

NORTH CAROLINA *wild flower* PRESERVATION SOCIETY, INC.



Queen Anne's-Lace
Daucus carota

NORTH CAROLINA WILD FLOWER PRESERVATION SOCIETY, INCORPORATED

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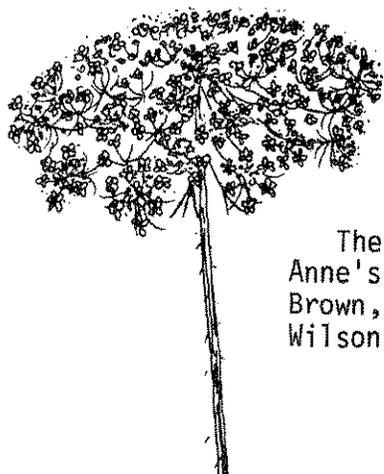
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The cover drawing of Queen Anne's Lace is by Jo Moseley Brown, artist and gardener from Wilson.

" . . . When you understand all about the sun and all about the atmosphere and all about the rotation of the earth, you may still miss the radiance of the sunset."

-Alfred North Whitehead
1861-1947

WILD CARROT

Alfred Corn

More at home than most, this immigrant
volunteers a white roadside
hedge--and what handmade lace approaches
the sparing extravagance
of those kaleidoscopic forms etched
as on crystal? You'll see them,
snowcapped halves of globe (concave, sometimes,
like Chinese bowls), and flat disks
damasked solid, or, like buttermilk
sky, dispersed. . . . Yet all are marked
with blood-dark florets at center ruff--
King Charles' memento mori.

It has features in common
with most parsleys (Umbelliferae),
their intricate, fernlike leaves
and branching taproots, ringed like earthworms,
which, snapped off, smell pungent-sweet.
What's rarity--a matter of few
numbers? Or strange perfection?
At last, exhausted with the dog days,
the flowers close up into
tight "bird's nests," bowing to the seasons,
to earth--where perfection goes
when there is nothing left to perfect.

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President's Message

The spring meeting in Asheville was memorable for several reasons. Firstly, the Society honored Tom Shinn and remembered Bruce Shinn for their long service and devotion to North Carolina Wild Flower Preservation Society. The visit to the Shinn residence and garden was a moving experience that will not soon be forgotten.

A second event at the meeting was related to the Shinns' interest in native plant propagation. John T. Soule of the Biology Department, University of North Carolina-Charlotte reported on his studies of "The Pollination Biology and Fruiting of Xanthorhiza simplicissima Marshall." John was the first recipient of the Society's Scholarship Program and his report fulfilled one of the requirements in receiving an award. The other is an abstract of his work to be published in the NCWFPS Newsletter. Those of you not present at the spring meeting will be able to ascertain the wisdom of the Society in establishing the Scholarship Program.

When Tom Shinn challenged Society members in 1973 to prepare a handbook of plant propagation he realized that there were many deficiencies in our knowledge of native plant growth and development. Research is needed on many aspects of handling native plants. What better resource than to draw on the ideas and enthusiasms of students? At the present time four student projects are supported. We look forward to learning about their findings.

More money is needed in the Scholarship Fund. Consider the tax advantages of making a contribution. The Society is a non-profit organization and is recognized by the Internal Revenue Service as eligible for tax-free gifts. I cannot say how we will fare under the proposed new tax laws. Now is the time.

G. Ray Noggle
President NCWFPS

FIELD TRIPS AND GARDEN TOURS

The Society holds two membership meetings each year--one in the fall, the other in the spring. We attempt to meet at locations of botanical interest where field trips are possible. However, it is necessary to hold these meetings where facilities are available for a dinner and an evening meeting, usually on a Saturday. Also motel or hotel rooms must be available. The Society has been fortunate in having Julie H. Moore responsible for planning these meetings; she and Nancy Hillmer made the arrangements for the fall meeting at Sanford.

