are: Peggy Ellis, Elisabeth Feil, Betty Jones, Elaine Montgomery, Erika Parmi and Helen Smith. The volunteers are divided into two teams so that each team goes to the trails one day a month. We could use some alternates -- those interested in filling in when almost everyone on a team leaves town at the same time! Please call Bonnie or me if you are interested. The qualifications are: good eyes for spotting plants, patience and assistance as the team works through keys, and a commitment to wildflower education.

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A gift in memory of Dick Smith was made by the Club to Preservers of the Blue Ridge Parkway. The following is the acknowledgement we received from Jeanne Smith.

Dear Friends:

I wish to thank you all for the gift to the "Preserve the Parkway" program in memory of Dick. You could not have chosen a more appropriate memorial as the Blue Ridge Parkway was Dick's favorite botanical hangout. If regulations had allowed, he would have camped at Wolf Mt. Overlook. One of our last trips up there was in March with snow all along 215. He wanted to make sure an early spring landslide had not damaged this spot. He loved every overlook, every trail, every plant and every one of his Botanical Club friends. Bless you all. - Jeanne

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Cover drawing from An Illustrated Flora of the Northern U.S. and Canada (Dover Publication)

RECORDER RAMBLINGS Betty Jones

The nineteen people who participated in the Rivercliff Farm field trip were treated to an easy walk, a variety of blooming spring flowers (46 species in bloom), an abundance of Spring Beauty (*Claytonia virginica*) and cool drinks and snacks at the end, provided by our hosts.

The recorder's report for the Tanbark Tunnel to Bull Gap walk says it all: "In spite of soaking wet papers and steamy eye glasses, we had a spectacular show of flowers. I was especially excited to see the whorled pogonia for the first time! We were really hardy souls with a wonderful fearless leader (Elisabeth Feil) - Great fun." Eighty plant species were identified - a high for the season.

The walk through the woods from the Greybeard Mountain Overlook was a new one for the group. I was particularly excited by the patch of Cream-colored Wake Robin (*Trillium erectum*) - a first for me. And for most of us it was our first encounter with Ramps or Wild Leeks (*Allium tricoccum*).

The stop-and-go trip along the Blue Ridge Parkway South yielded its usual variety of plants. A bonus drive to Grassy Ridge provided the highlight of the trip - blooming Indian Paint Brush (*Castilleja coccinea*). The North Carolina Arboretum presented us with a whopping 67 different species in bloom along the service roads. This was an easy shady walk and we had comfortable seating for lunch on the logs in the azalea repository.

"Magnificent, spectacular and awesome" were the recorder's words to describe the large patch of Bluebead Lily (*Clintonia borealis*) in bloom on the Big Butt walk. But they were nearly outdone by the splendid displays of Canada Mayflower (*Maianthemum canadense*) and Solomon's Plume (*Smilacina racemosa*). It took sharp eyes to spot the little flowers of Rose Twisted Stalk (*Streptopus roseus*).

Thirty-two members and guests enjoyed good food and fellowship at the annual summer picnic at Holmes State Forest.

The Bee Tree Gap / Craggy Gardens walk attracted the largest attendance this season - 25. As usual, the Flame Azalea, Catawba Rhododendrons and Mountain Laurel drew special attention.

Roan Mountain was special for the abundance of some plants and the rarity of others. Three plants took the prize for abundance: Michaux's Saxifrage (*Saxifraga michauxii*), Wine-leaved Cinquefoil (*Sibbaldiopsis tridentata*) and Tassel Rue (*Trautvetteria carolinensis*). Gray's Lily (*Lillium grayi*) - the plant on the cover of Dick Smith's book - was in bloom, but not in the numbers reported on previous walks. Other special plants seen on this trip were *Senecio schweinitzianus*, *Veratrum viride* in bloom, *Lysimachia ciliata*, *Geum radiatum*, *Potentilla argentea* and *Houstonia purpurea v. montana*.

Haywood Gap lived up to its promise of a splendid display of Fly Poison (*Amianthium muscaetoxicum*). Fire Pinks (*Silene virginica*) and Purple Bluets (*Houstonia purpurea*) colored the meadow area, but the Phlox have nearly disappeared. Those limber enough to stoop down examined the tiny Dwarf Enchanter's Nightshade (*Circaea alpina*) through a hand lens.

