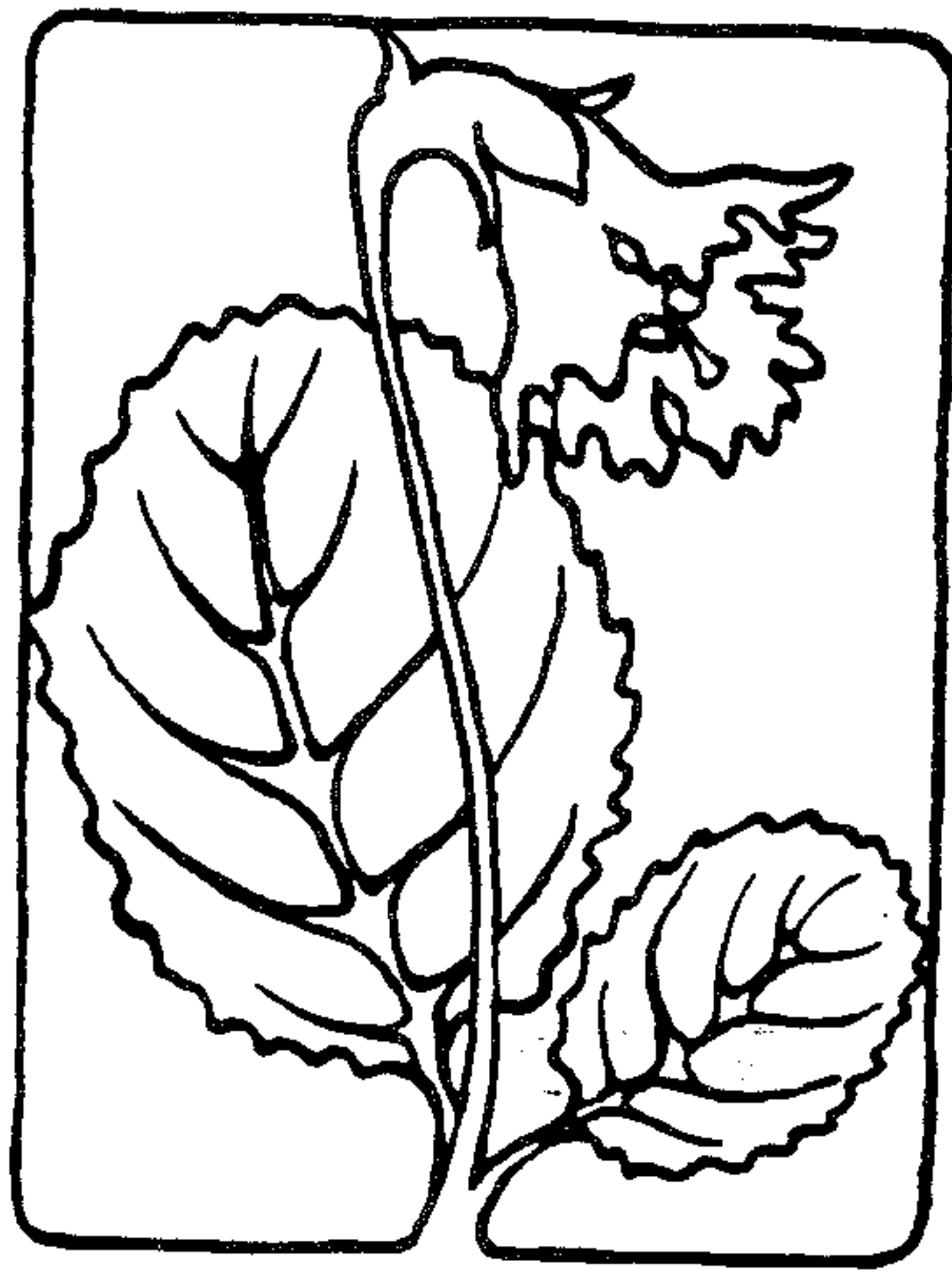


SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

WINTER 1997 - 98



ELTON and ALINE HANSENS
Editors

WESTERN CAROLINA BOTANICAL CLUB

President:	Don Herrman	Treasurer:	Rachel Conway
Vice-President:	Elaine Montgomery	Recorder:	Erika Parmi
Secretary:	Laverne Pearson	Historian:	Louise Foresman

FROM THE PRESIDENT.....DON HERRMAN

October again and the year is slipping away. Looking back, it is great to note what a fine, active group of people we have in our club. Even in questionable weather we have good turnouts.

As we approach our annual meeting, January 16, 1998, we will be remembering that this will be 25 years of field trips and other get togethers. Even SHORTIA will look forward to its 20th year of binding us together. Such a pleasant history is a credit to the participation of our membership.

Now there is the question of membership. We have been basing our mailing list on those who pay their dues. But what about the people who forget? Please, pay your 1998 dues of \$8.00 by the time of the annual meeting or shortly thereafter. Our treasurer will certainly appreciate early payment. Those who forgot to pay in 1997 are welcome to pay 1998 dues.

Although the year may be slipping away, October in the meadows is the time of the ladies' tresses and on the first of the month they arrived. But I must admit the purple asters are stealing the show. What is "stealing the show" at your house?? Let the Editors of SHORTIA know--thank you.

NEW LOCATION FOR JANUARY 23 PROGRAM.

