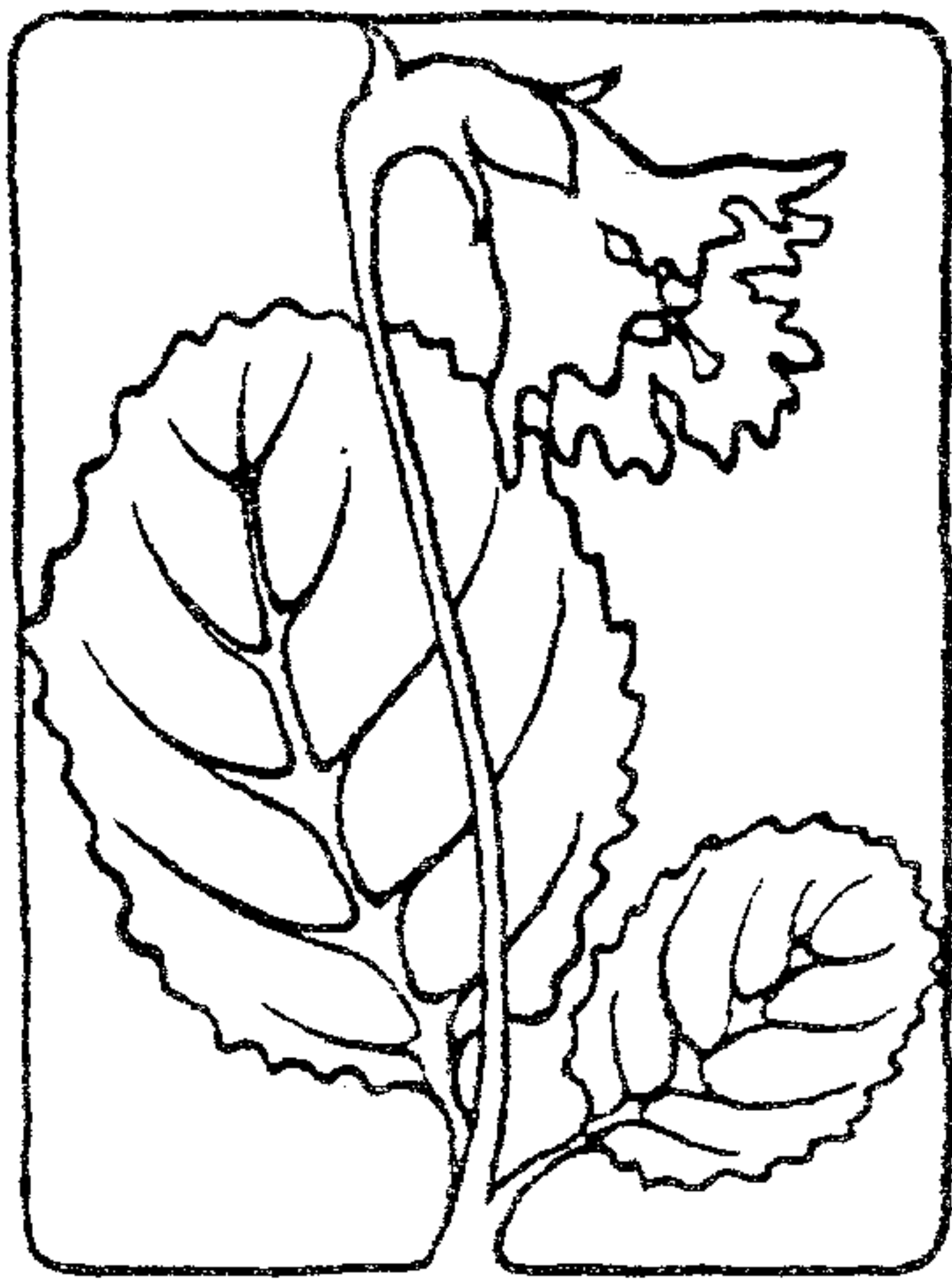


# SHORTIA

NEWSLETTER OF THE  
WESTERN CAROLINA BOTANICAL CLUB

WINTER 1985-86

*Pay dues!*



HELEN TURNER, Editor

OFFICERS

President: Elton J. Hansens      Treasurer: Margaret Kuhn  
Vice President: Millie Blaha      Historian: Louise Foresman  
Secretary: Margaret Canfield

IMPORTANT EVENT! Saturday, October 19, was beautiful and sunshiny for a happy event -- the marriage of Bruce Leech, ex-president of WCBC, and Frances Hendrix of Candler. Our very best wishes to you, Bruce and Frances. Their address is 31 Yorkshire Court, Candler NC 28715; Phone 667-1110.

At the annual meeting of The Carolina Mountain Club, the Beyond 6000 patch was awarded to Barbara Hallowell and Frances Leech. They join other WCBC members who have achieved this recognition: Philip Babcock, Ralph Chase, Tom Hallowell, Bruce Leech, Marge Little, George Oldham, Bessie Sinish and Charles Snow.