THOSE LATIN NAMES Betty Jones

Folks have asked what authority I am using for the plant names I use for our botanical walk checklists. Answer: For scientific names I am using Dick Smith's Wildflowers of the Southern Mountains and Wofford's Guide to the Vascular Plants of the Blue Ridge (©1989) for those species not included in Dick's book. Common names come from a variety of sources: Dick's book, Newcomb, Wofford .. but I try to include a name that the club has used in the past. Often I will show a second common name. If you are not native to this area (as few of us are), you may call a plant by yet another name.

For those of us who are newcomers to the field of botany, the Latin names can be intimidating. Why say *Trifolium repens* when White Clover seems so much easier? The reason, clearly, is that the Latin names are universal, understandable by Italian, Japanese or English speaking people alike. Not so the common names which are not even "common" to all parts of the English speaking world. So Latin it is.

What's in a name? ... a Latin name, that is. Quite a bit as it turns out. Let us consider a few simple Latin plant terms:

- *florus, flora, florum* Refers to the flower. Derived English words: flower, floral, florid
- *folius -a -um* Refers to the leaves. Derived English words: foliage, folio
- *foliatus -a -um* Same as above.
- *phyllus -a -um* Also refers to leaves, but the root of the term is Greek. Cooks will recognize this term in "phyllo", that extremely thin pasty dough.
- *petalus -a -um* Refers to petals, of course.
- *partitus -a -um* Refers to parts

Next we learn the number forms:

1-uni 2-di 3-tri 4-quad or quadri 5-quin or quinque 6-sex 7-sept 8-oct 9-nona 10-dec
12-dodeca 1000-mille

Now, let's look for combinations of them in our checklist plants:

Monotropa uniflora (Indian Pipe) - *uniflora* tells us that this plant has one flower in contrast to related species which have more.

Arisaema triphyllum (Jack-in-the-Pulpit) - *triphyllum* = three leaves.

Viola tripartita (Three-parted Violet) - Refers to the three parts into which the leaves are divided.

Panax trifolius (Dwarf Ginseng) and ***Panax quinquefolius*** (Ginseng). See how the names describe one obvious difference between them?

Consider these plant names. Do the names give you a clue to plant features?

Lycopus uniflorus

Orobanche uniflora

Cardamine diphylla

Angelica triquinata

Asimina triloba

Bidens tripartita

Delphinium tricorne

Galium triflorum

Magnolia tripetala

Porteranthus trifoliatus

Prenanthes trifoliata

Rudbeckia triloba

Sibbaldiopsis tridentata

Trifolium sp.

Trillium sp.

