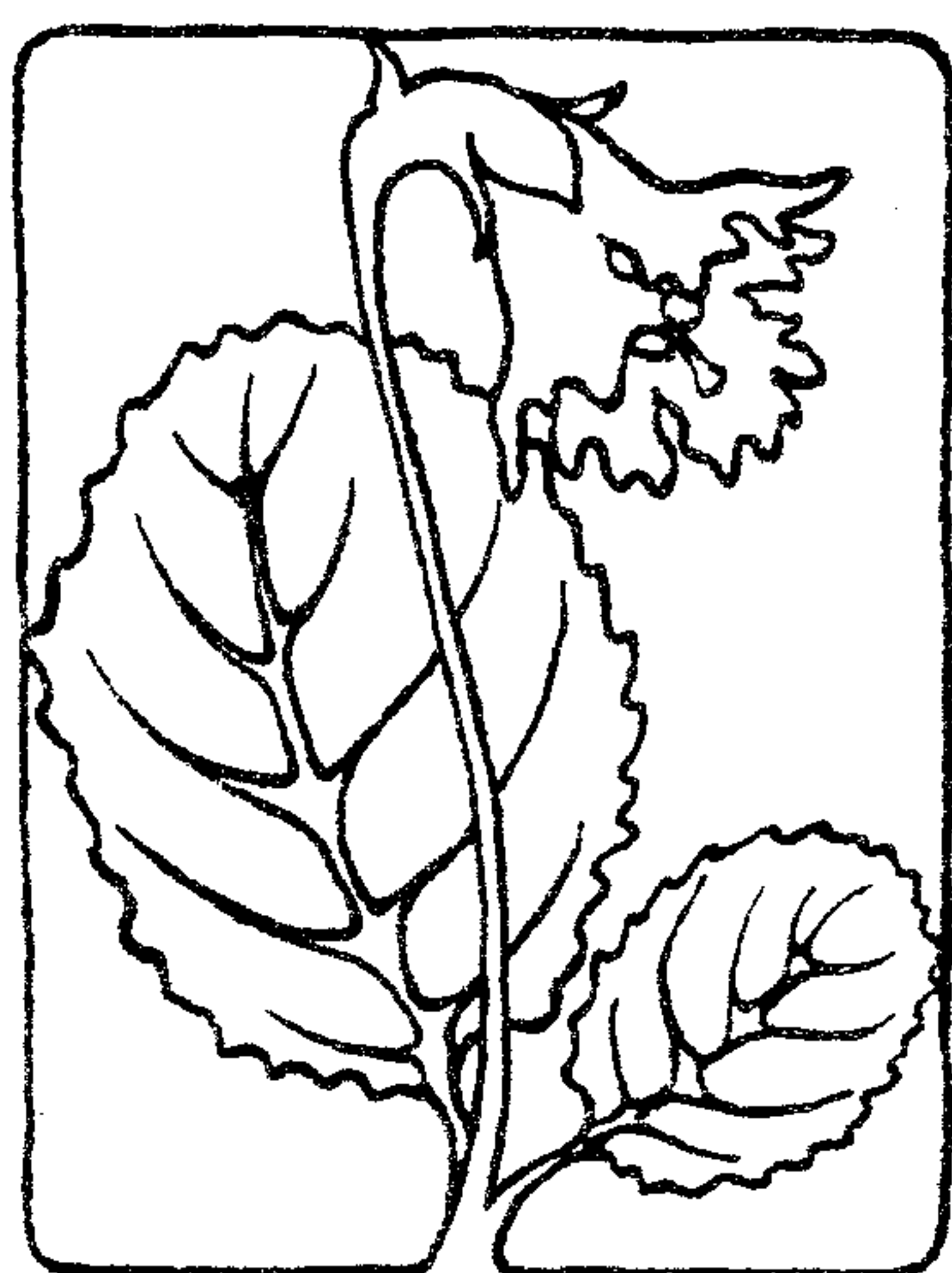


SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

SPRING 1983



HELEN TURNER, Editor

A NOTE FROM THE PRESIDENT

One cannot approach the presidency of any organization without a heightened awareness of the credentials of those who have gone before. The most recent incumbent, August Kehr, brought to the post not only a wealth of knowledge but an enviable record of professional accomplishment.