The North Carolina unit of the Bartram Trail Society was formed in 1977 after Walter McKelvey, Charles Moore (WCBC member) and Rowell Bosse, all of Brevard, located part of the route William Bartram took through Western North Carolina -- one part of the extensive explorations of the Philadelphia-born naturalist in eight southeastern states. Now an active North Carolina Bartram Trail Society, Inc., has developed and maintains a trail of 80 miles which follows much of Bartram's actual route, dramatically described in TRAVELS OF WILLIAM BARTRAM. The organization annually holds two meetings in the far western section of the state which end with a walk on the Trail. In addition to trail work, the Society commemorates the "contribution of William Bartram, first native-born naturalist-artist of the American colonies." Members of WCBC are welcome in this worthy group. Membership dues of \$5.00, individual, and \$7.00, household, can be sent to Mrs. Bonnie Arbuckle, Secy-Treas., Rt. 1, Box 71, Robbinsville, NC 28771. Sidney Holmes

HELP! HELP! The Horsepasture River needs your help. None of the money appropriated by Congress to purchase land to protect the River can be used to repay Trust for Public Land (TPL) who provided \$75,000 in option money in order to hold the Leder property while awaiting Congress' decision. We can express our thanks and repay a debt to TPL by making a tax-deductible contribution (as generous as possible) to:

TRUST FOR PUBLIC LAND (be sure to designate for Horsepasture River)  
322 Beard Street; Tallahassee FL 32303

