

NORTH CAROLINA *wild flower* PRESERVATION SOCIETY, INC.



FALL 1982

NORTH CAROLINA WILD FLOWER PRESERVATION SOCIETY, INCORPORATED

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Cover drawing and illustrations are by
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PRESIDENT'S MESSAGE

by
Tom Howard

The fall season can be a time of reflection, a time to assess past actions and plan for the future. As members of the Wildflower Preservation Society, we can be proud of the Society's previous efforts to conserve plants through education, protection and propagation. We must remember, however, that these achievements were not produced by spontaneous generation but by conscious endeavor.

Of special importance to the Society has been the continued cooperation and assistance provided by the N. C. Botanical Garden. I encourage members of the Society to actively support the Garden.

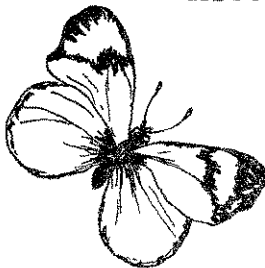
A note of special thanks to Emily Allen and members of the Board of Directors for their successful effort at obtaining a bulk mailing permit and updating the by-laws. Both accomplishments will help the Society.

+ + + + +

Indian Summer

No more the battle or the chase
The phantom tribes pursue,
But each in its accustomed place
The Autumn hails anew;
And still from solemn councils set
On every hill and plain,
The smoke of many a calumet
Ascends to heaven again.

-John Banister Tabb
(1845-1909)



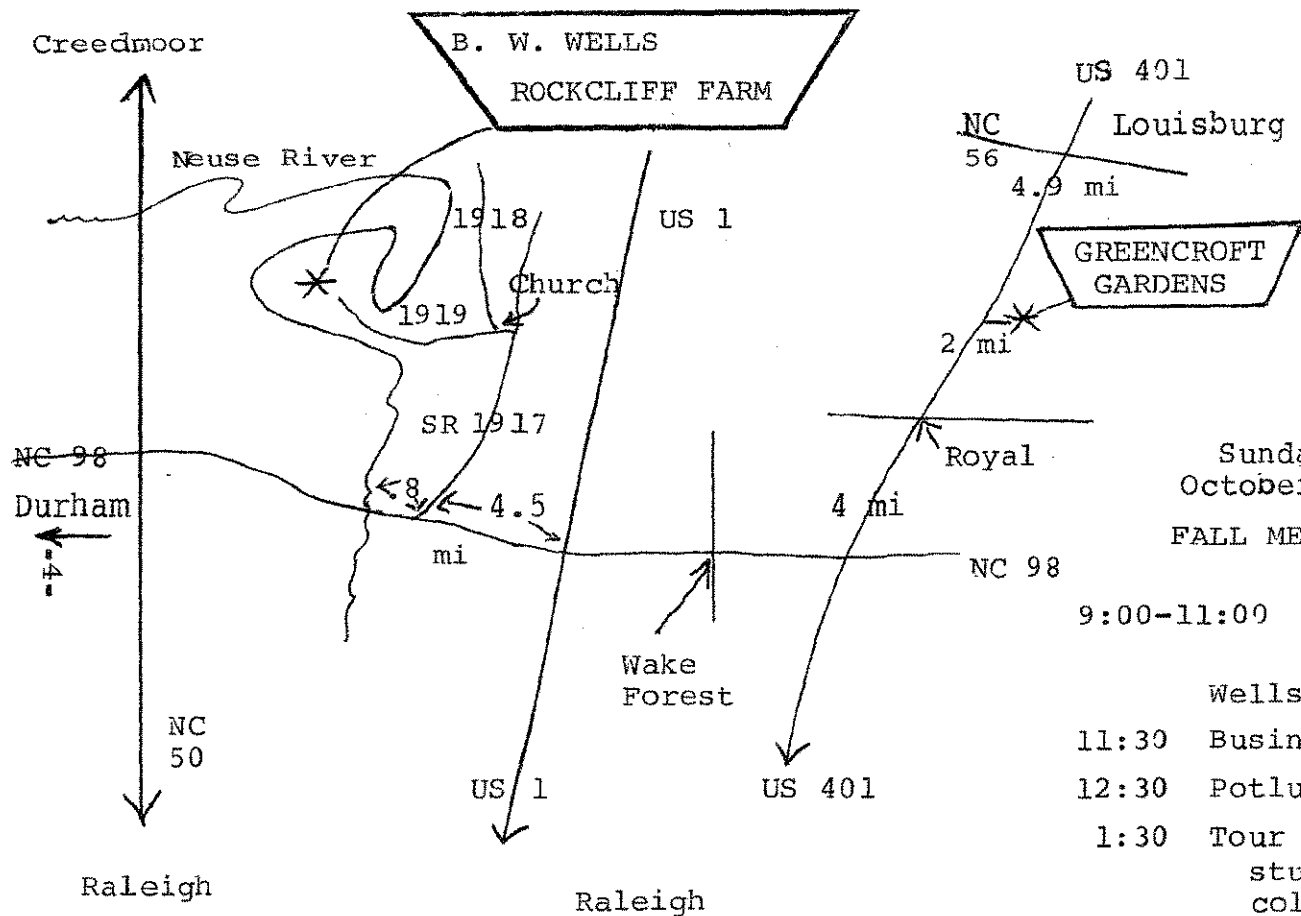
FALL MEETING
N. C. WILDFLOWER PRESERVATION SOCIETY, INC.

Sunday, October 24, 1982.

This year's fall meeting will be a one-day event beginning at 9:00 a.m. with a tour of Greencroft Gardens located 4.9 miles south of Louisburg on US 401; look for a sign and designated parking on the east side of the highway. Greencroft Gardens has over 500 labeled, native plants in a variety of plantings and habitats including a fern collection, rock outcrops, a waterfall and lake. This is the private garden of Allen deHart which is maintained by Friends of Greencroft Botanical Gardens.

To reach the B. W. Wells Farm by 11:30 it is necessary to leave Greencroft Gardens at 11:00. The Wells Farm is now part of the Falls (Reservoir) State Park. The ongoing project to make the site into an interpretive center in the memory of B. W. Wells has been described in previous newsletters. The farm is located within a great bend of the Neuse River and is reached from NC 98 by taking State Road (SR 1917) north, turning left on to SR 1918 at Stoney Hill Church, and turning almost immediately on to SR 1919. Follow SR 1919 for about 1.7 miles to the designated parking area.

Members of the B.W. Wells Association formed to support the interpretive nature center will host the meeting and serve as guides.



Sunday
October 24
FALL MEETING

- 9:00-11:00 Greencroft Gardens
- Wells Farm
- 11:30 Business meeting
- 12:30 Potluck Picnic
- 1:30 Tour trails, visit studio, seed collection demo. Plant exchange

Following the business meeting, we will have a potluck picnic. Bring lawn or camping chairs or blankets to sit on. In the event of rain we will meet at the Stoney Hill Church. The afternoon activities will include walking the trails and propagation and seed collecting demonstrations. Bring plants and seeds for a plant exchange.

Gardens & Natural Areas of Interest in Region

-Raleigh-

Mordecai Historical Park - 1 Mimosa St., off Wake Forest Rd., in downtown area; grounds, herb garden and buildings open free of charge.

N.C. State University Arboretum - Univ. research Unit 4 (Method) on Beryl Rd. across from Capital City Lumber south of state fair grounds; extensive plantings of exotic and native woody plants; oriental garden under construction and displays of home landscaping ideas.

For information on the following contact: N.C. Division of Parks & Recreation, P.O. Box 27687, Raleigh, NC 27611.