Zizia trifoliata

Asclepias quadrifolia

Lysimachia quadrifolia

Anemone quinquefolia

Angelica triquinata

Viola septemloba

Aesculus octandra

Agalinis decemloba

Dodecatheon meadia

Achillea millefolium

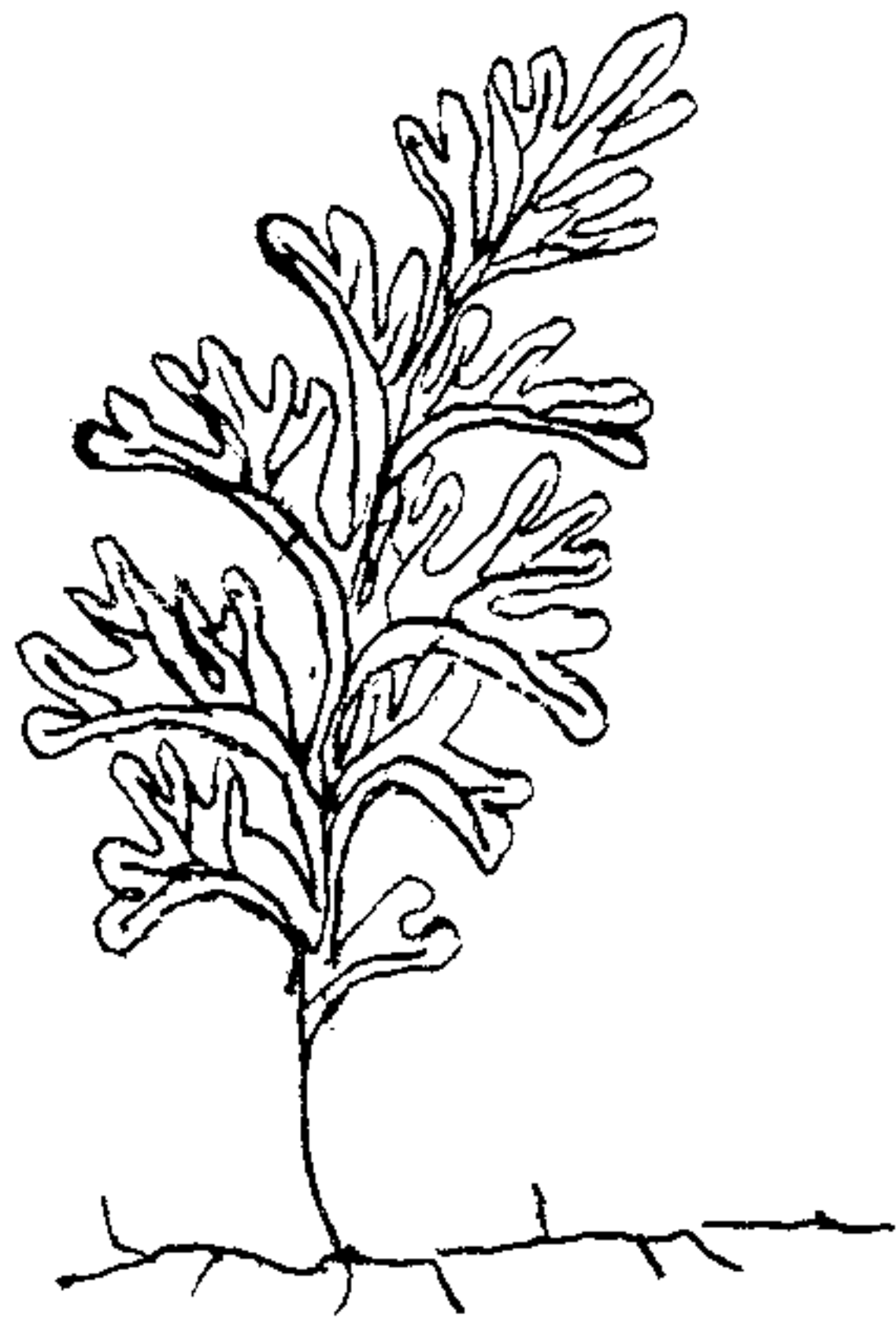
Next time:

Shapes and sizes

EASTATOE CREEK HERITAGE PRESERVE.....Erika S.Parmi

Last fall Anne Ulinski, Gisela Smith and I investigated one of the nearby South Carolina natural heritage preserves, the Eastatoe Creek Heritage Preserve. The trail into the preserve is a five mile round trip and follows old logging roads until the final mile when it becomes very narrow, rough and steep as it descends into a deep gorge. We were hoping to find three rare ferns which have been identified on rock faces in the gorge.

The first mile of trail leads through a recently logged area in the early stages of regrowth. Here one can catch a glimpse of the highest peak in S.C., Sassafras Mountain at 3560 feet. Shortly thereafter the road descends to a scenic forest of large old tulip, hemlock, American beech, birch and oak trees. There is a magnificent white oak nearly three feet in diameter and later on a tulip tree reputed to be at least eight feet in circumference.



Near the end of the trail are several rock faces where constantly dripping water provides just the right high humidity for ferns and a variety of liverworts. Here is the site for three uncommon ferns, the very rare Tunbridge fern *Hymenophyllum tunbridgense*, (Radford p.15-16), and the Eastern and Dwarf filmy ferns *Trichomanes* ssp. (Radford p.14-15). Anne and I believe we found the tiny Tunbridge fern, but we would not stake our lives on it! We could not identify the filmy ferns. According to the "Flora of North America" (Vol II. 1993), only about two dozen small populations exist in North America and these are in this river gorge in Pickens County, S.C.