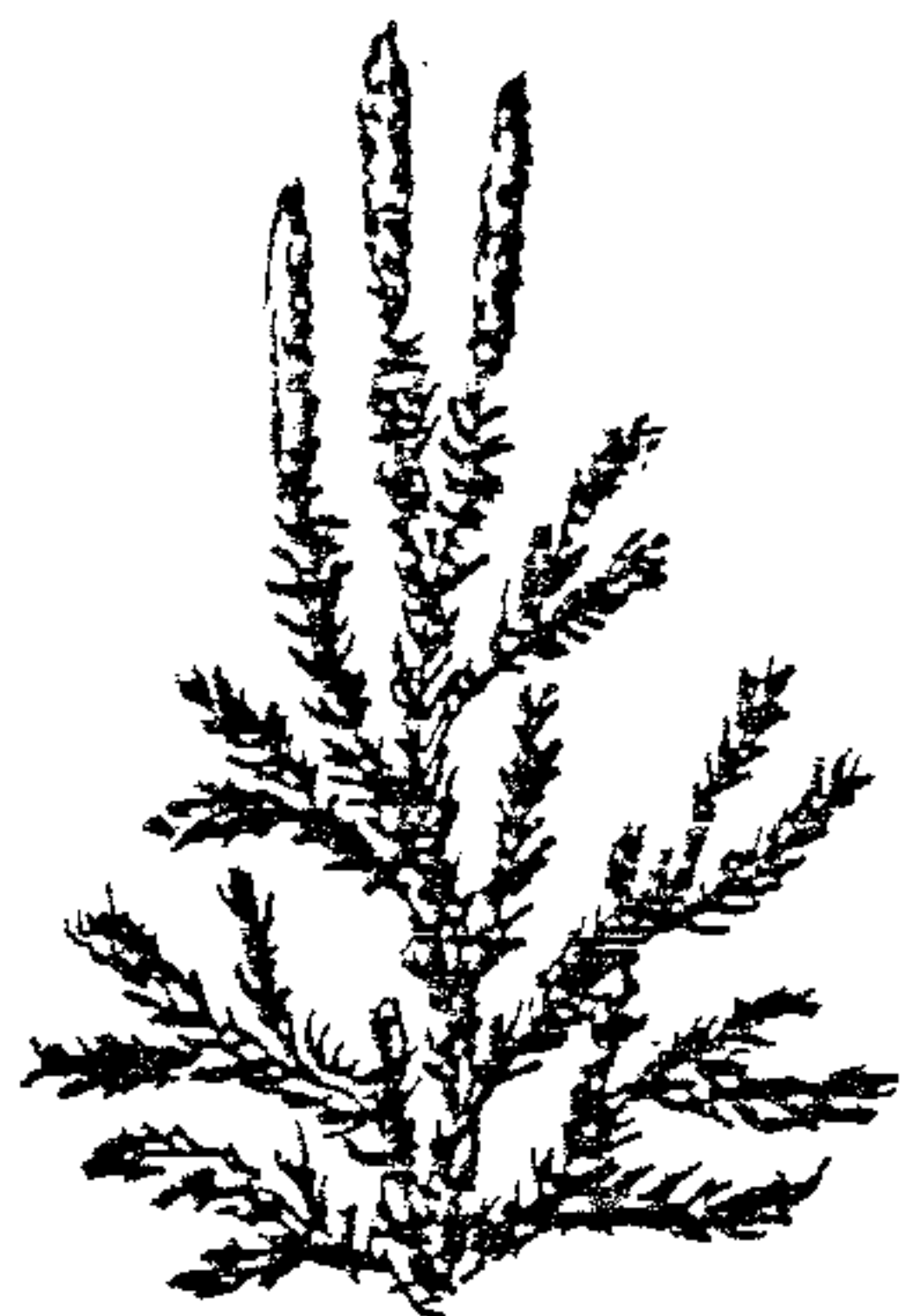
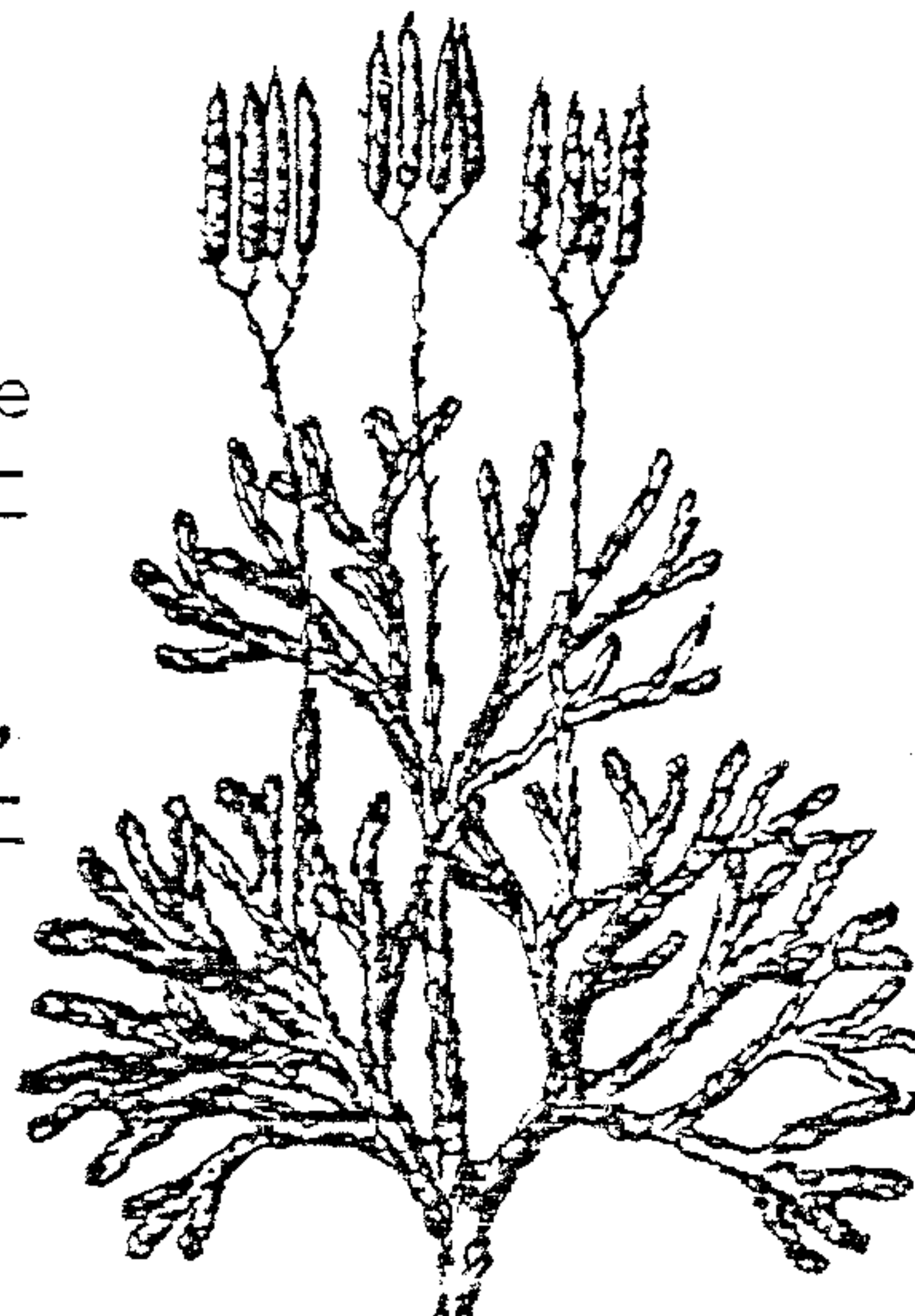
WELCOME -- NEW MEMBERS  
Hendersonville unless otherwise stated

Sawyer, Martin S. & Ruth, P.O. Box 208, 28793..... 692-1282  
Woodlock, Fred & Beth, 1300 Brevard Rd. #19 ..... 692-8370

# LOOK AGAIN!

Among the small evergreen woodland plants to be seen throughout the winter are the Clubmosses. They belong to the genus Lycopodium, and their ancestors, along with giant horsetails and ferns, were a component of the ancient forests that formed vast deposits of coal over the last 250 million years. Like the true mosses, they reproduce by means of spores; these are borne on specialized leaves called sporophylls.