Hemlock Bluffs State Natural Area - Southeast of Cary along Swift Creek; unique Canadian hemlock stand on steep bluffs.

Mitchell's Mill State Natural Area - East of Rolesville; extensive granite outcrop with scenic stream.

Umstead State Park - On NC 70 between Raleigh and Durham; variety of trails, picnicking and camping facilities.

-Chapel Hill-

UNC Botanical Garden - Laurel Hill Road off 15-501 by-pass; extensive collection of native plants in habitat plantings; insectivorous plant collection, herb garden and woodland trails.

-Durham-

Sarah Duke Garden - Duke Univ. campus, formal garden of exotic species and Oosting native plant collection.

POLLINATION
by
Charlotte Gantz

Anyone who spends much time among wild-flowers must be aware of the busy work of pollinators. But closer observation produces a raft of questions. Why are there so many different insects on Queen Anne's lace (Daucus carota); sixty species are said to visit it. Why so few on violets and wild roses--flowers that to us are more colorful and fragrant? Why do most insects ignore red columbines (Aquilegia canadensis), cardinal flowers (Lobelia cardinalis) and, in the garden, red zinnias (Zinnia elegans)

Whole books have been written on the subject, chief among them B. J. D. Meeuse's The Story of Pollination and Charles Robertson's Flowers and Insects, while Dr. Theodore B. Mitchell's monumental Bees of the Eastern United States provides much information on the flowers preferred by bees, and Rutherford Platt includes three chapters on pollination in This Green World.

First of all, what are the chief pollinators and what are they seeking? Birds and butterflies come to mind at once, but to these must be added moths, syrphid and bombyliid flies, beetles, birds and bats. Since nectar-seeking bats are mainly tropical, we can ignore them here. Some beetles are fond of pollen; bees take both pollen and nectar. The rest--butterflies, moths, flies and hummingbirds are after nectar.



Rutherford Platt provides an interesting analysis of what different flowers produce in the way of pollen and nectar and where the nectar is located. His first group consists of flowers having pollen but no nectar. Among these are wild roses (Rosa sp.), hepatica, bloodroot (Sanguinaria canadensis), clematis (Clematis virginiana), meadow rue (Thalictrum sp.), elderberry (Sambucus sp.), whorled loosestrife (Lysimachia quadrifolia), mullein (Verbascum sp.) and spiderwort (Commelina tradescantia). (The list is longer but I won't include it all). The insects attracted to such flowers, he says, are principally beetles and honeybees. Bumblebees are interested in pollen only as a sideline. This last is inaccurate since all young bees are fed on pollen moistened with nectar, pollen being as high in protein as the animal food with which wasps provision their nests.

The second group are flowers with exposed nectar. "Small hardy white and yellow flowers always with wide open petals. The nectar is a flat layer at the base of the pistil and sparkles conspicuously in the sun.--Their chief visitors are the short-proboscis flies, wasps and beetles--." My own notes on Queen Anne's lace (Daucus carota) show 13 different wasps, 10 different beetles, 5 different bees (of which all but one, the honeybee, were short-tongued), 3 flies, 3 butterflies and 1 moth. In addition to Queen Anne's lace, the group includes water hemlock (Cicuta maculata) (which has always given me an unusual array of wasps), golden Alexander (Zizia aurea), sumac (Rhus sp.), New Jersey tea (Ceanothus americanus), wild grape (Vitis sp.), the viburnums, boxwood (Buxus sp.), flowering dogwood (Cornus florida), etc.

The third group has partially concealed nectar and the flowers are usually white and yellow but "the yellows are deeper and a few are magenta and pink." Many are partly closed and cup-shaped. For

this group syrphid flies, short-tongued bees and honeybees join the insects that fed on the second group. Bumblebees and butterflies, Platt claims, do not come in these flowers which include buttercups, (Ranunculus), cinquefoils (Potentilla), mustard (Brassica), chickweed (Cerastium), barberry (Berberis), apple (Malus pumila), cherry (Prunus), spiraea, etc.

Too many of my notes concern insects on cultivated flowers, and I can only say here that bumblebees were the chief insects found on my spiraea and that when it was at its peak they were constant visitors. They also displayed a passion for English plantain (Plantago laciniata) which must belong either to groups 2 or 3. Robertson lists three species of bumblebee, and two of butterfly on black cherry (Prunus serotina). Rutherford Platt was preeminently a botanist, not an entomologist, so it is hardly surprising that some of his generalizations about insects are open to question. But the rest of his material is interesting.

In the fourth group, the nectar is completely hidden and these flowers have great variety of form along with deep rich colors. Few are yellow or white. According to Platt, honeybees, bumblebees, butterflies and moths are the chief pollinators. The flowers here include geranium, mallow (Malva), lythrum, blackberry (Rubus), lilac (Syringa vulgaris), forsythia, milkweed (Asclepias) and others. The composites belong here, too, because their nectar is concealed but "seeps out on a ridge at the base of the pistil so abundantly that it rises in the tube of the flower and thus becomes available for any length of proboscis."

Platt goes on to say that most bee flowers are blue or purple while butterflies favor red blossoms. Almost none of this is borne out by my observations over a period of some thirty years, and I have come

to think that most generalizations based on color are unwise with one exception--Meeuse's comments on red flowers. He states that bees are red-blind and adds that if other insects have this same lack, it explains the shortage of pure red flowers in Europe where there are no bird pollinators. Hummingbirds do "see" red, and we know they are drawn to red flowers. Red poppies in Europe reflect ultra violet which bees can "see", and the few other red flowers on that continent are visited by butterflies.



Red zinnias draw butterflies here, but I seldom see insects on other red flowers. A Cloudless Sulphur on impatience (Impatiens wallerana) lately was a noticeable exception. And both bees and butterflies can be found on white, yellow, orange and blue flowers. Actually, since our "white" flowers

usually reflect ultra violet, they may seem colored, according to Meeuse--probably blue-green. Meeuse says further that the nectar-producing reds have no fragrance since birds are unaware of such odors. Generally speaking, fragrance seems of lesser importance than other factors although it may be the chief attractant for night-flying moths.

Another consideration is the fact that many plants yield their nectar and pollen at definite times. Thus chicory (Chichorium intybus) is productive only between 7 and 12 o'clock in the morning. "For wild mustard (Brassica) and certain dandelions (Taraxacum) the traffic," according to Meeuse, "is heaviest around 9 A. M. The rush for blue corn-

flowers is at 11 A.M.; for red clover (Trifolium pratense), fireweed (Epilobium angustifolium) and marjoram (Origanum vulgare) around 1 P.M.; for viper's bugloss (Echium vulgare) and bachelor's buttons 3 P.M." The sugar content of the nectar also varies with the plant. High in sugar are horse chestnut (Aesculus), common rue (Thalictrum), milkweed (Asclepias), linden (Tilia), marjoram (Origanum vulgare) and apple blossoms (Malus pumila). This is again taken from Meeuse.

Almost everything one says about insects, however, needs qualification. The best times for nectar production, as Meeuse admits, may need adjustment as the season advances. Queen Anne's lace can draw multitudes of insects; it can also be completely devoid of them. One year my photinia (Photinia serrulata) was covered with honey and other bees; another year none came near it. Weather must play a part, but equally important, perhaps, is the competition. When my photinia was so attractive, there were few other flowers of equal appeal. As I added more shrubs and garden flowers (almost always with an eye to their insect popularity) the picture changed. Geography seems to be a factor. Clethra alnifolia in my Pennsylvania home was crowded with visitors; in the Sandhills it often lacks customers.