"A YEAR IN THE WHITE MOUNTAINS" by Erika Parmi will be presented at the First Citizens Community Room at 2:00 p.m. on Friday, January 23, 1998. MAKE A NOTE OF THIS CHANGE IN YOUR SCHEDULE.

The meeting on FRIDAY, NOV. 14 "LET'S LOOK AT MUSHROOMS" has been cancelled; the meeting room is unavailable.

The meeting on Friday, January 30, 1998, "MYSTERY" has been cancelled and will remain an open date.

1998 -WCBC 25th ANNIVERSARY YEAR

RECORDER'S REPORT FOR JUNE THROUGH OCTOBER 1997 ERIKA S. PARMI

In recent months no field trips were cancelled due to inclement weather. Raven Cliff Falls was substituted on October 3 for the Chandler Preserve because the road into Chandler is in poor condition. In spite of the rather dry summer, botanizing was good throughout the season. The trips to Highlands, the North Carolina Arboretum, Buck Springs Nature Trail, Shut In/Elk Pasture Gap, Lake Issaqueena, Parkway South, and the Byrd Farm all yielded between 40 and 60 species in bloom.

One of the highlights of the season was the large display of northern pitcher plants (Sarracenia purpurea) and other bog plants at the Highlands Nature Center. For those of you who have never been there, the Center is definitely worth a visit. The plants are labeled and identified for you. On their way to the fogged-in peak of Mt. Pisgah, nine members enjoyed outstanding displays of blooming galax, fly poison, rosebay rhododendron, and clammy azalea.

August 8 on Mt. Mitchell also was foggy, but abundant green wood orchis, St. Johnswort, green-headed coneflower and Michaux's saxifrage were seen. There were also many grasses and sedges that remained unidentified. The participants on the Buck Springs hike were able to compare the fruits of the American and beaked hazel-nut trees. On the August 15 trip to Carl Sandburg comparatively few mushrooms were seen because of the hot dry summer. At Lake Issaqueena we found more than 60 species of flowers in bloom, but no mass displays.

Twenty-five members enjoyed the hospitality of Margaret and Carl Byrd at their farm. We walked through several different habitats - woods, fields and stream-side finding about as many species as we had at Lake Issaqueena. We enjoyed a picnic lunch at the tables and chairs that the Byrds had set up at the site of the old homestead. Many of us were interested in the photo scrapbook history of the farm.

The June picnic at Don Herrman's was attended by 35 persons. Those who attended the picnic at Connestee Falls enjoyed the company of Bill Verduin who was visiting from Virginia. He has been missed by the Club. It has been good to see Dick and Jeanne Smith on so many of our field trips, now that Dick's book is at the printers. Field trip leaders can count on his vast knowledge of wildflowers and his willingness to assist in identification.

BELIEVE IT OR NOT

All sorts of surprises can be encountered on WCBC trips. On the return trip from Lake Issaqueena on Sept. 5, we were travelling on Route 11 near the turn to Jones Gap State Park when cars on both sides of the road slowed to a crawl and the drivers became very cautious. The cause was soon evident. A pig about 2 feet long was walking nonchalantly up the center of the highway and, "Believe it or not", was followed by a small piglet. We soon passed the pig and piglet without difficulty and resumed normal speed.

EJH

Known as the monarch of the eastern forests, northern white pine, Pinus strobus, flourishes from Newfoundland to Manitoba and from New England west to Iowa and Minnesota and south along the Appalachians to Georgia. European foresters know it as the Weymouth pine for Lord Weymouth who planted it on his English estate more than 200 years ago.

This tree, with its sturdy, tapering trunk is characteristic of many northern forests where it may grow to a height of 250' with a trunk 6' in diameter. Next to the sugar pine of California, the northern white pine is the largest pine of the U.S. It will grow on deep sandy loams but prefers fertile, moist, well-drained sites.