Thanks to his expertise and leadership the Western Carolina Botanical Club has added two more proud years to its own record of steady progress, and in so doing has raised still higher the standard by which his successors' contributions will be judged.

The collective voice of our members is a small one beside the acclaim that August Kehr has already received from his peers, but it speaks both our gratitude and the hope that our cordial association will continue for a long time to come.

Dick Smith

NEW OFFICERS

At the Annual Meeting on January 28, the following were elected and installed to serve for this year:

President:	Dick Smith	Treasurer:	Margaret Kuhn
Vice President:	Sam Childs	Historian:	Louise Foresman
Secretary:	Margaret Canfield		

SECOND WIND AWARD

Dear Friends: How can I find words to thank you for the great honor you have given me in choosing me to receive the Second Wind Hall of Fame award at the Annual Meeting? I am overwhelmed!

It is heart warming to be reminded of some achievements during my more active retirement years: projects at The Morton Arboretum in Lisle, Ill.; the establishment of the Illinois Prairie Path; and more recently at Carolina Village and with the Western Carolina Botanical Club.

Thank you, too, for the pages of signatures and messages you wrote for me at the time of the presentation. With deep appreciation,

Helen Turner

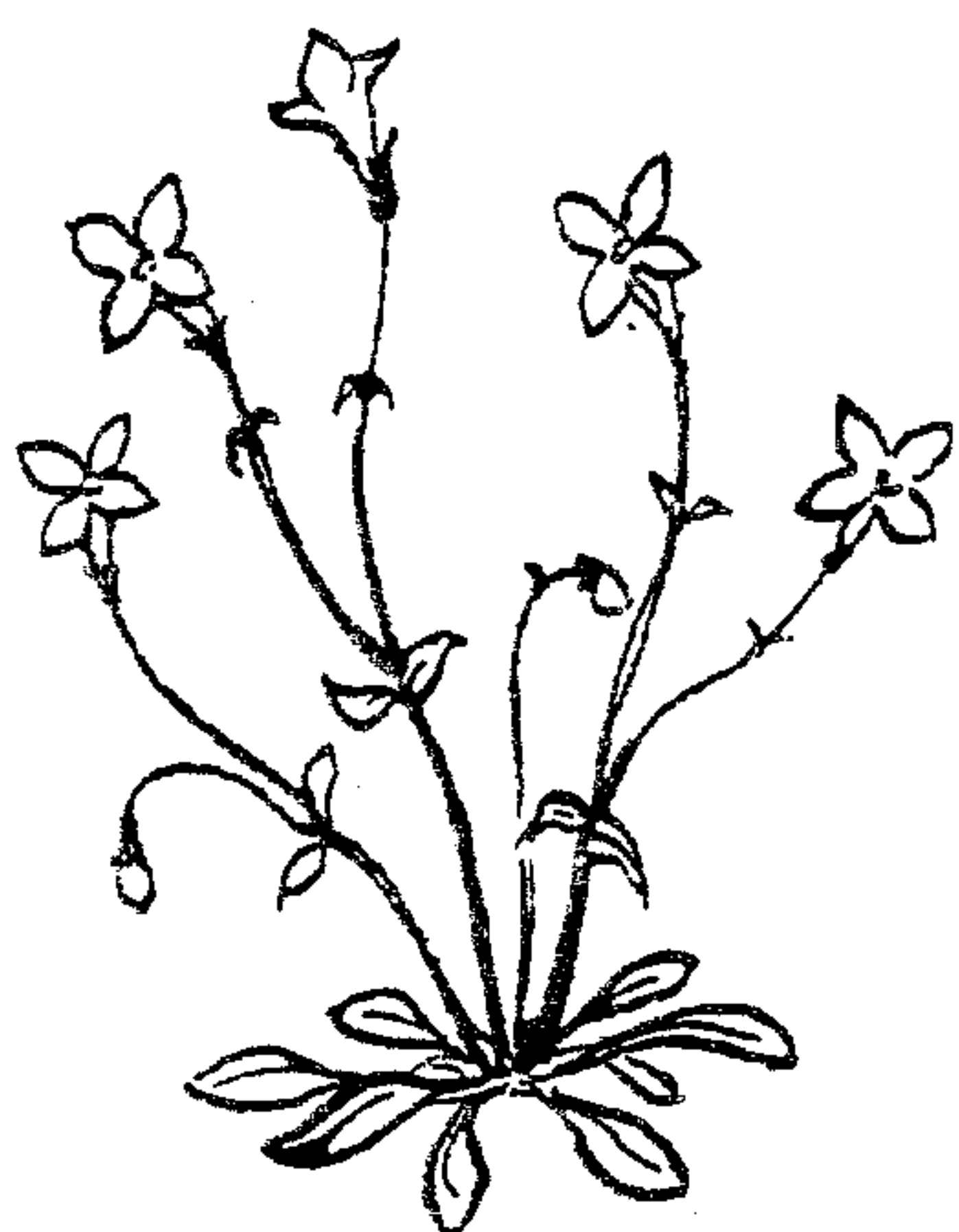
NEWS OF MEMBERS

Ken Sinish has three black and white photographs in the South-eastern Photography Exhibition at the Greenville County Museum of Art.

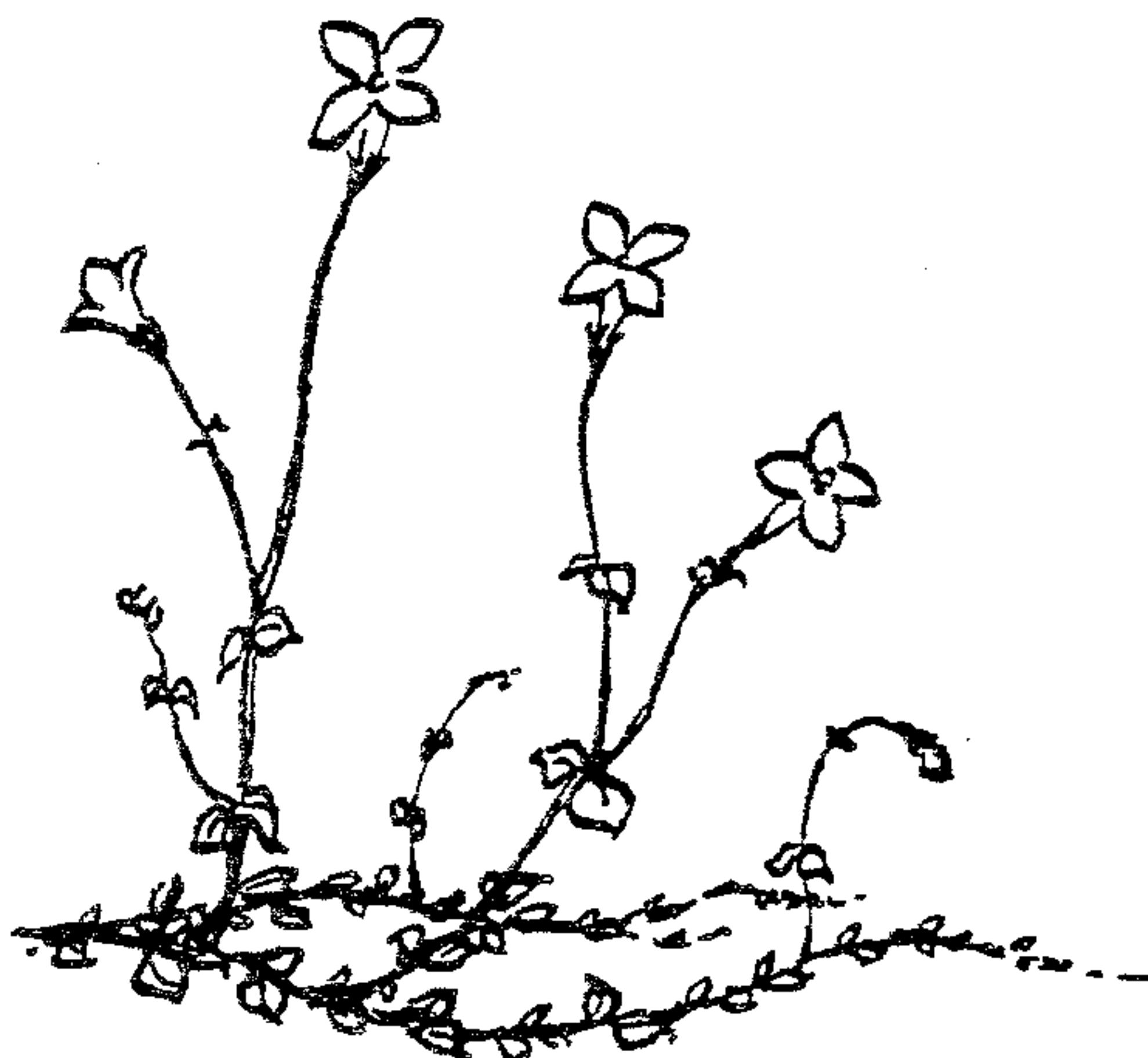
LOOK AGAIN !