And now a final word about the habits of bees. Much of this would apply to other insect pollinators but because of the importance of bees, they have been more thoroughly studied. First of all, we must recognize the many different kinds of bees from the short-tongued colletids, andrenids and halictids to the long-tongued leaf-cutter, honey, anthophorine, carpenter and bumblebees. (Which is why generalizations are so risky.) Halictids, honey, carpenter and bumblebees are with us all season long and for the most part have cosmopolitan tastes. Halictids, carpenter and bumblebees seem to go from one

species to another almost indiscriminately, although when bumblebees are confronted with a field of red clover, an individual bee is said to be able to take care of 100 florets in half an hour. But bumblebees generally hedge their bets according to Bernd Heinrich in Bumblebee Economics. He says, "the bees play a game analogous to the stock market. They do not know beforehand which is the most upcoming commodity (flower) and their best strategy is to invest primarily in the flower that appears to be most remunerative while simultaneously investing some energy in several minor species."

Honeybees are more apt to concentrate on one species at a time and to be more selective. Thus I've found them in numbers on holly (Ilex), black cherry (Prunus serotina) and chrysanthemums, but only an occasional one appears on most of my other shrubs and garden flowers.

Some of the other bees have shorter seasons or are in evidence only at special times of the year. According to Mitchell, anthophorine bees have long seasons but I find them in my garden and at Weymouth Woods only in the spring and then only on grape hyacinth (Muscari armeniacum), azaleas and vaccinium. The short-tongued colletids fly either in the spring or fall and many species occur on just a few plants. Andrenas are mainly spring bees and are among our greatest fruit pollinators. Again many are limited to just two or three kinds of flowers. Most of the leaf-cutter bees (Megachile) are said to have long seasons but visit my garden only briefly when milkweed (Asclepias) and orange cosmos (Cosmos sulphureus) are in bloom.

The 1952 Yearbook of Agriculture states that honeybees, although not native, pollinate 80% of our commercial crops. This is because they "can be increased and moved about easily." However, "various

native species are more efficient pollinators of certain crops such as alfalfa, red clover, and sometimes even fruit than honeybees." The Yearbook adds, "in the forests and ranges many herbs, shrubs and trees will always have to depend on native insects for their reproduction." For a final word there is this: without pollinators, it would certainly "be a bleak springtime if no gay-colored flowers were to grow in the forest glens and open hillsides."

+ + +

Mrs. Gantz lives in Southern Pines, where she is active in environmental concerns. Her special interest is insects, and her choice of plants for her garden is based on their ability to attract insects.

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THE WOODLANDERS AND DR. WHERRY

by

Elizabeth Lawrence

I have been wanting to write about the Woodlanders ever since Robert and Julia Mackintosh came by on their way back to South Carolina after a vacation in New England. They told me that they, with Robert McCartney, were starting a nursery in Aiken, specializing in the plants of the southern Piedmont and Coastal Plain. Many of them, Julia said, are becoming rare as their habitats are destroyed. The purpose of the nursery is to seek out and propagate the beautiful and neglected plants of this region, and to encourage their wider horticultural use by offering them for sale.

It will be our fault if we do not take advantage of this golden opportunity to fill our gardens with these plants that have not been available since the days of Latta Clement's Nik-Nar Nursery near Asheville, and The Three Laurels at Marshall, North Carolina. One more word to the wise: do not fail to read, mark, learn, and inwardly digest, and save all of Julia's descriptive catalogues. They are full of information that you will not find elsewhere; information written for southern gardens. They will be collectors' items.

I began this intending to write about the native trees and shrubs and the herbaceous plants that I have grown in my garden or seen in other gardens in these parts and that Julia has described in her catalogues. But I found that she uses Dr. Wherry's monograph, The Genus Phlox, as a reference for her species, and that it is still available from the Bookstore of the American Rock Garden Society. Having acquired it, I was lost; when I realized that I had more material on Phlox alone than the Wildflower Society's Newsletter could

absorb in years, I regretfully gave up writing a book about the Woodlanders; but if Linda can spare space, I mean to write more, later on, about the native and exotic plants that Julia and Bob have been growing in Aiken, and that I have been growing here or in Raleigh.

Soon after my mother and I came to Charlotte, Dr. Wherry and another botanist, his friend, Mr. Benedict, came by on a collecting trip in search of a remarkable new species of cactus that had recently been discovered along the Catawba River. Dr. Wherry also wanted to look for the place where a Mr. Crow had told me he had found an albino form of a mossy phlox growing naturally near a bridge over the Catawba River. "If it should be Phlox subulata," he wrote, "I want to hunt up the place myself. It could be a most important discovery from the standpoint of plant geography, since that far south we have authentic records of it only from much higher altitudes." The place was found, but the phlox was no longer there, and the plant that Mr. Crow had transferred to his garden turned out to be Phlox nivalis, which is normal for this region.

In the last week of March 1948, Dr. Wherry started on a field trip to collect further data for various species of phlox. From Philadelphia, he drove south through North Carolina, then to Louisiana and Texas, and up the West Coast to Washington. The first species he saw was Phlox nivalis. It was in bloom at the head of a small springy swamp on the northwest side of the highway just ten miles northeast of Charlotte. There were no striking color forms in the small colony; however, a few days later, he saw much prettier ones in South Carolina. The colors available in this species from the Woodlanders are pastel pink and lavender; a white form is also listed. It occurs in xeric sites on the Coastal Plain from Virginia to Florida. The

flowers bloom in Aiken in spring and fall, and often in winter; the foliage is evergreen. It needs sun.

In his little folder in 1936, Latta Clement, the Nik-Nar Nursery, listed four named cultivars of Phlox nivalis: 'Anne Knight,' lavender flowered; 'Colonel Moore,' a sheet of pure white flowers; 'Mary Alice,' pale pink with red eye, very neat; 'Sir Guilford,' bright pink blossoms with red eye, very showy and handsome. Sir Guilford must have come from Guilford County, which was named for the first Earl of Guilford (1704-1790), an intimate friend of George III and Queen Charlotte. I hope it is still cherished in some garden or nursery; it seems to me meet and right to give flowers historical names, such as naming them in honor of plant explorers, botanists, and horticulturists; but it is useless unless the flower is kept in cultivation.

In his monograph, Dr. Wherry mentioned 'Mary Alice' as one of the named clones that has been in the rock-garden trade in recent years, along with 'Azure,' which was found by Mrs. J. Norman Henry in Georgia. Most notable of all, however, is 'Gladwyne,' also collected by Mrs. Henry in Georgia, which he considers the best white mossy phlox, and it tends to flower continuously from April to November.

"A vigorous large-flowered plant which appeared spontaneously in the garden of the Henry Foundation in Gladwyne, Pennsylvania, has been named Phlox henryae Wherry. It combines the characteristics of P. nivalis and P. bifida... and is manifestly a hybrid between them."