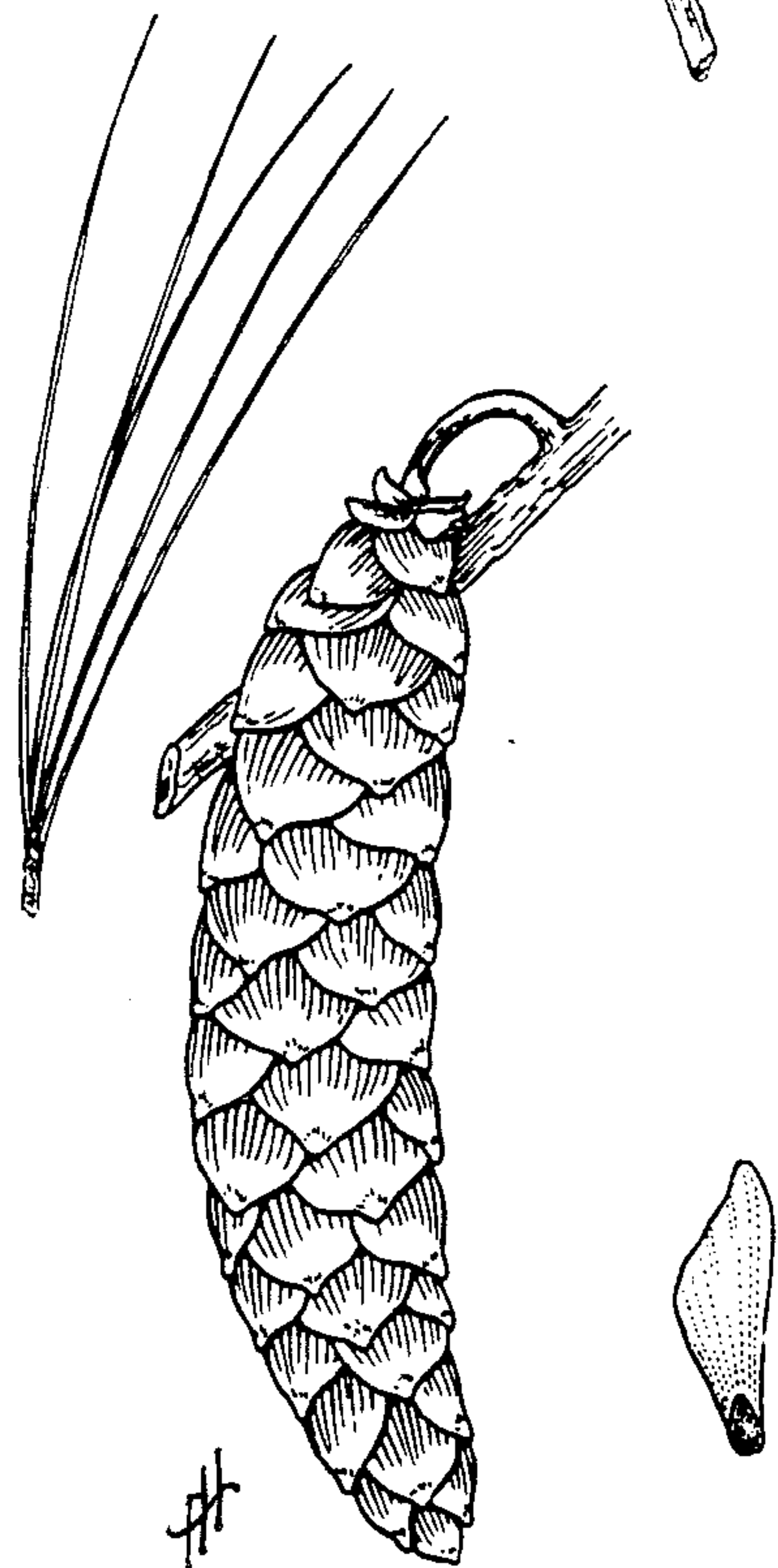
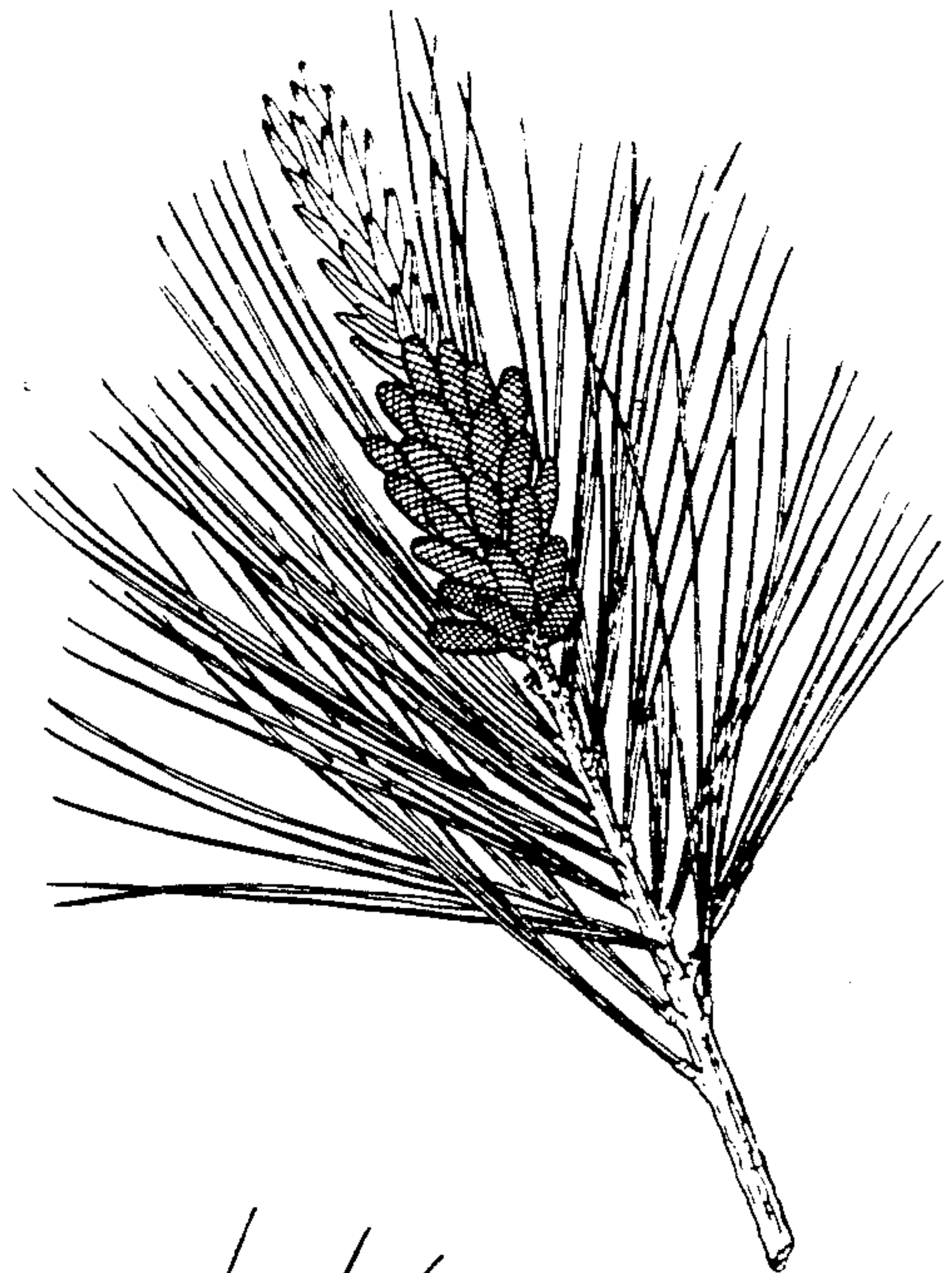
Young trees develop moderately long tap roots with spreading lateral roots. The latter develop rapidly as the tree matures, resulting in a shallow root system.