Enjoying the sight of a field strewn with bluets, one's thoughts are not likely to run to questions of floral anatomy and scientific names. It is only when the individual plants are seen closely that the existence of different kinds stirs our curiosity.

Actually, our only bluets which form carpets of flowers in wet grassy areas are Houstonia caerulea and H. serpyllifolia. The tiny four-petaled salverform flowers are virtually identical - soft pale blue shading to white at the open center, which is ringed by a golden eight-rayed miniature sun. H. serpyllifolia is said to be darker in color, but since both species produce white forms and all the intermediate tints as well, that is of little help.



H. caerulea



H. serpyllifolia

Where they differ markedly is in their growth habit, H. caerulea having erect stems branching from the base, while those of H. serpyllifolia are prostrate and root at the nodes. (The specific name of the latter is from serpyllum, an old generic name for thyme, and this in turn is derived from the Latin serpere, meaning "to creep"). Also, the lower leaves of H. caerulea are long-petioled and spatulate; in H. serpyllifolia they have short stalks and are more nearly round.

A bluet of drier habitats is Houstonia pusilla - sometimes called "star violet." This might pass for a small version of H. caerulea, with flowers only half the size, but the corolla is violet and the markings in the throat are reddish-purple instead of yellow.

Dick Smith

RAMBLINGS -- PEOPLE, PLANTS AND PLACES

From the first hike in December through the second one in February 1983, we had an average of 45 persons per hike or indoor meeting -- the greatest number, 76, came to the covered dish annual luncheon meeting -- the fewest, 14, made the trip up Big Glassy Mt. Two lovely area hikes in November, Daniel Creek and Cove Creek, were cancelled due to heavy rain.

The trip to VANWINGERDEN'S GREENHOUSES was enjoyed by 48 persons -- as usual at this time of year, acres of poinsettias and African violets were in full bloom and many foliage plants were at their peak. On a very damp, cold day 14 of us braved the elements and hiked around the lake and up to the top of BIG GLASSY MT., Connemara Farms -- it was quite comfortable climbing up through the quietness of the forest but it was so windy on top we stayed for only a few moments -- the view lovely as always. The return trail led us to a sheltered outcropping of large rocks in the sun where we ate lunch.

We started the new year with an interesting trip to the BENT CREEK FOREST EXPERIMENTAL STATION -- few of us had realized that the facility is so well established or what its purpose is -- 38 persons heard Carol Young, a member of the staff, explain with the help of slides, the research being done in evaluating pine seedlings for resistance to Fusarium rust which attacks this important forest crop with oaks as an intermediate host. Another biological technician, Jim Triplett, guided us through the greenhouses where the testing is being done. From there we hiked around nearby LAKE POWHATAN -- a pleasant trip on a warm sunny day.