In the American Rock Garden Society Bulletin, Vol. 4, No. 2 (1946), Dr. Wherry says, "There has been so much confusion in the relationships of Phlox nivalis that a discussion of its history is in order. It was sent to England in early colonial times, and figured by Plukenet in 1691. It was later misnamed by Linnaeus, but was brought per-

manently into horticulture in 1788.. "In the early 1920's, a Dr. Wray sent a white-flowering variant from Augusta, Georgia, to the firm of C. Loddiges in England, and they issued a color plate of it under the name of P. nivalis--signifying snowy--in 1823. " The epithet was validated by Sweet in 1827, but Asa Gray "refused to distinguish Phlox nivalis from P. subulata, and thereby led Charles Darwin to become confused as to their pollen relations." And the confusion didn't end there, but Dr. Wherry's epithet, Phlox nivalis Loddiges var. Sweet, is upheld by the staff of the Bailey Hortorium, in Hortus Third. As Dr. Wherry says, "The nomenclatorial situation of this taxon is complex. "

There seems to be no final word as to the valid name of Phlox Hentzii. It appears, in Dr. Small's Flora of the Southeastern United States (1903) as Phlox Hentzii Nutt.; in our Manual as Phlox nivalis Lodd, var. Hentzii; and in Hortus Third it does not appear at all. Dr. Wherry says it well merits the common name, Pine Phlox.

In the Natural Gardens of North Carolina, Dr. Wells calls Phlox Hentzii "the Sandhill Moss Pink," and says, "It differs from the common moss pink (P. subulata) in that the plants do not form large, loose mats, but the stems stand stiffly erect in small masses.... It is one of the most desirable plants for exposed rock gardens, being much superior to the other species. P. Hentzii is distinctly Southern and is confined to the Sandhill country. "

Reginald Farrer said the day that saw the introduction of Phlox subulata into England ought to be kept as a horticultural festival. That day was the tenth of December, 1745, when John Bartram sent "one sod of the fine creeping-spring Lychnis to Peter Collinson in London," phlox at that time being thought to belong to the genus Lychnis. Dr. Wherry appreciated Farrer's enthusiasm and the

importance of his dissertation as to the future of the rock-garden, but he deplored his having had only Brand's 1907 monograph at hand. For Brand was a German who had never visited America, and knowing few of the species in living condition, had misinterpreted a good many of them.

Although it doesn't grow naturally any farther south than Atlanta, Caroline Dormon was able to establish Phlox subulata at Briarwood. "How can anyone create a rock garden without it?" she asks in Natives Preferred. "The tiny leaves are evergreen, so the spreading mats are attractive even in winter. In February (in the Deep South) they begin decking themselves in their pretty flowers, white, blue, lavender, and pink. They bloom for weeks, and at the height of their season form carpets of gay color. Dr. Edgar Wherry says Phlox bifida has larger flowers, but to most gardeners that species is included in P. subulata."

On his way to the West Coast in the spring of 1948, Dr. Wherry stopped at Saline, Louisiana, to visit Briarwood. Caroline took them to a bluff near Shreveport where she had found a large colony of an unusual form of Phlox divaricata. When they came to the place, she had difficulty in finding a single clump for him to photograph. "They used to cascade all down that bluff!" she cried. "What became of them?" he asked. She replied, "Diggin' women!" He asked permission to quote her comment. She gave it, but asked him not to mention her name. "Some of my best friends are 'Diggin' Women'" she said; then added, "and now we have 'Diggin' Men!" So many are becoming interested in gardening." In the Deep South, P. divaricata is perennial and evergreen. It occurs from Florida to Louisiana and northward. This was another early introduction into European horticulture. It was sent by John Bartram to Peter Collinson about 1739. A plant from Virginia, grown in the Uppsala Botanic Garden and pressed by

Linnaeus before 1753, is in the Linnaean herbarium.

Last year, Belden Saur sent me the 1981 price list of the Rocknoll Nursery on U. S. 50, Hillsboro, Ohio. I looked at once for phlox, and he said, "At the moment we are interested in the Genus *Phlox* especially in the monograph by Dr. Edgar T. Wherry under *Phlox subulata australis*, the Western and more Southern form of *subulata* as described by Dr. Wherry." Mr. Saur listed 'Maiden Blush,' 'Fort Hill,' and 'Twin Creek,' the latter from Rose County, Ohio.

Phlox subulata australis was found by Dr. Wherry seven miles from Staunton, Virginia, April 9, 1928. It grows chiefly in neutral to moderately acid soils on open rocky slopes chiefly in the Appalachians and Piedmont. *Phlox subulata Brittonii* (Small) Wherry, Britton's phlox, was found on Kates Mountain, West Virginia, in May 1898. Dr. Wherry says, "It grows chiefly in subacid soil over shale in the Appalachians and gneiss in the Piedmont, along the upper New River and the Potomac. It is known south to Ironto and west to White Sulphur Springs." I never could find Ironto in the atlas, but I learned from the zip code directory that it is in Virginia. (Dr. Wherry expects you to know geography). *Phlox Brittonii* is listed in the 1982 Rocknoll catalogue, and is described as having "light pink flowers over tiny clumps of short needle-like foliage."

"Starting with a small nursery at Foster, Ohio," Mr. Saur said, "Rock plants and unusual plants have been my business for many years." I wish I had known him then—over fifty years ago—when he and Carl Krippendorf and Robert Senior were gathering other lovers of saxatile plants together in Cincinnati to form the Ohio Rock Garden Society. That was not very long before I first visited Mr. Krippendorf at Lob's Wood, his woodland acres near Milford, Ohio. At the same time I was reading

Mr. Senior's articles in the early issues of the American Rock Garden Society's Bulletin, and getting plants from the Rocknoll Nursery. Many of these plants, Mr. Saur said, came from the large Rock Garden at the Saur Farm of Hillsboro. They were grown and divided from these plants."

While I was writing all this, the postman brought the Rocknoll Catalogue for Spring 1982, and with it a note from Eleanor Saur. "Dear Miss Elizabeth," she wrote, "I have your letter you wrote to Belden, my husband, but he died on the fourth of November, 1981, out in his garden planting an allium from North Carolina. It is blooming today (June 27) with lovely red flowers.

"Dorothy sent out this catalogue in January. An interesting list is published by Allen Bush of Holbrook Gardens, Hendersonville, North Carolina. Belden got the lovely phlox Chattahooche from Allen. We visited the members of the Western North Carolina chapter of the ARGS at Hendersonville two years ago. Next week, my daughter and I are going to the National meeting of the ARGS at Boulder, Colorado. I am 76 years old, but hope to put out another list next spring."

"This spring," Mrs. Saur wrote, "we listed 32 varieties of phlox. You will see Phlox glaberrima among them. It grows about 15 miles from Hillsboro; there are about five acres of them. You will find this phlox pictured and described in Wherry's Phlox Book." Two color forms of P. glaberrima interior Wherry ('status novus' for uniformity) are offered: one, "bright reddish purple to rose; the other, lavender, is selected from plants growing in nearby Pike County, Ohio." The height of them is given as 12 to 15 inches. "We offer quite a few new phlox this spring that have been tested in our garden in South-west Ohio."

I feel I should mention here the André Viette

Farm and Nursery Perennial Catalogue (1981) as Mr. Viette is a Virginian and as he lists seven named cultivars of Phlox subulata, two of them being 'Millstream Daphne' and 'Millstream Jupiter', recently released by the Fosters. As Mr. Viette's farm is near Fishersville, I thought it would be in the Tidewater country, but it is between Staunton and Charlottesville, Dr. Wherry's 'happy hunting ground.'

The Woodlanders list Phlox stolonifera, a lilac-blue selection. Caroline called the flowers light blue. Dr. Wherry described the color as changing with the latitude, the colonies being more violet in the South and "varying from violet to lavender, and from purple to lilac; and northward rather uniformly purple." He says the scent varies in strength and is somewhat like honeysuckle. He says the best color forms are 'Blue Ridge' and 'Pink Ridge.' I found a plant said to be 'Blue Ridge' in a Greensboro garden some years ago; the flowers matched Ridgway's Mauve. In my Raleigh garden I checked the color of the flowers of P. stolonifera from the Gardens of the Blue Ridge for several years. They checked as Light Phlox purple, Bishop's Purple, and Chinese Violet; the colors are closely related, as you can see on the Ridgway Color Standards: the first two have the same plate number, XI; and all have the same color number: 65. Dr. Wherry says Ridgway named the color 65b "Phlox purple" because the flowers of Phlox glaberrima are often of that bright purple hue. Dr. Wherry expects you to know Ridgway.