This is the only native pine with 5 needles in a bundle. Its separate male and female flowers are borne on the same tree. In May and June, the yellow staminate flowers appear, producing quantities of yellow pollen. At the same time, pink pistillate flowers occur. By the end of the first season these become tiny, upright green cones about 1" long. These cones elongate during the second season, growing 5 to 11 inches before turning brown and maturing in August. By September winged seeds are spread by the wind and consumed by red squirrels ("boomers) as their major winter food.

The scientific name, Pinus strobus, derived from Greek and Latin, refers to the conspicuous spindle-shaped cone.

White pine forests are very valuable. The wood of white pine is light and easily worked. In colonial days the British Crown found the wood suitable for ship building and a great many white pines were reserved for the Royal Navy. Today it is a favorite lumber for construction of many types but is less available commercially because of the tree's susceptibility to white pine blister rust and the white pine weevil.

EASTERN WHITE PINE



GETTING TO KNOW YOU.....ALINE HANSENS

Bockoven, Paul & Beth (Elizabeth): 105 High Rocks Trail, Hendersonville, NC 28739. (704) 697-5998. Paul, originally from the Midwest, is Director of Outdoor Education at Kanuga Conference. Beth, a native North Carolinian, is a full time student at WCU in Cullowhee, presently working for a Masters Degree in Biology. Both are very interested in botany and ornithology and lead nature hikes at Kanuga. They learned of WCBC from Peggy Polchow.



Bokerman, Sandra L.: 247 Tanasee Gap Road, Balsam Grove, NC 28708. (704) 862-5722. Sandra is a native of Ohio and moved to NC about 5 years ago. She has an interest in plants but is a novice with a keen desire to learn. Loves the outdoors and hiking.

Kilmer, Lori: 67 Gosling Circle, Hendersonville, NC 28792. (704) 697-6431. Encouraged by friends in this area, Lori moved here from southern CA about 4 years ago. Was attracted to and bought Louise Foresman's house and its wealth of natural habitat sparked her interest in plants. She learned of WCBC from Ruth Hoerich.

SHORTIA AVAILABLE IN LIBRARIES

SHORTIA, Vol. 1 No. 1 to date is now catalogued in the library of UNCA and is housed in the library of the Botanical Gardens At Asheville. Shortia is also available at The New York Botanical Garden Library in NYC and at the Hunter Library of WCU at Cullowhee, NC. J. Dan Pittillo, Editor, Chinquapin: newsletter of the Southern Appalachian Botanical Society also has a set.

This project was started about a year ago when the Editors of SHORTIA received a letter from Dr. William R. Buck of The New York Botanical Club who expressed interest in obtaining back issues of SHORTIA. After considerable effort we were able to round up a complete set and copies were made at cost for the above 4 sets under the direction of Mr. George Frizzell. The Editor of Shortia has the original set. We had no idea that there was such interest in SHORTIA.

Working for Wildlife!

By the spring of 1998, the Pisgah Center for Wildlife Education's indoor and outdoor exhibit areas will be fully open to the public. Volunteers will be an important component to the wildlife center's success. There are a variety of volunteer opportunities available at the wildlife center including the following: Exhibit Gardening, Information Desk/WILD Store personnel and V.I.P. (Visitor Interpretive Personnel). If you are interested in volunteering, please call the wildlife center at (704) 877-4423.

BUCK SPRINGS NATURE TRAIL REVISITED

No one who walks the one-mile trail that parallels the Blue Ridge Parkway between Pisgah Inn and Buck Springs Gap Overlook can fail to note the extraordinary number and variety of its wildflowers and other plants.