On another beautiful day, 45 of us gathered at the OWENS ORCHID GREENHOUSES off highway 64W on the way to Brevard. Mrs. Joyce Owens, owner, described the propagation and care of orchids and showed us the two major species they grow: the Cattleya which we usually think of as a corsage flower, and the Phalaenopsis which develops numbers of small flowers at the end of a long, curved stem. She permitted us to wander as we pleased and invited us to come back (singly, with guests, or as a group) to enjoy the blooms.

The indoor meeting on January 21 was cancelled because of a snow storm. But the turnout for the ANNUAL LUNCHEON MEETING on the 28th surprised everyone as 76 persons arrived to take part. Again, the tables looked festive, the food was delicious and the companionship was great. The meeting was animated, interesting and not too long, highlighted by election of officers. All were sorry that Helen Turner, due to illness, could not receive her SECOND WIND HALL OF FAME AWARD in person -- Dorothy Rathmann accepted it for her after an interesting presentation by Sam Childs.

The February 4th meeting at Carolina Village was a lovely look at the progression toward Spring with its profusion of wildflowers. Millie Blaha made fluid and pertinent comments on the beautiful slides. George had taken the closeups and manned the projector. This mid-Winter treat was enjoyed by 54 persons. But the next indoor meeting on the 11th was cancelled due to a snowstorm

Louise Foresman

GYPSY MOTH (PORTHETRIA DISPAR)