Phlox stolonifera Sims was discovered in Georgia by John Fraser, an English plant explorer, in 1786, but he did not take plants to Europe until his return from his sixth trip to North America in 1801. John Sims described the species in Curtis' Botanical Magazine in 1802. The same species was

found in our mountains by Michaux, who named it Phlox reptans, a name no longer valid, but still in use when Mrs. Lounsberry traveled in North Carolina mountains at the turn of the century, and wrote about southern wild flowers and trees. "P. reptans," she wrote, "crawling phlox, a beautiful dwarf form, shows its large flowers in one of the pink or purple shades, and through our range is to be found mostly in the mountains where, on moist slopes or valleys it sometimes covers the ground." I have seen this species in bloom in April at Botany Hill, a nature preserve in Polk County, a few miles west of Charlotte, and heard of it growing naturally as far east as the hills of Randolph County. It occurs in the Appalachians, from central Pennsylvania to Atlanta, and a little way into Tennessee.

In late March 1948, Dr. Wherry left Philadelphia on a field trip to collect additional data on some species of the Genus Phlox. Driving south, he first came upon Phlox nivalis in bloom in North Carolina; as he went on to the Gulf Coast he found P. amoena and P. pilosa along the way to the southwest.

Phlox amoena Sims was discovered in South Carolina along the Santee Canal in 1786 by John Fraser and illustrated and published by John Sims, editor of the Botanical Magazine, in 1810. John Fraser was a celebrated botanist and plant collector, and a friend of Thomas Walter, a South Carolina botanist and author of Flora Caroliniana, 1781, "which was written entirely in Latin, and composed Ad Ripas Fluvii Santee."

Phlox amoena is usually called the Hairy Phlox, but I prefer Dr. Wherry's name, Chalice Phlox. He says it requires more acid soils than are maintained in most gardens, and is rarely cultivated. What dealers offer under this name is a natural hybrid of P. stolonifera and P. subulata,

the correct name for which is P. procumbens. Mrs. Saur lists P. procumbens and also a form with bright pink flowers four inches, and also 'Timmie Foster,' a pink selection. This is evidently not the plant Mrs. Wilder had since she described it as "easy and useful, gay and very willing."

Mr. Clement claimed that he grew the true species, P. amoena, rosy red flowers, 12 inches. The Woodlanders offer a pale lavender selection; and whatever I had in my Raleigh garden as P. amoena produced flowers of a hue close to Ridgway's Mallow Purple with a dark purple eye. I think this was the one I had from Carl Purdy in 1945. It bloomed on the eighth of March in 1946, and again from late October to December. Mrs. Henry selected a blueish-flowered form of P. amoena (not P. procumbens), propagated it, and put it on the market, along with clones of other species that she considered to be of horticultural value, such as P. amoena 'Tallapoosa.'

Phlox pilosa was one of the three figures published by Plukenet in 1691; it was later described by Linnaeus, and is recognized in Hortus Third as P. pilosa L. Its range is from Connecticut to Florida, and west to Texas and Wisconsin. "The color most often seen," Caroline Dorman says, "is a rather hard magenta-pink," but she says her sister-in-law, Ruth Dormon, found a lovely, almost magenta-pink form growing on her place near Shreveport.

In his article, "Rock Garden Phloxes," there is a photograph of P. pilosa ozarkana that Dr. Wherry made in Shreveport, "native in Mrs. James Dormon's wild garden." Caroline was indignant when he named this variety (or subspecies) 'Ozarkana' because he found it in the Ozark Mountains.

"I call it the Caddo Phlox," she wrote when she sent it to me, "it grows in sheets in Caddo Parish in Louisiana." Ruth sent me the typical P. pilosa, and later on Caroline sent me "Minnie Colquitt's Peach Blossom--different from Ozarkana." I see no difference in any of these and I no longer know which is which; but whatever colony I have is increasing though not encroaching, on a raised border facing northwest where it blooms usually from late April through May, or some seasons not until the first of May. Caroline said it is too tall for a rock garden; but the slender stems lean gently together to form a low mass that glows in the late afternoon sunshine; and in my garden, it is the loveliest and most beloved of all low-growing perennials.

In the same issue of our Bulletin, Dr. Wherry discusses Phlox ovata and relatives. "The first reference to this species," he says, "was made by Plukenet in 1700; the species epithet was assigned to it by Linnaeus in 1753... The name Mountain Phlox has been allotted to the present species because of its abundant occurrence in the Appalachian Mountains from northern Georgia to east central Pennsylvania."

In May 1929, Dr. Wherry drove "through the hills of Walker County, Alabama, on the lookout for interesting native plants," and he discovered near the village of Oakman a spectacular relative of P. ovata. This bears abundant large soft-pink flowers, and was duly named P. ovata pulchra." Oakman is about 40 miles northwest of Birmingham, so I was not surprised when Weesie Smith sent me from her wildflower garden a small plant labelled "Phlox pulchra+not P. ovata pulchra."

Weesie's phlox arrived on the 4th of February, 1974, and bloomed early in May. It bloomed early in May again the next year, and I haven't seen

it since. The flowers were Ridgway's Mauvette, a very pale tint of Chinese Violet; they were a little more than an inch across and faintly fragrant. Dr. Wherry says P. pulchra thrives in a few gardens. Mine must not be one of them; but he photographed it in a garden in Pennsylvania. I first had P. pulchra from the Nik-Nar Nursery in 1940, as "a new variety of P. ovata, and by far the most beautiful of our native phlox--large heads of soft pink." I never saw it in the trade again until it appeared on the Woodlanders list: "P. pulchra, Alabama Phlox."

I believe Dr. Wherry considered the finding of "the so-called Phlox texensis" in its native haunts, and being able to prove it to be typical P. nivalis, separated from the Alabama-Florida colonies by a gap of over 500 miles, the most important accomplishment of his entire 1948 trip exploring for phlox. The habitat of Phlox nivalis texensis is open pine-oak woods on sandy slopes, and it is endemic in the Coastal Plain, and known only from Woodville, Texas, and adjacent areas.

In April 1950, Dr. Wherry wrote, "Yesterday I was in Washington and went out on a trip with Mr. Benedict, who was my companion when we visited you last summer. We talked over further trips together, but we feel inclined to go northward this year. But you can rest assured that whenever circumstances lead me to within reach of Charlotte, I will call to see you."

He never did get within reach of Charlotte again, but letters were exchanged, and I know he would no more overlook a friend in his travels than he would pass by a phlox without a salutation. Once he wrote from Georgia, "This afternoon we saw some rocks on a hill northwest of Marietta where 20 years

ago I had seen Selaginella rupestris, so I climbed up, and there it was!"

All the while I was writing this I was thinking about Dr. Wherry and feeling uneasy. Just now I found the ARGS Bulletin, Summer 1982. In it was an announcement of his death on May 19, 1982. I was not surprised; I had known it all along.