In most of our species the sporophylls are yellowish and are aggregated into upright cylindric cones, or strobili, which persist long after the spores have ripened in the fall. These are especially conspicuous on Running Pine (Lycopodium flabelliforme) and Ground Cedar (L. tristachyum), where they are disposed in a candelabrum-like arrangement, usually in sets of four, above the flattened fan-shaped branches. L. flabelliforme has a straggly growth habit, a horizontal stem that creeps over the ground, and is green in color, while L. tristachyum is treelike, arises from subterranean rhizomes, and is bluish green.



L. OBSCURUM

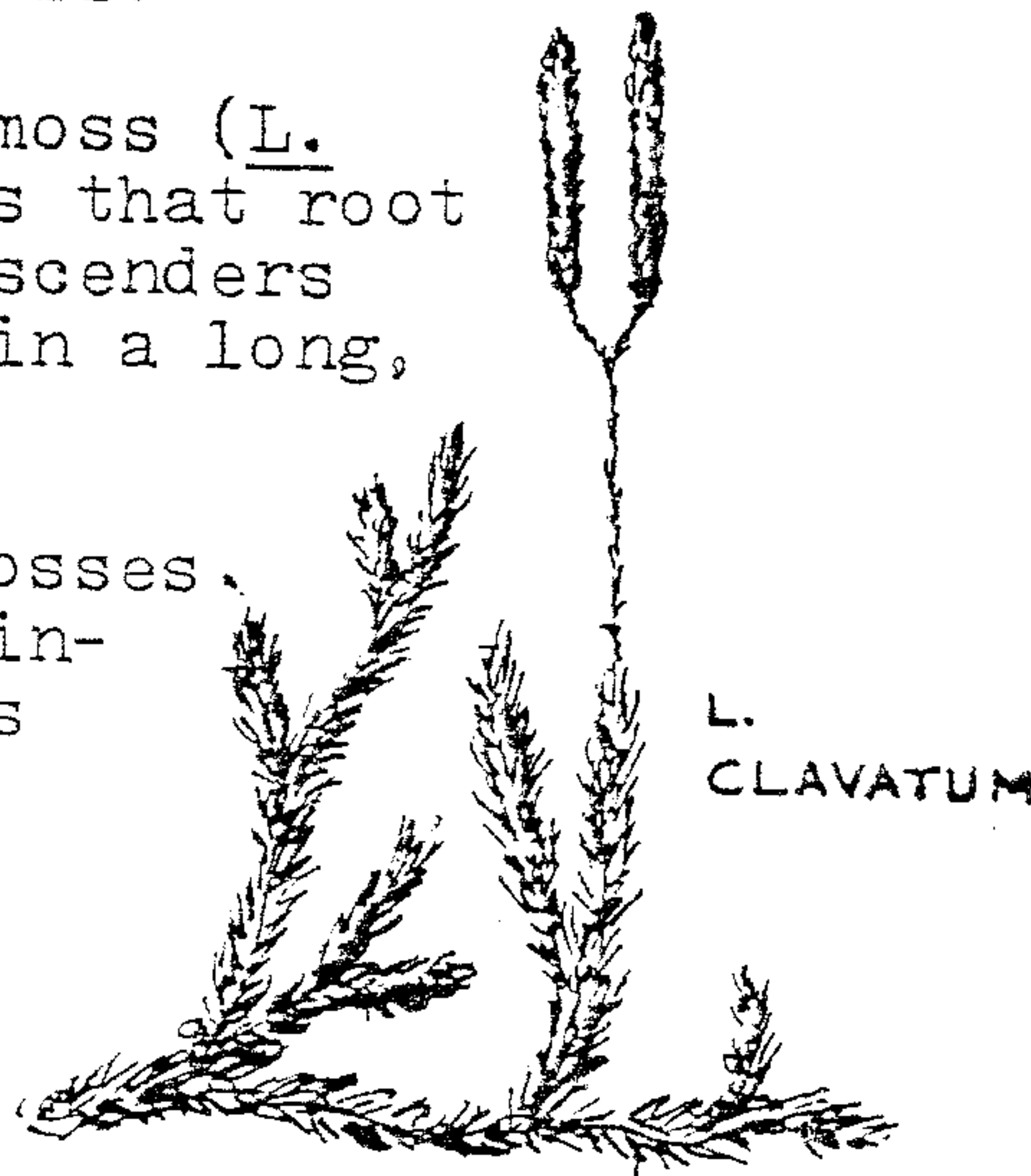
One other treelike species also has underground stems, but its branches are not flattened and the cones have no stalks. This is L. obscurum, or Tree Clubmoss.

Wolf's Claw Clubmoss (L. clavatum) has arching stems that root at intervals. The thick ascenders have several forked branches and terminate in a long, slender peduncle bearing a few strobili.

Only one of our five common Clubmosses lacks these cones, bearing its sporophylls instead in the axils of sterile leaves. It is L. lucidulum, or Shining Clubmoss, a glossy green, rather sprawling plant. Its bristly stems appear constricted here and there, marking each successive year's growth.