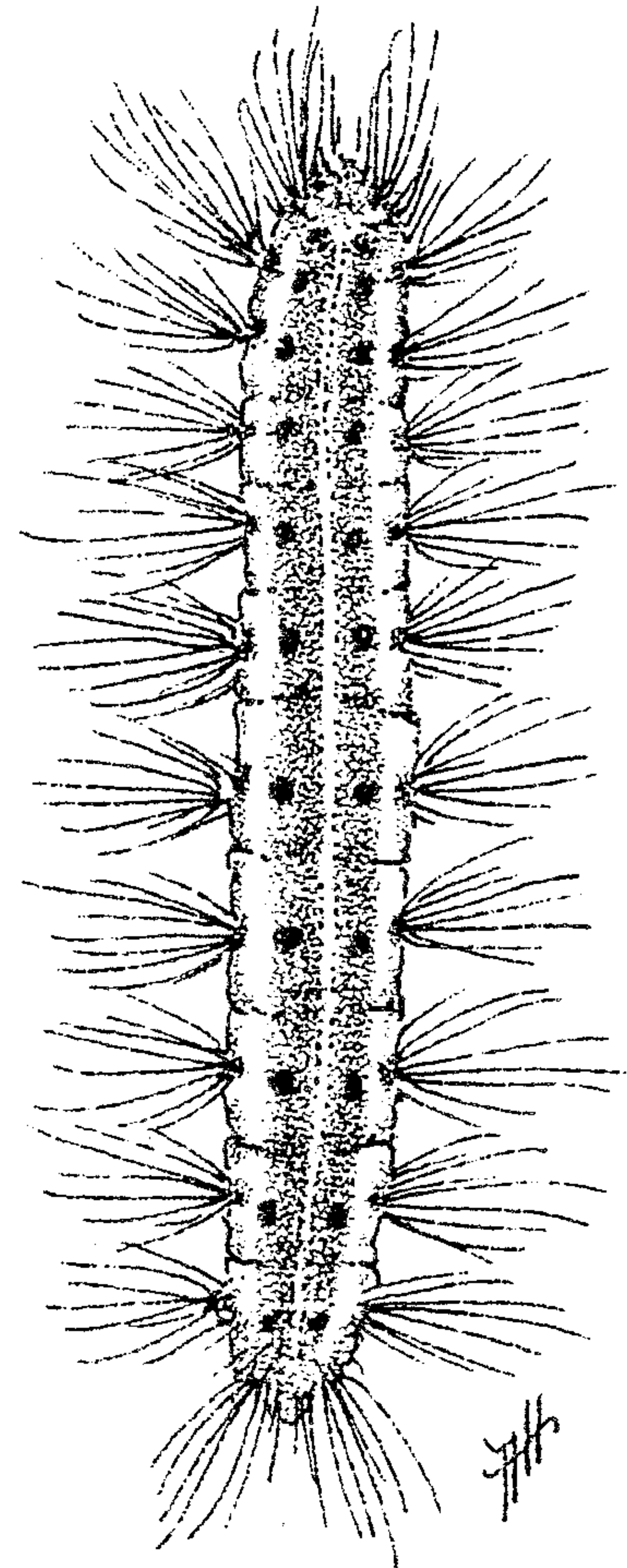
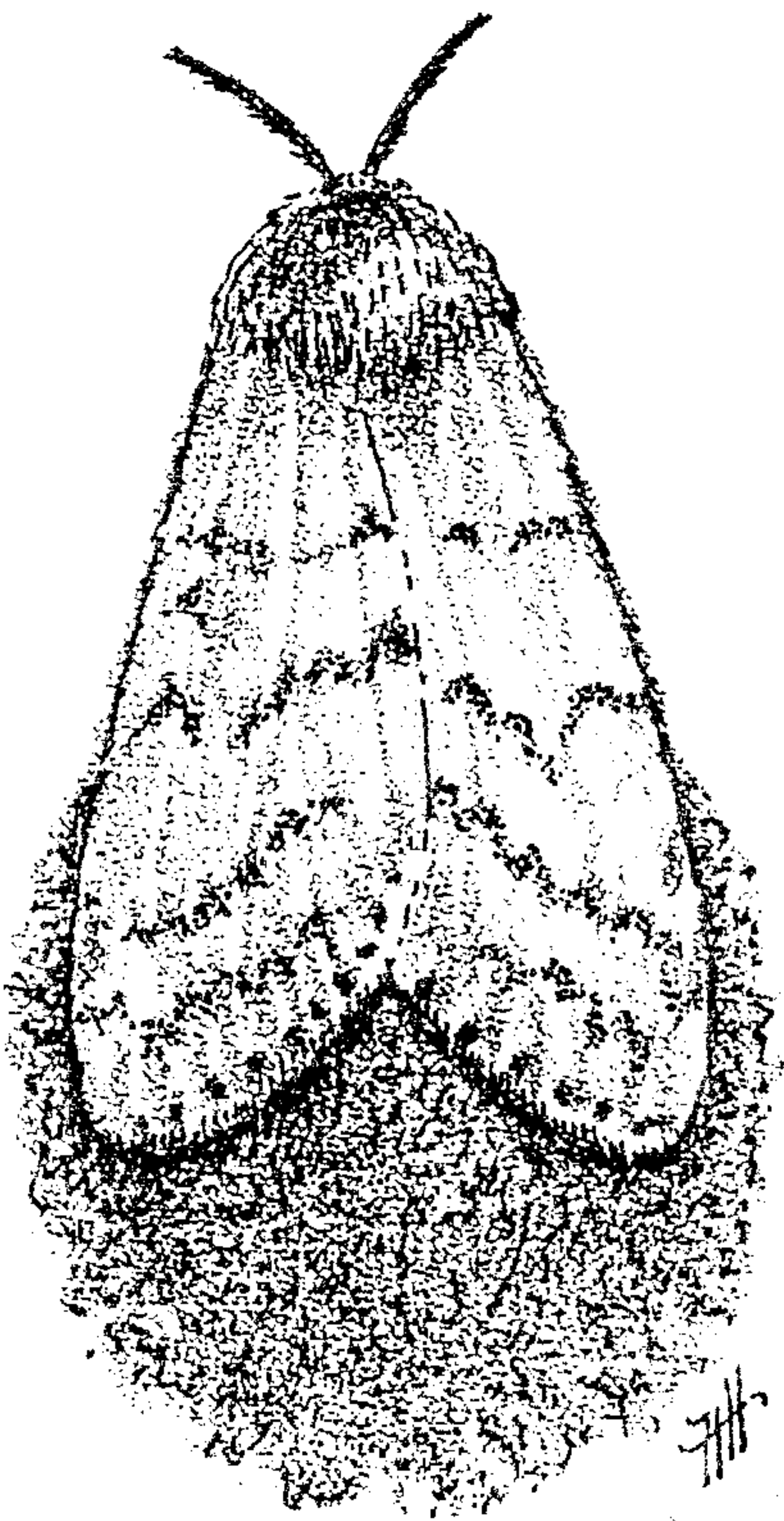
Gypsy moths have long been important forest pests in the north-eastern states and more recently they have extended their range westward and southward. Large infestations now exist in Pennsylvania and Virginia. Spot infestations have been found in North Carolina but not in our area. Gypsy moths are so important because they attack many different forest trees. They are especially damaging where trees of the white oak group predominate. Older caterpillars may feed on softwood trees such as pine, hemlock and spruce. Yellow poplar, dogwood, locust and red cedar are among the trees less commonly attacked.