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Elizabeth Lawrence is a poet, landscape architect and author of three books and a booklet on Lob's Wood. In her garden in Charlotte, N. C. there is bloom at every season. She has written the introduction to William Lanier Hunt's book, Southern Gardens, Southern Gardening, which was published in June by the Duke University Press. About the book she comments,

"William Lanier Hunt's Southern Gardens, Southern Gardening is a book that has long been looked for and which will be welcomed with delight; it touches upon just about everything in the South and in England and does not neglect the Yankees. It is unique."

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The North Carolina Botanical Garden reports that biodegradable plastic garbage bags and mulching plastic are being developed by the U. S. Department of Agriculture. Corn starch in these plastics will make them break down after one growing season.

UNIVERSITY BOTANICAL GARDENS OF ASHEVILLE

by

Nell Lewis

The visitor to the University Botanical Gardens in Asheville forgets for awhile that just beyond this quiet and beautiful place there is the din and restlessness of a busy city.

The gardens, located on a ten acre tract set aside by the Board of Trustees on the campus of the University of North Carolina at Asheville, were only a dream in 1960. Charles K. Robinson noted in his column "Along the Way" in January of that year that the grounds for the new home of the then Asheville-Biltmore College had been suggested as a site for a "reproduction, though of course on a small scale, of the Biltmore Estate Arboretum" which had, to a great degree, been discontinued.

The gardens were begun the following year from an original design by Dean R. Ogden, a nationally recognized landscape architect of Asheville. The contour of the land gave him freedom of design. There are hills, a spring that feeds a tiny stream into Reed Creek, bogs and a sunny meadow. Dr. J. L. Orbison, president of the gardens, noted that "because of the knowledgeable and thoughtful plan, the plants are displayed in natural settings to show off their beauty and variety.

According to Dr. James Perry, chairman of the UNC-A biology department and a member of the gardens board of directors, there are close to 600 different species of native plants belonging to approximately 90 families within the ten acres.

A lovely and thoughtful feature of the gardens is the Garden for the Blind. Plants with distinctive fragrance and texture grow along a rock wall. Water playing over metal disks and falling into a small pool lends a pleasant sound.

The trails provide the visitor an opportunity to

see the many plants close-up, plants that he might otherwise have to travel miles through terrain of uncertain safety to see. He can walk any day of the year, from dawn to dusk, without hurry, without fee.

A restored log cabin blends into the hills at the end of the gardens' loop trail. Built in the early 1800's in Madison County, the Hayes cabin with its dogtrot has one of its two rooms furnished in the manner of its original owners. The pure simplicity of its rope bed, small table, corner cupboard, cradle, spinning wheel, and cookware around the fireplace, gives one a deeper appreciation for the people who developed this area of our state. The cabin is open on Sunday afternoons from April through October.

The purpose of the University Gardens is "The preservation and display of the native flora of North Carolina. They provide a study area for students, a center of horticultural information for interested individuals, garden clubs, schools, and many other groups. It is a conservation area, a wildlife refuge, and a quiet place of beauty for the relaxation and enjoyment of all." The gardens' only monetary support comes from contributions of "public spirited members of the University Botanical Gardens, Inc., a non-profit corporation." Most of those public spirited members are also dedicated volunteers. They have labored long and traveled far to rescue the treasures of our state that we, the people, might have them to enjoy.

Much of the labor has been done, but the need for contributions is ever present. Maintenance costs have risen to over \$10,000 per year, and the proposed visitor's center awaits funds. Our support of the University Botanical Gardens of Asheville is vital.

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Nell Lewis writes a column on gardening, nature, and conservation for the Sunday edition of the Greensboro Daily News.

PROTECTION STRATEGY
FOR
MOUNTAIN GOLDEN HEATHER

by
Rob Sutter

The high rocky northeast rim of Linville Gorge has attracted botanists and naturalists for over a century and a half. Since Thomas Nuttall climbed to "the romantic summit of the Table Rock" in 1816, Asa Gray and J. R. Small have followed the trails to these exposed rock ridges. There they viewed the Linville River's spectacular course down the slopes of the Blue Ridge, walked through the stunted and sculpted pines, and observed the rock outcrops bordered by blueberries, Blazing star and Turkey's beard.

The primary activities in Linville Gorge today are hiking, rock climbing, and the unique wilderness experiences offered by Outward Bound, but the scientific curiosity about the plants in the area continues. This past summer, Ruby Harbison, a biology teacher at Western Piedmont Community College, spent weeks traversing the ledges of the northeast rim. The object of her interest was a small statured, cespitose shrub, with minute dark green leaves and brilliantly yellow, one-half inch broad flowers which appear in late May and early June. Thomas Nuttall was the first to see this species and he gave it its name. The plant is Mountain golden heather, Hudsonia montana, recognized as a threatened species by both the state of North Carolina and the U. S. Fish and Wildlife Service.

The species' threatened status results primarily from its distribution. Hudsonia montana is found only along the northeast rim of Linville Gorge on U. S. Forest Service property. It occurs in four scattered populations, always associated with flat

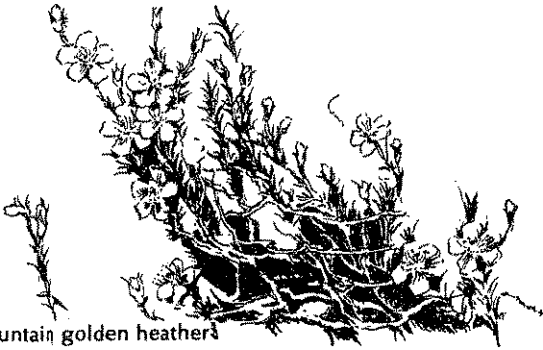
ledges on a specific rock type. This specific rock type, Chilowhee quartzite, is also found only in the Linville area.

Why this species occurs only along the rim of Linville Gorge is a mystery. There are many mysteries about the biology of the species. At how many sites does Hudsonia occur? What could the reasons for the rarity of the species be? What are the threats to the species' survival? These are questions that Ruby Harbison has been working on for five years. In 1980, she initiated some research projects on her own. And in 1981, she was funded by the Plant Conservation Program, the state's endangered plant species program, to study the species in more detail.

With the help of the Plant Conservation Program and the U. S. Fish and Wildlife Service, Ruby established permanent plots in all four known populations. Permanent plots are essential for accurate monitoring work. These permanently marked plots, which are photographed annually, will give definite answers to questions concerning the trampling of plants, the effect of shading, the reproductive success, and the growth and death of individual plants. Following these plots from year to year will provide data for a management plan that ensures the survival of the species.

Ruby's research also concentrated on a characterization of the habitat in which Hudsonia grows. Included in this part of the research were soil surveys, lists of other special growing with Hudsonia, observation of shading and topography. Ruby has also extensively researched the reproductive biology of Hudsonia. The survival of any species depends on the production of young, or in the case of plants, seeds. What factors affect flower number per plant? What pollinates Hudsonia? How many seeds are produced, and how are they dispersed? and is predation

of seeds a factor in the biology of the species? These are some of the questions Ruby hopes to answer.



Mountain golden heather

Hudsonia montana is one of the few rare plants in North Carolina that occurs only in the state. It is one of the most restricted (in distribution) plant species in

the country. As with most of our state endangered and threatened plants, we lack the understanding of species biology that is needed to protect it from extinction. Thanks to Ruby, this is slowly changing for Hudsonia.

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Rob Sutter is the botanist for the North Carolina Protection Program of the N. C. Department of Agriculture which administers the 1978 Plant Protection and Conservation Act. (See "North Carolina's Protected Species" in the Fall 1980 Newsletter).