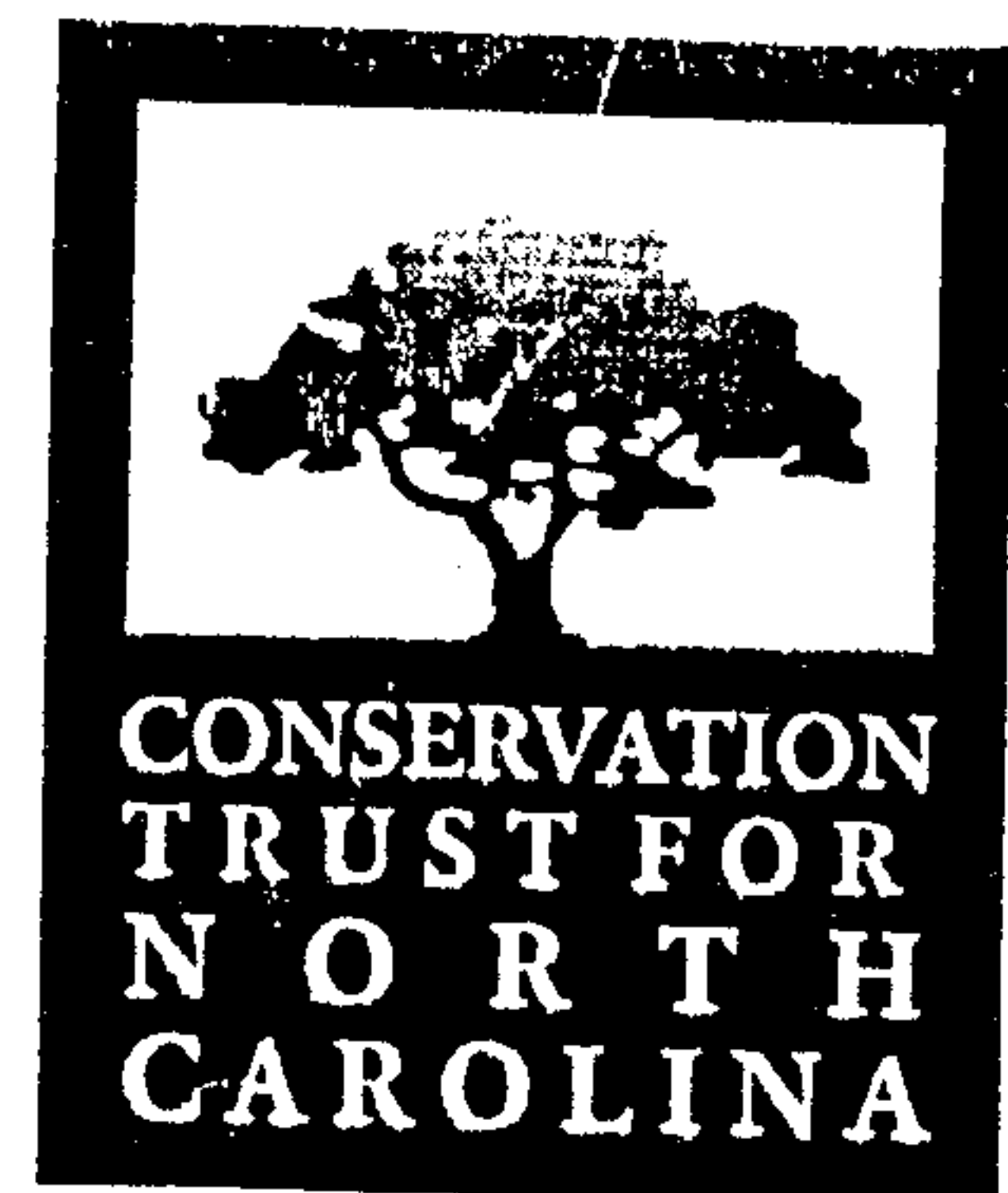
Recognizing this diversity, the Western Carolina Botanical Club approached the National Park Service in 1984 with an offer to develop this segment into a self-guiding interpretive botanical trail as a public service, and the following spring entered into a contract under their VIP ("Volunteers in the Parks") Program, charging its successive presidents, Dick Smith and Elton Hansens, with coordinating the project. During the next five years, teams of Club members surveyed the route, eventually compiling an inventory of more than 200 species of flowering plants along the trailside. Significant botanical features were selected and identified by 24 numbered posts; these were keyed to a descriptive brochure written by Dick on behalf of the Club for public distribution by the Parkway.

Seven years have now elapsed since completion of the "Buck Springs Nature Trail," and although the natural appeal of the trail itself remains undiminished the brochure is no longer available. To partially remedy this situation, and to enable its members, both old and new, to renew their enjoyment of this resource at the fullest, the Club has arranged for a limited reprinting and the Editors of *SHORTIA* are pleased to enclose a copy in this issue as a "pull-out."

Save the Blue Ridge Parkway The nation's oldest, longest rural parkway needs your help!

Many of the breathtaking scenic vistas of North Carolina's Blue Ridge Parkway are threatened by encroaching development. Preservers of the Blue Ridge Parkway has a direct and effective solution. We are raising a private fund to purchase land and conservation easements that will permanently preserve the spectacular Southern Appalachian hillsides, valleys, forests, streams and waterfalls that the Parkway celebrates.