Let us look briefly at the life history and habits of the pest. Female moths deposit masses of 500 or more eggs on trees, buildings, wood piles, tents, recreation vehicles, etc. The buff colored egg masses are 1 to 1½ inches long and about ½ inch wide. Eggs are deposited in June and remain until they hatch the following April or May. The newly hatched caterpillars, blackish in color and about 1/16" long, move to the tops of trees. They disperse when they drop on silken threads and are carried by the wind, often several miles. Second and third stage caterpillars

are mostly black but have orange markings down their backs. Late stage caterpillars are hairy, brown or black and from 1½ to 2½ inches long. Beginning at the head, they have 5 pairs of blue spots followed by 6 pairs of red spots.

Of the foliage that is destroyed, the last stage caterpillar does about 70% of the damage. Heavy defoliation results in damage to plants on the forest floor that need shade to exist. Mature larvae pupate in June-July attached to all types of objects and hence they are easily transported long distances, particularly on recreational vehicles that were in infested areas long enough for caterpillars to pupate or females to lay eggs. After a pupal stage of 10 to 17 days, males and females emerge. Male moths are light tan to brown with dark wavy bands on the front wings. They are excellent flyers whereas the larger and heavier females do not fly.

Females are mostly white with faint brown or black bands and V



markings on the wings. Moths die soon after mating and egg laying. Gypsy moth has but one generation each year.

In North Carolina only a few spot infestations of gypsy moth have been detected and these have been dealt with promptly. Of concern to us is the continuing southward march of the pest and outbreaks as far south as Richmond and Norfolk, Va. Even though the gypsy moth was introduced into Massachusetts in 1869 as a possible producer of silk, only recently has it expanded into large new areas. In 1982 an estimated 8.1 million acres were defoliated. Further, one authority stated that in 1979, '81 and '82 defoliation equalled one third to one half of the total acres defoliated in all previous years combined.

The success of the gypsy moth is influenced greatly by the weather and their natural enemies---birds, insect parasites and predators, bacterial and viral diseases. Most years a high proportion of the caterpillars never reach maturity and the forest can withstand the moderate amount of defoliation. Most spraying with insecticides and disease agents has been done in urban areas rather than in large forest tracts.

Where spot infestations are sporadic as in North Carolina, concerned agencies work cooperatively in detection of gypsy moth and in elimination of the small infestations that have been found. Detection is accomplished by placing highly effective pheromone traps at suitable distances to attract and catch males. These traps are used to spot new areas and, in greater concentration, to measure the effectiveness of controls. So far local problems found before 1981 have been eliminated and the more recently recognized outbreaks are under control. These are being watched closely to be sure the pest is gone. One new area was found in 1982 when 20,000 pheromone traps on a four mile grid were monitored.