Hymenophyllum tunbridgense
Tunbridge Fern

The trail finally descends to a large flat park-like area beside the creek--a wonderful place for lunch. Large rocks offer resting spots and old hemlocks dominate the canopy. It is this area that is supposed to be carpeted with trilliums in the spring. According to the Preserve leaflet this last mile of trail also has varied spring wildflowers including 16 species of violets.

The Eastatoe Creek Heritage Preserve trailhead can be reached at the Foothills Trail off U.S. 178 about eight miles north of the intersection of S.C. 11 and U.S. 178. If you would like more information on this trail, please call me at 883-8021.

Tunbridge fern drawing is by Pat Arnett

TENNESSEE CHICKWEED

Did We Overlook It Up to Now?.....Elisabeth Feil

I'd often seen the low carpet of opposite-leaf plants, but never paid any attention to them. On our outing on the Mountains-to-Sea Trail from Graybeard Overlook to Glassmine Falls Overlook this spring, I noticed for the first time white flowers on these plants that looked like crippled Giant Chickweed (*Stellaria pubera*) flowers, and I dismissed them as just that. (My excuse: I was late and in a hurry to meet the group.)

Upon Anne's suggestion, I started to look a bit closer. What I saw - as Anne had suspected - is a different species: Tennessee Chickweed, *Stellaria corei*. It is on the North Carolina Watch List.

The two species are not always easy to distinguish, so a close look is required. Giant Chickweed grows in clumps, and the leaves are sessile. The blunt sepals (4-6 mm), which have ciliate margins and usually some hairs on the back surface, are barely visible between the longer petals. Tennessee Chickweed is stoloniferous, sometimes forming extensive "carpets" and has the middle and lower leaves on 1-2 cm petioles. The pointed sepals (7-11 mm) are equal to or longer than the petals; they have ciliate margins but are usually glabrous on the back surface.

I think we need to keep our eyes open for this plant that has puzzled researchers for a long time, as reflected in the many different scientific names it was given over time:

Britton & Brown, 1913,	<i>Alsine tennesseensis</i>
Britton & Brown, 1952,	<i>Stellaria silvatica</i>
Gray's Manual, 1950,	<i>Stellaria pubera</i> var. <i>silvatica</i>

Radford, Ahles, Bell, 1968,	<i>Stellaria corei</i>
Strausbaugh & Core, 1971,	<i>Stellaria corei</i>
Wofford, 1989,	<i>Stellaria corei</i>
Gleason & Cronquist, 1991,	<i>Stellaria pubera</i> var. <i>silvatica</i>

They report the chromosome numbers for *S. pubera* var. *pubera* as $2n=30$, for *S. pubera* var. *silvatica* as $2n=60$, but did not give var. *silvatica* species rank.

Smith, 1998,	<i>Stellaria corei</i>
Weakley, unpublished	<i>Stellaria corei</i>

Tennessee Chickweed, *Stellaria corei* Shinnery, was named after Earl L. Core, who taught at the University of West Virginia from 1928 until 1972 where he was Curator of the Herbarium for 38 years until his retirement. He was influential in founding The Southern Appalachian Botanical Club and served as editor of its journal *Castanea* for 35 years. He was also involved in civic affairs in his home town of Morgantown. Among his many publications is "The Flora of West Virginia" which he co-authored with P. D. Strausbaugh. Dr. Core died in 1984. (Source: *Castanea*, Vol. 50, 1985)

I remember visiting a large garden in England where each group of plants was labeled not only by the common name, genus and species, but also the traditional medicinal usages. You've probably noticed the rapidly increasing interest in the use of herbs and medicinal plants, including many found in our area to the point where the commercial farming of them is feasible. In fact, there's a place in Brevard [GAIA] doing just that. Sure, we'd often heard before about alleged benefits from a few plants like ginseng.....,but St. John's-wort!

It used to be that the only places to buy botanical health and nutrition supplements were health food stores or through a local herbalist who prepared them from scratch such as our own member Peggy Ellis or our friend Cindy Carpenter who knows some of the old-timey remedies. Now even the supermarket chains and pharmacies find such supplements to be marketable.