SPRING FIELD TRIP

by

Larry Mellichamp

On April 24, 1982, a beautiful cool Saturday, about 50 members of the North Carolina Wild Flower Preservation Society met in the parking lot of Holiday Inn at Hendersonville, N. C. and set off for a day of exploring in Polk and Henderson Counties. Group leaders for the day were Frank Bell, Sr., Charles F. Moore, Clyde Osborne, Tom Howard and Larry Mellichamp. Outstanding botanical sites visited were Pacolet Falls, Pearson Falls, and Frank Bell's home grounds at Tuxedo.

At Pacolet Falls the energetic hikers encountered numerous treats, beginning with beds of Turk's Cap Lily (Lilium superbum), Little Sweet Betsy (T. cuneatum) and the rare Pennywort (Obolaria virginica). Scattered throughout the rocky woods were Jacks-in-the-Pulpit (Arisaema triphyllum), of various colors and markings. We observed the phenomenon that, generally, plants with one leaf (a compound leaf with three leaflets) are male, and plants with two leaves (usually more robust) are female. The plants may change sex from male to female as they grow older and larger. Columbine and Showy Orchis were beginning to bloom also.

Further down the trail we were delighted and surprised by the seemingly endless population and variation of Trillium. There were Trillium catesbaei, Trillium grandiflorum, and very robust specimens of Trillium erectum with either white or red petals and every possible intermediate color of ovary (young fruit) from white to dark purple. This would be a good place to study identification of Trillium variations. Oddly, we found no definitive hybrids between species.

Many other wildflowers and trees, such as Silverbell and Yellow Buckeye, lined the trail as we

approached the Falls. The vantage point was shrouded in Hemlock and Rhododendron maximum, and patches of Yellow-root (Xanthorrhiza simplicissima) grew delicately along the rocky water's edge. The Falls were charming, and the remote natural setting made them even more appealing.

Pearson Falls, part of a nature preserve owned and managed by the Tryon Garden Club, has more than its share of botanical treasure. Discovered before 1900 and preserved in 1950, Pearson Falls Glen, with its well-maintained trail and tastefully integrated picnic area, is a State Natural Landmark. Such unusual plants as Dutchman's Breeches (Dicentra cucullaria) and Green Violets (Hybanthus concolor) carpet the ground in places. A charming seepage rock ledge supported nice populations of the rare Golden Saxifrage (Chrysosplenium americanum), Wild lettuce (Saxifraga micranthidifolia) and Rock Saxifrage (Saxifraga careyana). Walking Fern (Asplenium rhizophyllum) was found on moss covered rocks. Dwarf-crested Iris (I. cristata), Wild Ginger (Asarum canadense), Fragile Fern (Cystopteris protrusa), Giant Chickweed (Stellaria pubera) and creeping Giant Chickweed (Stellaria corei) were also conspicuous. The interesting look-alikes, Goat's-beard (Aruncus dioicus) and False-Goat's-beard (Astilbe biternata) were frequent on the rich slopes, but were not yet in bloom. Rhododendron minus was in full bloom at the foot of the falls. The mist created by the Falls forms a humid environment where many rare and delicate plants find suitable niches. The beauty of the Falls combined with the many unusual habitats makes Pearson Falls a worthwhile botanical exploration.

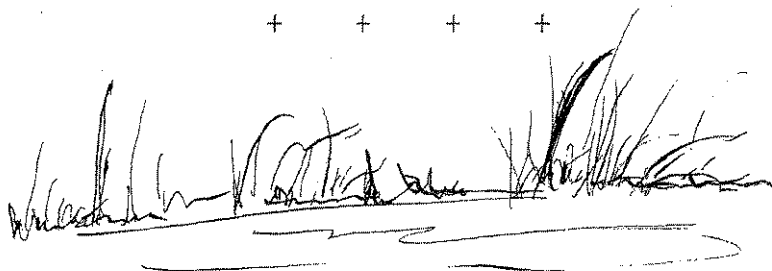
Frank Bell, Sr., has a love for wildflowers that has led him to develop several interesting trails near his home. Along his upper trail, which is somewhat dry and sunny, we found Bird-foot violets (Viola pedata), Wild-oats (Uvularia sessilifolia), Trailing

Arbutus (Epigaea repens), Pinxter-bloom Azalea (Rhododendron nudiflorum), and Dwarf Iris. In a small natural rock garden area were Lilium michauxii, Sedum ternatum, and Sweet Fern (Comptonia peregrina).

Along a lower, more moist and shaded trail we were dazzled by dozens of Showy Orchis (Orchis spectabilis), Trillium catesbaei, and other rich woods species. There were Long-spurred Violets (V. ros-trata) and numerous specimens of cultivated Shortia (Shortia galacifolia). The woods were thick with small Silverbell trees, Fraser's Magnolia, Sweet Shrub, and Mountain Laurel. Mr. Bell's efforts to preserve and enhance these outstanding natural gardens are an outgrowth of his love for people and a desire that they see and appreciate the beauty and wonder of nature.

An evening banquet at the Holiday Inn was a perfect ending for the day. The business meeting, conducted by outgoing President Emily Allen included a thank you to all who made her tenure so successful and a special acknowledgment to Tom and Bruce Shinn for their loyal dedication. Tom Howard received the official President's gavel. He introduced Larry Mellichamp, who presented an informative slide presentation on the wild flowers and natural history of the Hendersonville area. Although Sunday morning was rainy, eager folks set off again to visit the gardens of Charles Moore, the Shinn's, and the Asheville Botanical Gardens, where Dr. J. L. Orbison served as host.

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ACCOLADES TO TOM AND BRUCE SHINN

In her recognition of Tom and Bruce Shinn at the April 24, 1982, meeting of the North Carolina Wild Flower Preservation Society in Hendersonville, Emily Allen cited numerous ways in which they have served the Society.

They have both made a tremendous contribution in pioneering propagation of our native flora. Tom kept copious notes of both his successes and failures. He encouraged our Society to pool their notes on propagation and his inspiration resulted in the publication of our Propagation Handbook, now in its second printing.

Botanists had searched for a pure white phlox for years, and after Bruce discovered it in April of 1959 on a collecting trip in Haywood County, she brought it out, propagated it, and she and Tom shared it with friends, Botanical Gardens, and with the nursery trade.

People throughout the world have received gifts of their seeds and plants and their garden has been a mecca for friends and botanists.

A Note from Bruce Shinn

"Such beautiful words and the gorgeous copy of The Audubon Society Book of Wildflowers, presented to Tom and me at the Hendersonville meeting on April 24, rendered us speechless--and very humble. We do thank the members of the North Carolina Wild Flower Preservation Society, one and all, from the bottom of our hearts."

MINUTES
FALL BOARD MEETING
N. C. WILDFLOWER PRESERVATION SOCIETY, INC.
August 14, 1982

The Executive Board of the NCWFPS met August 14, at the N. C. Botanical Garden. President Tom Howard opened the meeting by thanking Harry Phillips for the use of the Totten Center.

It was announced that Gordon Butler, former president and active member of the Board, after being in declining health for the past year, died on July 25. Lionel Melvin made a motion that the book, Trees of the Southeast, by Coker and Totten, be placed in the Fayetteville and Cumberland library in memory of Mr. Butler. Viola Braxton seconded, and the motion was carried.

A letter from Dr. Richie Bell was read informing the Society that \$100 from the staff of the N. C. Botanical Garden was being sent to the Society in memory of the late Constance Nesbitt Moore, the mother of Ken Moore. Viola Braxton made a motion that the Society send a gift of \$100 to the Botanical Garden in Mrs. Moore's memory. Lionel Melvin seconded, and the motion carried.

The treasurer's report showed a balance on hand of \$4,086.45; in the Scholarship Fund \$2,145.96.