The threats to the Parkway's beauty are real and immediate. Become a Preserver of the Blue Ridge Parkway today. Your special gift in any amount will go right to work protecting the "Blue Ridge Parkway experience" for generations to come. Donors of \$500 or more receive a beautiful full-color certificate signed by the Governor of the State of North Carolina and inscribed with the donor's name. All gifts are tax-deductible. The Preservers fund is administered by the Conservation Trust for North Carolina. Send contributions to: CTNC/Preservers of the Parkway, PO BOX 33333, Raleigh, NC 27636. For donations of \$500 or more, please include the name(s) that should appear on the certificate. Allow 3-4 weeks for delivery.



be a plant of northern regions, which explains why it is only seen at high elevations in the south. The tiny flowers seem hardly worth noticing, but they are unique in that their parts are not in threes, fours, or fives—as is the case with most plants—but in twos. Accompanying it are mat-forming plants with numerous little leaves; these are **Thyme-leaved Bluets** (*Houstonia serpyllifolia*).

20. Wild Columbine (*Aquilegia canadensis*)

Columbines have unusual flowers with their nectar stored at the ends of long, hollow spurs. Although there are many kinds of columbine in the western mountains, this red-and-yellow species is the only one native to the eastern United States. It is primarily a spring wildflower but can be found blooming sporadically almost until frost.

21. Mountain Laurel (*Kalmia latifolia*)

A relative of the rhododendrons, mountain laurel is another spectacularly blooming heath shrub. Each of its white to pink cup-shaped flowers has ten curved stamens with their anthers tucked into little pockets. When a bee alights, its weight releases the spring tension and the stamens snap out and over the insect, showering it with pollen. On contact with the next flower, some of this is brushed off on its stigma, and this helps to promote cross-fertilization.

22. Oriental Bittersweet (*Celastrus orbiculatus*)

This vigorous climbing vine was introduced into this country from Asia. Its flowers are inconspicuous, but in the autumn its bright red fruits are revealed when the round orange husks split apart into three spreading segments.

23. Goldenrods (*Solidago* spp.)

With more than 40 kinds in North Carolina alone, the goldenrods are the despair of those who try to tell one from another, but with the help of a field guide you may be able to identify several between here and the overlook. Among those that have been recorded are **Slender Goldenrod** (*S. erecta*), **Curtis' goldenrod** (*S. curtisii*), **Late Goldenrod** (*S. gigantea*), and **Rough-leaved Goldenrod** (*S. rugosa*). One that should give you no trouble at all is *S. bicolor*, or **Silverrod**, the only white-flowered species.

It is unfortunate that such an attractive native American wildflower as goldenrod should have been blamed at one time for causing hay fever—an unjust accusation since its pollen is heavy and sticky and is disseminated by insects. Such allergies are much more likely to be caused by the fine windborne pollen of plants such as ragweed.

24. Asters (*Aster* spp.)

Nothing contributes more to the beauty of the early fall scene than the white and pastel tints of the wild asters. They are especially numerous here where they share the sun with the goldenrods. Among the more conspicuous are the freely branched **Frost Asters** (*A. pilosus*) with numerous white flowers, and the sky-blue **Heart-leaved Asters** (*A. cordifolius*).

Many other species will be seen both here and along the trail as you retrace your steps to the Pisgah Inn parking lot. Watch for **Large-leaved Asters** (*A. macrophyllum*), which often form big colonies of sterile plants, and **Calico Asters** (*A. lateriflorus*) with small reddish-centered flowers borne on arching stems. **Curtis' Asters** (*A. curtisii*) can be recognized by the recurved green bracts beneath the blue ray-flowers.

This marks the end of the botanical tour. The path continues for about a tenth of a mile to Buck Spring Gap Overlook and the parking area where the Shut-in and Mt. Pisgah Trails commence.

This leaflet was written for your enjoyment by members of the Western Carolina Botanical Club in cooperation with the Blue Ridge Parkway.

BUCK SPRINGS TRAIL A Botanical Tour Blue Ridge Parkway

This fairly level one-mile path is a section of the longer Buck Spring Trail. The botanical tour begins at the Pisgah Inn parking lot (milepost 408.6 on the Blue Ridge Parkway) and ends at the hunting lodge site near Buck Spring Gap overlook (milepost 407.7) and returns via the same route.

Along the trail you will see an extraordinary concentration of plant species. Much of this diversity is due to the fact that it passes through what, despite the southern location, is termed a "northern hardwoods" forest—the vegetation zone lying between the high altitude spruce-fir forests and the eastern deciduous woods that occupy vast areas at lower elevations.

In the fall, many trees, shrubs, and woody vines drop their leaves, and herbaceous plants wither or disappear completely. Some can be recognized even in winter, however, by their empty seed pods or other fruiting structures.

To minimize the impact of heavy trail use upon these plants, please stay on the established path.

As you approach the trail map sign, notice the two evergreen trees that have been planted to the left of the steps. The one bearing upright cones at the very top is a Fraser Fir (*Abies fraseri*) and the other is a Carolina Hemlock (*Tsuga caroliniana*). Although both are native to the North Carolina mountains, they do not occur naturally on this trail.

1. Highbush Blueberry (*Vaccinium corymbosum*)

Although they are not as large and succulent as the "improved" varieties that are grown commercially, wild blueberries are delicious and have a special tangy flavor of their own. The heath family, to which they belong, is a predominantly northern group of plants requiring acidic soil. It is well represented here by such shrubs as mountain laurel, the rhododendrons and azaleas, and minnie-bush, as well as trailing arbutus and even Indian pipe. Only one tree in this family, **Sourwood** (*Oxydendrum arboreum*), is present here.