L. LUCIDULUM



L. CLAVATUM

Dick Smith

## STUDY OF HOLMES STATE FOREST FLORA

At the WCBC January 1985 Annual Meeting, five members volunteered to participate in a proposed Community Service Project at Holmes State Forest. Plans were that, once each week, volunteers would record the species of plants in bloom in areas selected for the study. The committee consisted of Millie Blaha, chairman, Louise Foresman, Elton Hansens, John Kuhn, and Anne Ulinski. From time to time, Cindy Carpenter, Aline Hansens, and Margaret Kuhn assisted. Three major areas were included in the study: an open meadow area which was not mowed (and where deer like to bed down); an area along Crab Creek referred to as the "brook"; and woodland along the Talking Trees Trail, plus a spur adjacent to this trail.

On Nov. 6, 1985, the committee completed 8 months of observing, weekly, the herbaceous plants, trees and shrubs, except for July 21-27 which was washed out because of rain, and Sept. 22-28 because of illness and vacationing committee members. The committee logged 460 hours at Holmes State Park. This total does not include the computer time of Anne Ulinski and the time spent by Millie Blaha preparing and typing the monthly reports, and preparation time for each Wednesday's work.

On March 5, the first day of the study, bitter cress (Cardamine hirsuta) and tag alder (Alnus serrulata) were in bloom. The peak of flowering for all areas occurred on May 10 with 73 species of herbaceous plants, trees and shrubs in bloom. The number gradually decreased to 34 at the beginning of July, then increased to 70 early in September. Woodland wildflowers reached their peak with 56 species in bloom on May 10. Spring beauties and trout-lilies not only were abundant but also bloomed over a long period of time -- from mid-March until the end of April. Springtime also was the peak of bloom for the meadow area (25 species on May 15). In contrast, summer produced the most flowering species along the brook with 37 in bloom on Sept. 11.

During the period of this study, 250 different species flowered, including 218 herbaceous plants and 32 trees and shrubs. Ferns, lichens, mosses, liverworts, grasses, fungi and lycopodiums were not studied nor were grasses (Poaceae), sedges (Cyperaceae), and rushes (Juncaceae) other than the wood rush (Luzula acuminata var. caroliniae). Except for the large-flowered trees and shrubs, no attempt was made to record the flowering of oaks, hickories, beech, etc., because of the difficulty of seeing their bloom among the treetop foliage. Despite close scrutiny, no blooms were seen on tulip trees in 1985.

The 218 herbaceous plants were in 45 families. Interestingly, a little over half were members of only 6 families -- Asteraceae, Liliaceae, Ranunculaceae, Rosaceae, Fabaceae, and Rubiaceae. One-fourth of the 218 species were Asteraceae. A member of this family, Cat's-ear (Hypochoeris radicata) bloomed for the longest period, five months. The Japanese honeysuckle (Lonicera japonica), in the Caprifoliaceae family, also bloomed for 5 months. Many of the flowers studied were very small and escape notice by most visitors to the Forest.

Although orchids did not produce an abundance of blooms, 8 species grew in various areas along the woodland trail. Most abundant were the autumn coralroot orchids. Only one putty-root orchid was found that produced seeds. The committee was distressed to find that one of two yellow lady's slipper plants was removed by some unthinking person. Only one rattlesnake plantain orchid bloomed. A number of nice stands of whorled pogonias existed but only a few plants flowered. Several showy orchis and cranefly orchids produced flowers. The most elusive of all the orchids was the three birds orchid. On one day at least 8 plants were flowering but the following week only one was in bloom.

This is a very brief summary of the 1985 Project at Holmes State Forest. A more exhaustive report will be prepared later. The study is not yet completed. These same areas will be studied until March 5, 1986 in order to complete a one-year cycle. During the winter months the committee will list plants with green leaves, and identify mosses. Plans call for continuation, even expansion, of our studies in 1986.

During the past 8 months the committee experienced warm, cold, overcast, and pleasant days and, while at work, listened to the wind, birds, and sometimes to "talking trees". The project has involved time, effort, study, dedication, and work. An extra dividend to the participants was a special kind of fellowship from working together. To be a part of this Community Service Project has been a privilege. We trust that the results and final report will be useful to Holmes State Forest and a credit to the Western Carolina Botanical Club.

Millie Blaha

#### VOLUNTEERS ENTERTAINED AT HOLMES STATE FOREST

On October 15 the North Carolina Forest Service sponsored a picnic at Holmes State Forest in appreciation of the work of volunteers at the several small state forests. A group of about 40 people (including 9 Rangers) enjoyed delicious hamburgers and all the trimmings. Certificates of Appreciation were presented to all volunteers including those from WCBC and a trail construction team from the Carolina Mountain Club as well as a few volunteers from other forests.

Volunteer help has enabled the small forests to stretch their budgets to maintain these forests and provide services to the public. This token of thanks from the Rangers was greatly appreciated.