Hopefully gypsy moth will never become a really serious pest in North Carolina and that natural forces will help restrain even low level infestations.

Elton Hansens
Aline Hansens (illus.)

I VISIT DEAD PLANTS

In an article with this title, May Theilgaard Watts, late Naturalist Emeritus of the Morton Arboretum in Lisle, Illinois, wrote:

"A juiceless, brittle, flattened plant that has not felt wind or rain or sun for 141 years may, on being extracted from its place in an arid row of steel herbarium cabinets, suddenly come alive in the hands of a botanist -- if that botanist knows that it was collected in the rain, beside a violent cascade, by a doughty explorer who had been sent out by a famous president and that it had been named three times and crossed the ocean twice. This was the story, in part, of the particular herbarium sheet that started me on the pleasant diversion of visiting dead plants.

The herbarium sheet showed the leaves and a few flowers, and bore a description and an account of the place where it had been collected written by Meriwether Lewis in slender slanted script, using the old-fashioned s that looks like an f. 'Rich soil among rocks, Grand rapids of Columbia, April 11, 1806,' it said. He named it 'Lewisia ilicifolia,' adding 'new genus,' perhaps with a feeling of satisfaction at having found a new genus, certainly with a feeling of contentment that his shrub with the shining decorative foliage, and the great golden clusters of bloom, and the blue fruits, would carry his name.....

It was [a] 'mountain holley' that Lewis chose to carry his name. But the botanists decreed otherwise. This was no new genus, they proclaimed; it must be put into the barberry genus where it obviously belonged. So it was given the name Berberis aquifolium by the botanist Frederick Pursh..... [He] carried the herbarium specimen off to England where, with some 700-1000 other specimens, it came into the possession of his patron, Sir Aylmour Bourke Lambert. After Lambert's death in 1842, his library and his celebrated herbarium were sold at auction. A benefactor purchased this sheet, with others, and sent it to the museum in Philadelphia.

But meanwhile, the botanists had polished their lenses and taken another look at Lewis's plant, and declared it a new genus after all. This time (in 1818) it was given a name honoring Bernard McMahon, a Philadelphia nurseryman who had received and grown many of the plants from the Lewis and Clark expedition and who had supplied many plants for Jefferson's Monticello. Mahonia is now its name

[At] the Gray Herbarium of Harvard University, I was shown a sheet containing a specimen that startled the paleobotanists. It was the dawn redwood, Metasequoia glyptostroboides. This sheet was from the Herbarium of the Forestry Department of the Agricultural College at the National Central University in Nanking. It had been collected at Wanhsien in northwest Szechuan Province on February 20, 1946.

The dawn redwood, according to paleobotanist Ralph W. Chaney, appears as a fossil more often than any other conifer. It must once have been widespread and abundant, but it became extinct about fifteen million years ago, from both Europe and America. The fossil record showed it surviving for a time in Japan.

One day, in 1946, a Chinese forester laid a green branch of this supposedly-extinct tree on the desk of one of his country's leading botanists.

In the remote forest where it was found, its companions were such other ancients as oaks, birches, chestnuts, katsura trees, ginkgos. Seeds were soon sent out to botanical gardens and arboretums around the world, where dawn redwoods are growing now. Against the east wall of the Sterling Morton Library, in the reading garden, is a dawn redwood; on the opposite side of the door grows a ginkgo. To make the reunion complete, a dinosaur should walk out through that door."

---Excerpted with permission from THE MORTON ARBORETUM QUARTERLY
Vol. 3, No. 1 (Spring 1967).

S H O R T I A

Vol. V

No. 1

A quarterly publication of the Western Carolina Botanical Club

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Production Committee: Dorothy Rathmann, Bruce & Blanche Leech

Please submit contribution for next issue by May 15.

A REMINDER: Annual dues for 1983 are now due: Single membership \$3.00;
Family membership \$4.00. Pay to Margaret Kuhn, Treasurer
1912 Arlington Place
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