Maybe the biggest challenge is to know which of the items is truly useful for needs specific to each of us as individuals. Several sources are available: the Internet, local herbalists whom one trusts, the few doctors who are open to so-called "alternative medicine", dietitians whom one knows, newspaper articles or relevant books from the library. The goal in all of this is to find "natural" (i.e. nature's) ways to counteract or replace the effects of highly processed foods and chemically-assisted production, as well as individual medical problems created by our polluted environment.

It is alarming that a number of our most serious health problems seem to be getting worse in spite of our vaunted progress in medical science. New strains of harmful bacteria and viruses seem to be developing or mutating. It is scary to learn that many of the foods advertised heavily as "fat free" may actually be more harmful than the fats they replace in our diet. Now it's beginning to look like cholesterol control is not the most effective approach to heart disease and that counting calories has little value without giving attention to the manner in which these calories are burned. These are complex issues but foods produced with heavy uses of chemical fertilizers and pesticides are surely part of the picture.

Botany is at the heart of production of food and fiber from the soil and air. Have chemical alterations in the botanical simplicity of true food production become so pervasive that it is now impossible to reverse negative effects of non-organic farming? Few of us are qualified to do more than raise such questions. However, do not believe, as I once did, that specific health problems that beset you are either unique or inevitable. We all love to study wildflowers....but botany is so much more than that. Botanical researchers are starting to prove that we may have brought many of our diseases on ourselves. Is it too grandiose to think that in the future of botany lies the future of the human race? I don't think so.

LOOK AGAIN !

Only rarely do we find it necessary to resort to using a hand lens in order to distinguish between two species of plants that are as tall as we are, but the genus Cimicifuga, in the buttercup family, proves that it can happen.