2. Canada Mayflower (*Maianthemum canadense*)

Canada mayflower is common in the northeast, where it spreads over large areas, but here, where it approaches the southernmost limit of its range, the colonies are smaller. Its floral parts are in sets of four, which is unusual since most other members of the lily family are three- or six-parted.

3. American Chestnut (*Castanea dentata*)

It is hard to believe that less than a hundred years ago the American chestnut was a dominant tree of the eastern forests. An alien fungus has virtually wiped it out, and, although stump sprouts persist and often produce nuts, they are almost certainly doomed. A related shrub, **Allegheny Chinquapin** (*C. pumila*), also grows along the trail and might be mistaken for chestnut, but the lower surface of its leaves is white-downy instead of light green and smooth.

4. Deerberry (*Vaccinium stamineum*)

Unlike its relatives the blueberries, deerberry has fruits that remain green and hard and are inedible, but its many blossoms, with their long-protruding stamens, appeal to the eye. Another common name for the shrub is **Squaw Huckleberry**.

5. Starry Campion (*Silene stellata*)

These white flowers with their bowl-like calyces and fringed petals are an attractive feature of the mountains. **Fire Pink** (*Silene virginica*) is a related species; it is impossible to miss, as its five bright red petals stand out vividly against the green background of the woods.

This species is abundant in the cool mountains and can be distinguished by its purple-spotted corollas. A red **Monarda** (*M. didyma*) may be seen in wet ditches along the Parkway. Although it is native, it has been cultivated for many years by gardeners, who call it **Oswego-tea**, and is a favorite of hummingbirds.

7. Mountain Holly (*Ilex ambigua* var. *montana*)

This is one of the deciduous hollies--that is, it loses its leaves in the fall. Except for its bright red berries, it is very unlike **American Holly** (*I. opaca*), which has spiny evergreen leaves and is used extensively for Christmas decorations; the latter is a common understory tree in the south but does not grow at this high altitude.

8. False Solomon's-seal (*Smilacina racemosa*)

Although they have similar leaf arrangements, true and false Solomon's-seal cannot be confused, whether they are in flower or in fruit. **False Solomon's-seal** has creamy white flowers in a branched pyramid at the end of the stalk, and the berries are reddish and speckled. In the **True Solomon's-seals** (*Polygonatum* spp.), which also are frequent along this trail, the flowers are bell-shaped, greenish, and dangle beneath the leaves. These are succeeded by dark blue berries. As each year's stem of Solomon's-seal dies back, it leaves a round scar on the creeping rootstock, and these are what suggested the common name.

9. Vines

The arching stems of the **Blackberries** (*Rubus* sp.) in this bramble-patch support a number of vines, among them **Leather-flower** (*Clematis viorna*), which bears crimson urn-shaped flowers formed of thick, fleshy sepals, and the very dissimilar white-blossomed **Virgin's Bower** (*C. virginiana*). Others are interesting for their fruits; **Wild Yam** (*Dioscorea villosa*) has strings of parchment-like capsules, while **Carrion-flower** (*Smilax herbacea*), a thornless relative of the catbriers, produces dense round clusters of blue berries.

10. Minnie-bush (*Menziesia pilosa*)

Minnie-bush has flowers like those of a blueberry and leaves like an azalea. A good clue to identifying it is the callous at the tip of each leaf, looking like a tiny drop of white paint.

Beaked Hazel (*Corylus cornuta*)

Nearby are several beaked hazels, which are among the most abundant shrubs along the trail. The hairy green bracts that enclose the nuts of this species fuse together and form a long, narrow tube. In **American Hazel** (*C. americana*), which also grows here, these bracts look like leaves with ragged edges. This makes it easy to tell them apart--provided you find the nuts before they are harvested by squirrels and other wildlife.

Horse-balm (*Collinsonia canadensis*)

A few yards farther along you will begin to see horse-balm, a perennial herb that combines very large leaves with small, delicate flowers--which are worth examining closely. Their structure shows the plant to be a member of the mint family, which may come as a surprise because it has a subtle fragrance more like lemon than mint.

11. Primitive Plants

Along the right-hand edge of the trail are a number of non-flowering plants (which reproduce by means of spores rather than seeds). Mosses are represented by the flat, aptly-named **Fern Moss** (*Thuidium*) and the upright "bottle-brush" stems of **Haircap Moss** (*Polytrichum*). Lichens--which

are composed of a fungus and an alga living together in an apparently mutually beneficial arrangement--vary from the whimsical **Pyxie Cups** to the fragile multibranching tufts of **Reindeer Lichen**, so called because some arctic forms are important food for caribou; both are species of *Cladonia*. Behind these may be seen the tapered fronds of **New York Fern** (*Thelypteris noveboracensis*).

12. Lily-of-the-Valley (*Convallaria majalis* var. *montana*)

At first glance, these may appear to be cultivated lilies-of-the-valley that have escaped from someone's garden, but actually they are a variety thought to be native to the southern Appalachians. One difference that will be readily apparent is that the mountain plants do not grow in densely crowded colonies as do those of European origin.

13. Witch Hazel (*Hamamelis virginiana*)

Witch Hazel is the last of all our trees to bloom, its yellow, ribbon-like flowers not opening until mid-September or later. When the woody seed capsules mature, they suddenly burst open with a loud "pop" and eject the seeds for long distances. This is its method of populating new areas.