Aline Hanses

## A MAINE EXPERIENCE

It all started in July 1984 on a trip downeast to attend an Elder-hostel program at the University of Maine at Machias on the flora of woodland, bog, and seashore. On the way I had commented on how much I would like to spend several months in Maine following the wildflower blooming through the seasons from spring to fall. Just another one of those dreams. However, the dream did, in a small way, come true as the result of a friendship which grew from our association with Dr. Alan Lewis, University botanist, who taught the course.

Alan asked me to join him this summer in a week of intensive field work hunting for plants which were not on the check list for Washington County which borders the St. Croix River and New Brunswick, Canada. Each day we worked a different area which included river banks, logged over paper company lands, woodland bogs, heaths, and the seashore. We collected almost a hundred plants with the help of a botany student who did the cleaning and pressing of the plants for the herbarium. Some 25 were new to Washington Co. Perhaps more will be added as we work separately keying out specimens for verification to add to the list.

It is interesting that the flora of northeastern Maine exists in a transition zone very much like that of the Carolinas, in that many plants reach their northern limits while those of the far north their southern limits there. Here we have the intermingling of many northern species with those of the deep south.

The upland bogs are interesting in that they are raised above the normal level of the surrounding land. They are very wet, and contain sphagnum, cranberry, pitcher plant, leather leaf, assorted bog orchids very much as do the glacial ponds which have become overgrown with typical bog plants.

Along the stony beaches we found oysterleaf bluebell, Mertensia maritima, which has small blue flowers similar to Mertensia virginiana but the plant is prostrate and has soft whitish leaves. A few of the other beach plants included sea lavender, Limonium nashii; sea-milkwort, Glaux maritima; glasswort, Salicornia sp.; sea blite, Sueda maritima.

Along logging roads in some of the vast paper company holdings were other less familiar plants including eye bright, Euphrasia sp.; tarweed, Madia sativa; pineweed, Hypericum gentianoides; Hemp-nettle, Galeopsis tetrahit alba and G. tetrahit bifida. Tiny, tart cranberries, Vaccinium oxycoccus ovalifolium, grew in huge patches.

The middle of August is the height of the blueberry season in Maine where the dwarf bushes grow on thousands of acres in treeless barrens. Harriet picked enough with a special blueberry rake to last us through the winter.

Our "Maine experience" was a delightfully memorable experience.  
Ivan J. Kuster

GREETINGS FROM THE BOTANICAL GARDENS AT ASHEVILLE

Annual Awards Dinner -- November 9th

We were glad to see several from WCBC among the 95 guests at the dinner held at Holiday Inn West. Dr. Richard Weaver, formerly with Arnold Arboretum, gave a most interesting slide presentation, "Plant Hunting Around the World", combining just the right amount of technical data with lighter accounts of his experiences. He is now a partner at We-Du Nurseries in Marion and invites all to inspect his extensive wildflower offerings.

At the dinner, President Harold Gehm gave eleven Trillium Pins and certificates to conscientious workers at the Botany Center and Gardens. Nine Presidential Awards were given to those who have received Trillium Awards previously and who have continued to donate their time to the Gardens.

Board of Directors Meeting -- November 10th

At this meeting, the following officers were elected for 1986:

President	Libbie Robbie	Secretary	Jim Perry
President-Elect	Bob Gray	Corresponding Secretary	Anne Coxe
Vice President	Arch Nichols	Treasurer	Ray Joiner
	Manager	Jim Crownover	

Another purpose of the meeting was to discuss Doan Ogden's proposed bequest to the Asheville Council of Garden Clubs of his home and 9-acre garden estate. His will now leaves it to the City of Asheville but he feels that a better and more permanent disposition would be to the ACCG. Each of the 22 organizations in the Council has been asked to poll its members, and Bob Kemp has been appointed to acquaint each Club with details of the proposal. There are pros and cons to the arrangement and much discussion has ensued. The Board of the Botanical Gardens voted 10 to 6 in favor, but the ACCG on November 13th had an inconclusive vote and another vote will be taken in March.

On display at the Board Meeting was the beautiful quilt which will be raffled at the Day in the Gardens next May 3rd, at 3:00 PM. The quilt was designed by Bob Kemp and made by the Beaucatcher Quilters. Two other quilts have been raffled in the past two years and have produced a sizeable increase in the Gardens' treasury.

Poinsettia Sale

Each year the Mountain Gardeners arranges a poinsettia sale for benefit of the Gardens and orders are being taken for delivery at the Botany Center on Saturday, November 30. Extra plants will be ordered, so you may still be able to receive a very fine plant at a reasonable price. Call Bob Gray at 684-5113 or the Botany Center at 252-5190.

Winter Hours at the Botany Center

After all poinsettias are sold, the Botany Center will close (except for meetings) for the remainder of December, January and February. The grounds will be open from dawn to dusk as usual; right now is a good time to see the Witch-hazel trees in bloom.