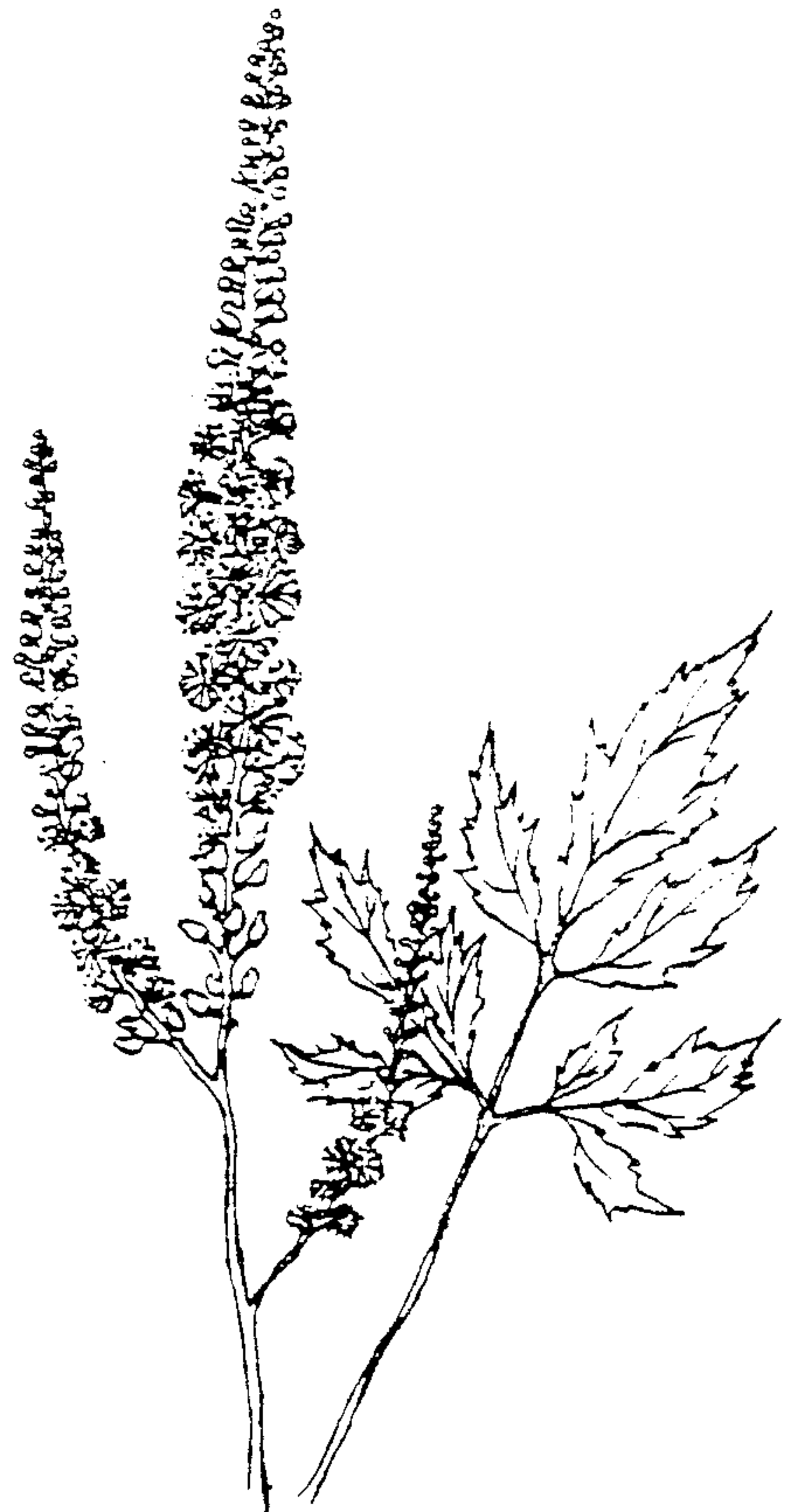
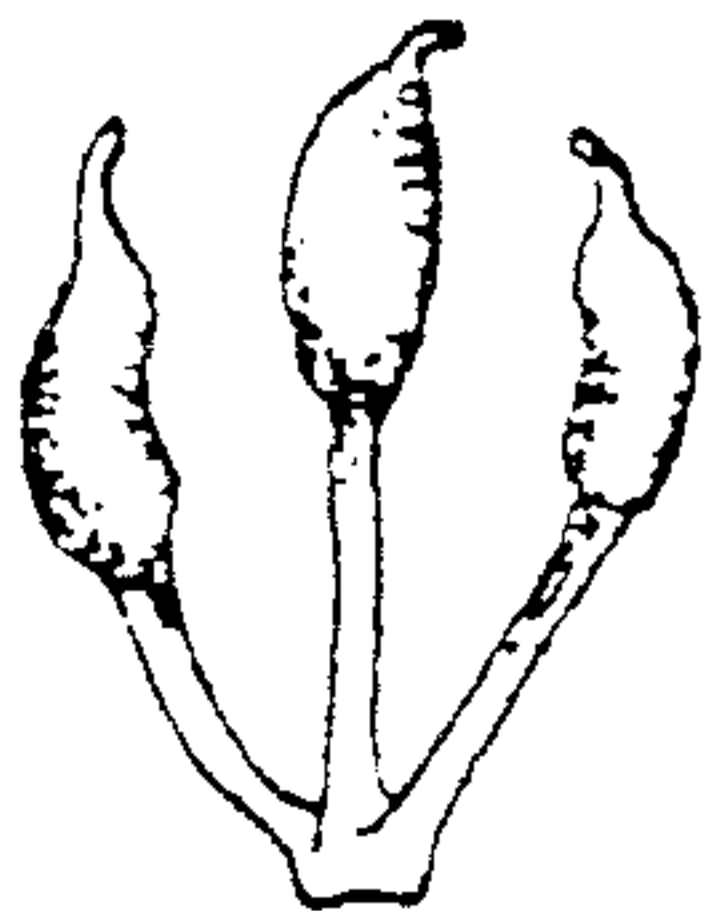
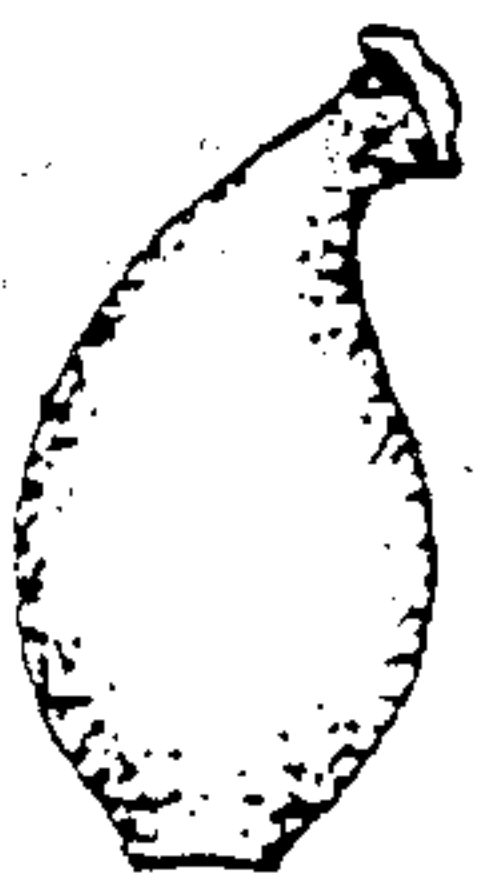
Cimicifuga racemosa (popularly known as Bugbane, Black Cohosh or Black Snakeroot) is so conspicuous and so familiar that we feel confident of being able to call it from twenty feet away without fear of contradiction, but in doing so we often forget that there is another species, C. americana.