14. Red Spruce (*Picea rubens*)

Red Spruce is the predominant evergreen tree in this area. A boreal species, it is widespread in Canada and New England but ranges south only as far as North Carolina, and there only in the higher mountains. Superficially, it resembles Fraser fir but has cones that hang downward and has sharp-pointed needles.

15. Catawba Rhododendron (*Rhododendron catawbiense*)

This is the rose-purple rhododendron that has become world-famous for its displays on the open, sun-drenched mountain balds. It is also the native species from which many horticultural varieties have been obtained. Although it has created its own dark tunnel of shade here, there is no tree canopy above it to block the light. Very few other plants can grow in dense rhododendron thickets, but the ghostly white **Indian Pipe** (*Monotropa uniflora*) is one that does. It feeds on decayed organic material and, having no chlorophyll, does not need sunlight for photosynthesis. Also, the gray threads of **Old Man's Beard Lichen** (*Usnea* sp.), which can exist without contact with soil but needs a humid environment, can frequently be seen hanging from the branches.

16. Galax (*Galax aphylla*)

These beds of galax are a beautiful sight in summer, when slender spires of little white flowers arise from the glossy evergreen foliage. Galax leaves often turn dark red or bronze, especially when growing in full sun.

17. Fetter-bush (*Leucothoe recurva*)

One of several shrubs in the heath family to share this common name, *Leucothoe recurva* bears graceful racemes of white urn-shaped blossoms in early spring before the leaves appear. At that time the plants are inconspicuous, and the fragrance of their flowers often gives the first hint that they are nearby.

18. Painted Trillium (*Trillium undulatum*)

Plants of painted trillium, whose flowers appear briefly in early spring, are scattered here and there on both sides of the path. Despite its dainty appearance, this crimson-striped species thrives on the cold summits of our loftiest mountains. While other trilliums may also be seen here, they do better in protected coves at lower elevations. All trilliums have three leaves, petals, sepals and stigmas, and six stamens.

19. Dwarf Enchanter's Nightshade (*Circaea alpina*)

Opposite this marker is a patch of dwarf enchanter's nightshade. The specific name indicates this to

NOTES FROM WHITE SQUIRREL.....CHARLES R. GUNN

Neither Betty nor I knew John Kuhn, but we do know his favorite plant: His "poor man's orchid", Prunella vulgaris (see below for a discussion of the scientific name), is a member of the mint family. Heal-all or self-heal is one of many European herbs brought to America because of healing powers. It has become abundant from coast to coast; the American plants have deep-purple flowers. In Europe the flowers vary in color from light purple to white. Some 400 years ago John Gerard wrote that heal-all flowers around Heningham Castle in Essex, England were all white.

Our heal-all flowers are beautiful shades of purple, especially the deep purple at the top of the flower's hood. Thoreau admired the flower color, which he recorded deepens in color towards night. The flowers, which are seen from June to fall, are in cylindrical heads. After flowering, the rusty brown, boxy calyxes remain in whorls on the stem, colorful in their own right. Later, the four seeds (really a four-parted fruit) are shed as the wind bends the heads to and fro.

We have five heal-all colonies growing along our stone steps. Alas, now that I am writing this, Betty suggests that I control the size and number of colonies. They are easily transplanted; three of them will be moved. The survival of this perennial also is aided by the plant's basal offshoots that spread it quickly. While it grows anywhere, it probably does best in shady damp areas.

Like most weeds, heal-all has a number of common names: Slough-heal, heart of the earth, blue curls, Hercules woundwort, panay (a corruption of Panax, Latin for "all-healing"), brownwort, prunella, brunella, sicklewort, and thimbleweed (probably from the shape of the flowerless head). Vulgaris may be translated into English as "common", while Prunella has its origin in an old affliction of soldiers. Cole in his book **Adam in Eden** published in 1657 recorded that the German word **Brunella** is derived from Brunellen, and this is the word given to the plant that cured inflammations of the mouth. We now know the disease as quinsy. The cure was to wrap the neck in heal-all leaves.

While I doubt the value of this medicinal application, its juice has been used for centuries, externally for wounds and internally for mouth and throat ulcers, internal bleeding, piles, and diarrhea. Culpepper wrote that when added to the oil of rose, the blended juice rubbed on the temples would remove a headache. In the United States; Chippewas, Delaware and Mohegens used heal-all as a body wash, tea, and a treatment for dysentery in babies. While there are doubts about the medicinal value of the heal-all my colleague Jim Duke noted that the plant has antibiotic qualities and contains ursolic acid, an anti-tumor compound.

Margaret, we have enjoyed heal-all for years. In fact, heal-all was the first seed I collected for my fledgling seed collection. By the time I deposited my collection with the Maryland Turf and Seed Laboratory it contained over 15,000 accessions. At times like this I miss the collection.

S H O R T I A

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WINTER 1997

A QUARTERLY PUBLICATION OF THE WESTERN CAROLINA BOTANICAL CLUB

Editors: Elton J and Aline Hansens Distribution: Ruth Hoerich

Please submit contributions (articles, Letters to the Editors, notes, etc. for the next issue by January 20, 1998 to Aline Hansens, 125 Far Horizons Lane, Asheville, NC 28803.

SHORTIA
c/o Ruth Hoerich
215 Newport Road
Hendersonville, NC 28739

FIRST CLASS