Annual Meeting -- Sunday Afternoon, January 26, 1986

Included will be election of the Board of Directors, by the Membership. Dick Smith will continue as a Director through 1987; perhaps WCBC would like to propose another member, say from Hendersonville, for 1986-88. If you know of someone who can be active, and serve on a committee, please call Libbie Robbie at 253-4299.

Elderhostel Course Opportunities in Botany

50 schools, from Florida to Alaska and Hawaii to Maine, are offering Elderhostel courses in botany for February through May. Intriguing titles include "Springtime in the Redwoods", "Flora Along the Bartram Trail in Georgia", "From Xeric Bluffs to Cypress Swamps", "Plants of the Blue Ridge" and 46 others. Locations are as close as Junaluska and Highlands. The only requirement is that individuals, or one of a couple, be 60 or over. For a schedule catalog, write Elderhostel, Inc., 80 Boylston Street, Boston, MA 02116. (Each course is for one week).

  
Hal Schail

## RAMBLINGS -- PEOPLE, PLANTS AND PLACES

Three months includes the very beginning of August -- are you all able to think back that far? the FERN WORKSHOP AND WALK was cancelled since the leader was not able to return from a trip in time. FRYING PAN GAP is always a favorite trip -- we botanize so carefully on the prolific Parkway slopes that the Gap itself seems to be somehow secondary, though we see many flowers in the meadow and on up the road -- 25 of us identified some 63 wildflowers. Special flowers await us in the KANUGA CONFERENCE area -- up Long John trail we looked for and found 3-bird orchids and pink corydalis which we seldom see. One just has to mention TRESTLE GAP when a flood of memories slips out -- the Balsam Bald itself with its spectacular views and its grasses waving in the breeze, is a real joy; or the road with its sundews and other plants along the way. We all settle on the big rocks for our lunches amid the flight and crying of the eagles being fed on top of Tenent Mt. nearby. This time we saw bright raingear all over the hills as we all took part in the "rite of blueberry picking" -- a memorable trip in the drizzly weather -- 18 persons along and some 25 flowers seen. BUCK SPRINGS TRAIL is a special one to us all now since Dick Smith and Elton Hansens, in cooperation with the National Park staff, have been transforming it into a nature trail along which flowers, shrubs and trees will be labeled -- 23 person enjoyed a sunny morning there and along the Parkway -- 33 flowers identified. The URBAN NATURE WALK drew 9 interested people who toured several small nurseries including Holbrook Farm where Allen Bush acquainted them with his expanded nursery area.

Another very favorite event, the COVERED-DISH at HOLMES STATE FOREST -- our folks like to eat! -- the long upper trail and the short one were hiked by many and 42 persons enjoyed the comradeship of sharing a meal. PARKWAY 276-SOUTH TO RICHLAND BALSAM was, as billed, a goldenrod seminar, revived by Harvey Krouse, who came from 100 miles east to be our leader -- he and Verna were warmly welcomed. The COVE CREEK-GREEN RIVER area is new to some -- a lovely walk along the creek, having first negotiated the numerous hairpin curves and hilly terrain down to the trail-head -- 16 of us lunched on the rocks at the junction of the creek and the river. Dick Smith took us to OLD BALD -- a grey day, fog hanging thick and low on the mountains and in the valley, all clearing to a beautiful, sunny day by noon -- 15 of us hiked to the top of the bald where the views were great and the blueberry picking surprisingly ample. HORSEPASTURE RIVER (Well! What happened to the large white sign on the left side of the road that had always been a guide to Whitewater Falls? Some of us went up and down the highway and as far as Highlands and never found it!) -- 22 of us seemed to get somewhat lost but all made it to the, so far unimproved, trail -- it was lovely along the rushing river with its beautiful falls. Now we know why this river must be preserved. On to South Carolina, Keowee-Toxaway State Park, where we stopped briefly and viewed a film at the Museum. An indoor meeting at which Charles Larus showed slides on the FLORA OF JAPAN in out-of-the-way areas there was most interesting to the 25 persons present.



GREEN COVE, where we bask in the hospitality of Calla and Frank Bell, was again a memorable trip -- welcome to their home, a lovely hike -- some 44 flowers noted along the way. This time, delicious "Bell Burgers" and, after lunch, a bus ride for all and a jeep ride for a few to the top of Corbin Mt. and a climb to the top of the fire tower -- a great day! Thanks, again, Frank and Calla. Ten of us plus 3 of the Forestry staff viewed their interesting film on forest management in the East -- PISGAH FOREST FORESTRY FIELD STUDY. Then, we settled ourselves in two Forest Service vans and toured many of the back roads -- as we rode, the staff shared with us the clear-cutting policies in the Eastern forests and pointed out examples to illustrate their methods. The COURT HOUSE CREEK area was new to some of us -- 14 enjoyed the lovely forest country and two beautiful Falls as well as the tumbling creek -- had our lunch at the base of a 40-50 foot Falls -- we drove up further before we parked and thus did not hike the 7-8 miles indicated in the schedule. The COVE CREEK-CANEY BOTTOM hike with Barbara Hallowell as leader had to be cancelled because of heavy rains. An indoor meeting drew 54 people to hear Jeanne Holgate on the ADVENTURES OF A BOTANICAL ARTIST -- an internationally famous botanical artist, she showed slides and a film made in the field as she travelled the States. We've been fortunate to have her as a member of our group and now that she is returning to England to stay, we all wish her well.