There are not many factors to help us avoid misidentification, either. Vegetatively, the two are very similar, although C. americana does not achieve the stature of the larger specimens of C. racemosa. The former is strictly a mountain species and is restricted to the southern part of the Appalachians at that - but of course they both share that territory. It tends to bloom later, but in a given area their blooming seasons can pretty much coincide.

All this overlapping would make it difficult to separate them were it not for the fact that a close look at an individual flower will take care of the problem quickly and positively:

Cimicifuga racemosa has but a single pistil, which is stout and sessile, with a truncate style. C. americana, on the other hand, has from three to eight pistils each of which has a slender stalk, and the styles are awl-shaped.

There are other slight differences, mostly in the follicles and seeds, but if you have the plant in flower this is all you need to know.



Dick Smith

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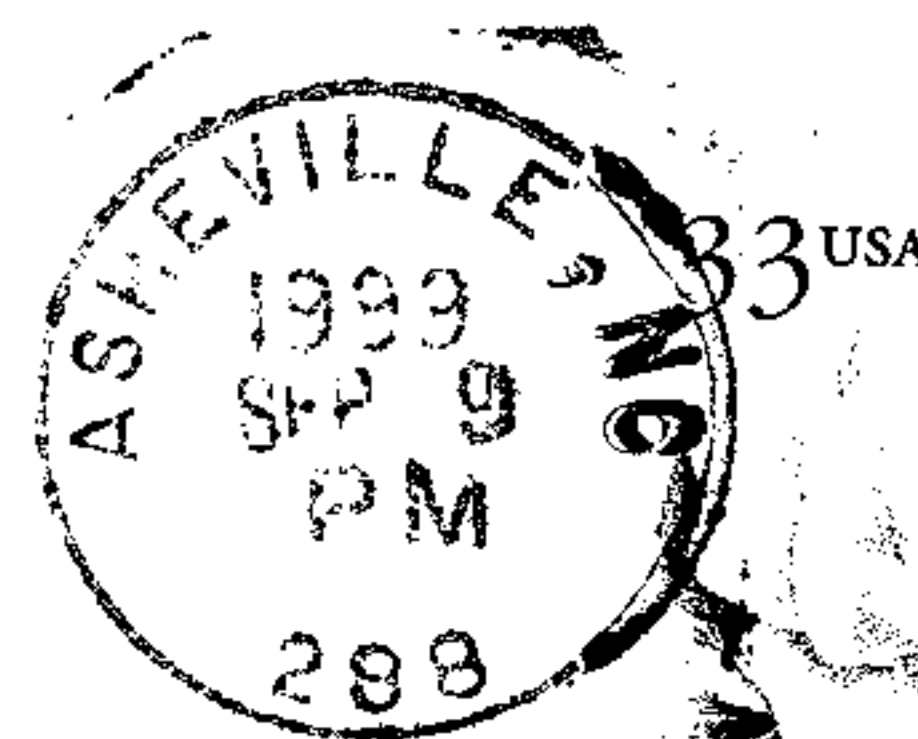
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Please submit contributions for the next issue by Dec, 1, 1999 to: Anne Ulinski
1212 Chanteloupe Drive, Hendersonville, N.C. 28739

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:

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