Newly elected trustees Floyd Rich, Teenie Stronach, and Emily Allen were welcomed. Incumbent trustees are Dr. G. Ray Noggle, Dr. T. L. Mellichamp, and Mrs. Robert W. Conner.

The president announced that he had appointed Elvira Howard as corresponding secretary.

Harry Phillips reported there had been an increase in requests for seeds from both the

Garden and the Society members. He asked that the members continue to support this project by sending in collected seeds. He also reported on a project of the Garden called "Wildflower of the Year." This year the Cardinal flower is being promoted with programs being presented to garden clubs and nurseries, and by articles in newspaper garden columns across the state.

Julie Moore presented plans for the Fall field trip and general meeting to be held Sunday, October 24, at the B. W. Wells' Farm north of Wake Forest. It will be a one day meeting with optional trips planned Saturday, the 23rd.

The president proposed changing the basic system of field trips. He feels that the numbers attending has increased so much that the guides cannot adequately reach the group, and that such large numbers tramping through a fragile area tend to impact it. He would like for the Society, in addition to the general meeting, to have a multiple number of field trips across the state. A list would be published and mailed to the membership giving location, date, name of leader, and maximum number of participants. Emily Allen seconded, and it was carried.

Larry Mellichamp suggested that the Society consider making research grants of \$100 to graduate students working toward Master's or Ph. D. degrees in Botany at North Carolina institutions of higher learning. The purpose of such grants would be to help defray costs of their field work. Qualifications of the grant would be that the student should be studying a rare, endangered, or threatened species in North Carolina and/or investigating habitats where such species might occur. Tom Howard appointed the following committee to make a further study of this proposal:

Tom Howard, President
Gretchen Cozart, Treasurer
Larry Mellichamp
Dr. Ray Noggle, and
Dr. Marjorie Newell

There being no further business, the meeting was adjourned.

Respectfully submitted,
Emily Allen
Secretary Pro Tem

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SAGUARO STRIKES BACK! Marcopa County deputies report that a Phoenix man was killed recently when a Saguaro cactus he shot fell on him. He had fired a shotgun at least twice at a 27-foot cactus which caused a 23-foot section to fall and crush the man to death. Nature's revenge!

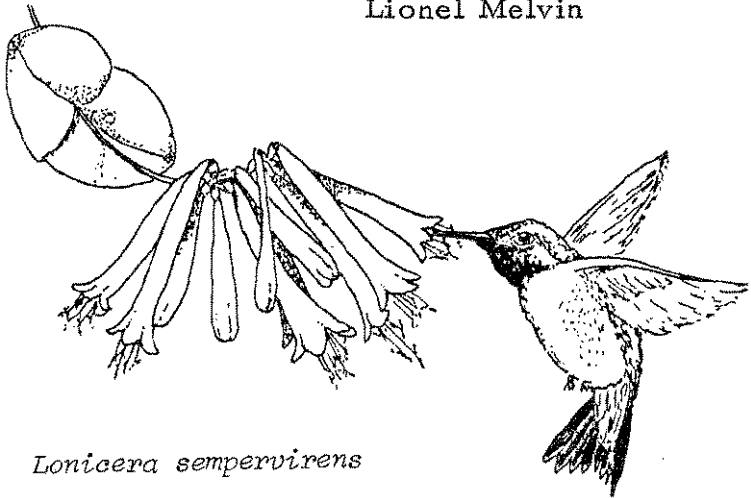


TRIBUTE TO GORDON BUTLER
1902 - 1982

Gordon will be missed. From the day he became a member of the North Carolina Wildflower Society he took an active role in its promotion and was twice elected to its presidency. A graduate landscape architect and a nurseryman by trade, he departed from the common practice of fellow nurserymen in confining their material to the usually cultivated shrubs and trees, and looked about him for the many excellent native ones which he introduced to his customers. This was most likely due to the influence of his former instructor and our beloved Dr. Wells.

He was a good companion to have along on a plant exploration trip. He was never argumentive, but he supported his opinion if he thought he was right. His kindly manner and genuine affection for all of us will be remembered.

Lionel Melvin



Lonicera sempervirens

WE WELCOME THE FOLLOWING NEW MEMBERS
September 1982

Auten, Mr. Ricky B.
122 Country Lane
Belmont, NC 28012

Bennett, Mrs. Roger Q.
Upper Hightower
Rt. 3, Box 581
Hiwassee, Ga. 30546

Bracey, Mr. & Mrs. John A.
P. O. Box 271
Weldon, NC 27890

Caruso, Mrs. Judith
719 Greenwich St.
New York, N. Y. 10014

Collins, Mr. James A.
Rt. 8, Box 211
Hendersonville, NC 28739

Dunn, Michael L.
Cliffs of the Neuse
R. 2, State Park, Box 50
SevenSprings, NC 28578

Ellis, Mr. & Mrs. Wm. J.
410 Horne Street
Raleigh, N. C. 27607

Gommoll, Mr. David A.
7431 Park Road
Charlotte, N. C. 28210

Gray, Mrs. Sandra
218 Mayflower Dr.
Greensboro, NC 27403

Herbert, Mrs. Kenneth H.
18 Jamestown Road
Charleston, SC 29407

Hollowell, Mrs. Barbara G
2600 Kanuga Pines Dr.
Hendersonville, NC 28739

Huegel, Ms. Mary
1104 Sudburry Court
Raleigh, NC 27609

Jerman, Mrs. Thos. P.
P. O. Box 262
Pinehurst, NC 28374

Mann, Mrs. W. T.
P. O. Box 304
Avondale Estates, Ga.
30002

Newman, Ms. Lucile
943 Oaklawn Ave.
Winston-Salem, NC 27104

Page, Mr. Phillip S.
Horticulturist
Old Salem, Inc.,
Salem Station
Winston-Salem, N, C,
27108

Rowell, Mr. & Mrs. John
P. O. Box 796
Valle Crucis, NC 28691
Schell, Mrs. Lisa
1928 Alexander Road
Raleigh, N. C. 27608

Stathopulos, Mr. & Mrs.
Thomas
117 Smith Street
Wingate, N. C. 28174

Stetler, Jr. John H.
6521 No. 3 Monroe Road
Charlotte, N. C. 28212

Suther, Mrs. Barbara J.
419 W. Center Ave.
Mooresville, N. C. 28115

Todd, Dr. James G., Jr.
V/A Medical Center
Asheville, N. C. 28805

Turner, Helen S.
Carolina Village
Apt. 126
Hendersonville, N. C. 28739

White, Mrs. Amy D.
28 Victoria Road
Jacksonville, N. C. 28540



NOTES

N O T E S

N O T E S

**NORTH CAROLINA
WILD FLOWER
PRESERVATION
SOCIETY, INC.**



900 WEST NASH STREET

WILSON, NORTH CAROLINA 27893

NORTH CAROLINA WILD FLOWER PRESERVATION SOCIETY, INC.

Mrs. S.M. Cozart, Treasurer
900 West Nash Street
Wilson, North Carolina 27893

MEMBERSHIP APPLICATION

Regular:	\$5.00	New	[]
Sustaining:	\$25.00		
Life:	\$100.00	Renewal	[]

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____



North Carolina Wild Flower Preservation Society, Inc.
Totten Garden Center, 457-A, UNC
North Carolina Botanical Garden
Chapel Hill, North Carolina 27514

FALL MEETING
OCTOBER 24, 1982
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NON-PROFIT ORGANIZATION
U. S. POSTAGE PAID
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Permit No. 375