Louise Foresman

#### ADVANCE NOTICE --- 1986 SCHEDULE

The Program Committee is working on the February-July 1986 schedule. Please help if you can when asked to lead a hike or indoor program.

Three special events are being scheduled:

March 19-21 -- Calloway Gardens. Harry Logan is organizing this trip.

April 23-24 -- Snowbird Lodge, Kilmer Forest and vicinity. Arrangements are complete. Call Elton Hansens for details. A one night stay is possible; 2 nights will be at a discount.

June 11-13 -- Green Swamp, Carolina Bays and/or other stops. Elton Hansens is making arrangements.

All of the above should be banner events you will not want to miss.

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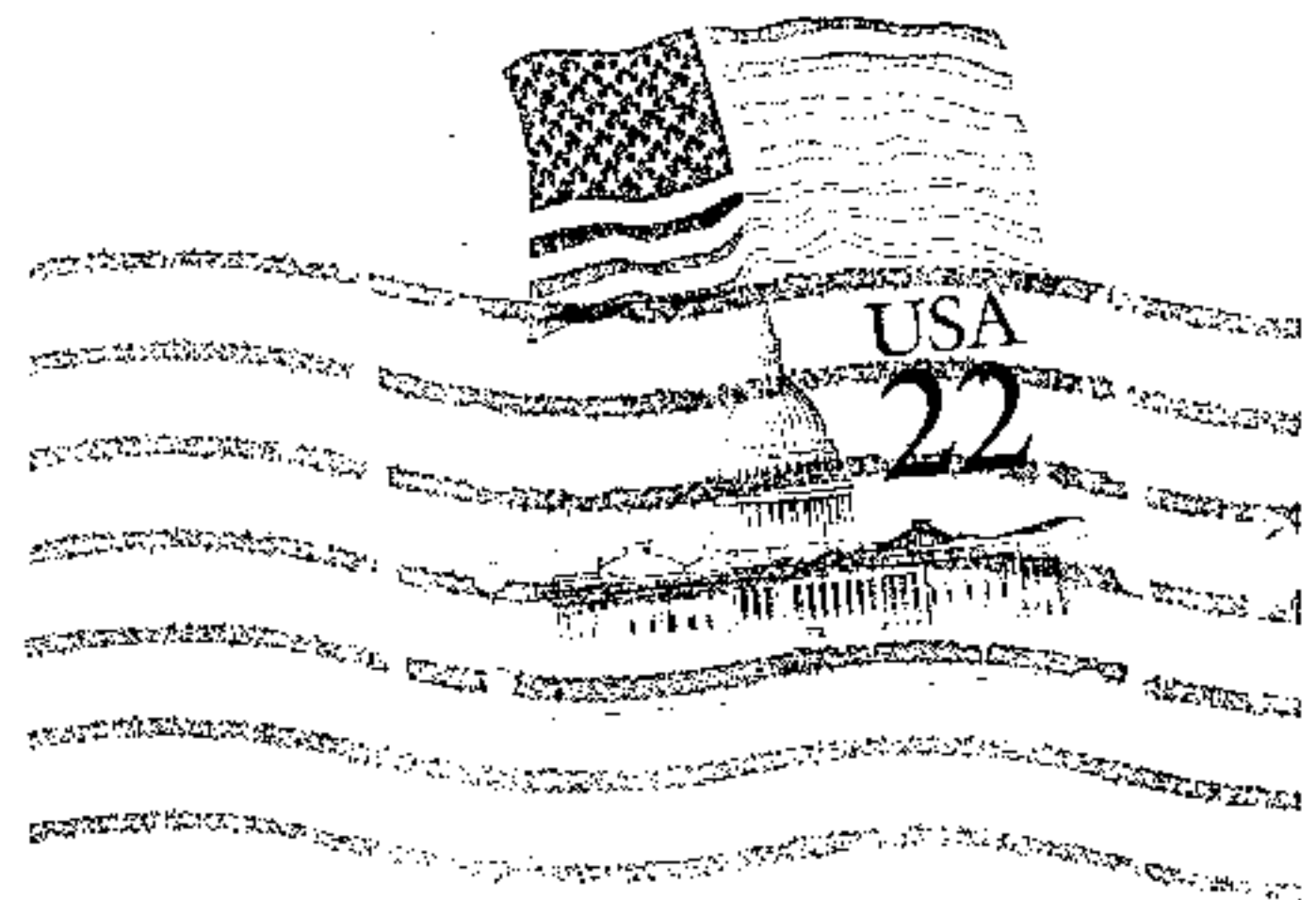
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Please submit contributions for next issue by February 15, 1986

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