However, there are many interesting areas in the State where facilities are not available for a general membership meeting. Local gardens and nature trails, public gardens, County and State parks, and private gardens may be found throughout the State. The Society is attempting to prepare a publication describing these sites. The Spring 1985 Newsletter carried a description of the program, as well as instructions for submitting information. A number of sites have been identified but more are needed. Send the information to Julie H. Moore, 518 Elm Street, Raleigh, NC 27604.

In connecton with this activity many Society members have expressed an interest in having monthly field trips and garden visits. Perhaps a program of such trips for 1987 might be published, probably as a separate newsletter. If you would be willing to arrange a field trip or garden visit in your locality, please let me know. The following information should be sent: site description (garden, nature trail, etc.), length of trip (probably a half-day, 2 hours for a local garden), your name and telephone number, other useful information (date). The local group should be responsible for obtaining permission to visit private locations.

Let's give this activity a good try. Show off your local gardens, wildflower trails, and other natural history sites.

G. Ray Noggle
President NCWFPS

QUEEN ANNE'S LACE

by

Dorothy S. Wilbur

Although considered an extreme pest by farmers whose fields are invaded by the plant, Queen Anne's Lace, or Wild Carrot, is still thought by most people to be one of the loveliest of roadside wild flowers. The plant's origin is in the Eastern Mediterranean countries and was known to early Greeks and Romans for its medicinal value. The plant's name derives from England's Queen Anne, a native of Denmark. Her early 17th century dress emphasized the use of intricate, beautiful lace, and she is said to have challenged her ladies-in-waiting to see who could create a lace pattern as beautiful as the wild carrot.

While the beauty of Queen Anne's Lace is obvious, the structure of the plant is fascinating. The flat-flower head is a compound umbel, that is, a flower cluster constructed so that all the ribs radiate from the same point, as in the case of an umbrella. On average the flower head is a collection of around 75 smaller umbels that makeup a group of 2,500 florets, each supported by its own stem. Each of these florets is approximately 1/8-inch in diameter, forming a perfect flower consisting of five petals, five sepals, a pistil, and a group of stamens. Nature writer Claire Haughton has done the arithmetic for us--finding that this means 12,500 petals on a complete umbel. Most Queen Anne's Lace plants contain four or five umbels, which add up to a total of 62,500 petals on each plant. These 62,500 petals are not symmetrical; they may be like right- or left-handed mittens or plain ovals.

The flower petals are always white, but usually there's one near the cluster of each umbel that at first glance looks black. Actually, it's purple. The purpose of this purple floret is still a scientific mystery. It is assumed that it is used as a decoy to pollinating insects. If a roving insect sees the dark spot, it may assume that there is another insect, and join it to share the nectar. This nectar is sparsely produced, and when

the insects feed in the flower, they must cover the entire surface. Consequently they spread the pollen all over the umbel.

After pollination the outer umbels form a sort of bird's-nest shape by lengthening and bending inward. The seeds begin to mature and the plant exudes an unpleasant turpentine odor to discourage subsequent insects. The bird cage dries, and the hairy seeds are dispersed. A single plant may release more than 4,000 seeds. No wonder there are so many along the roadsides! The next time you see a plant of Queen Anne's Lace, remember that it's not just a beautiful flower head, but a highly intricate collection of 2,5000 tiny florets, each a perfect flower.

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Dot Wilbur, artist and botanist, is the Program Coordinator at the NC Botanical Garden in Chapel Hill. She has a regular Monday program on Radio WUNC from which the above article was taken.

Wildflower Seeds Available

Gardeners wanting to grow wildflowers from seeds or spores can select from more than 150 varieties offered by the New England Wild Flower Society in their 1987 Seed-Sale List. To request a seed list send a self-addressed, 39¢-stamped envelope (#10, business size) to Seeds, New England Wild Flower Society/Garden in the Woods, Hemenway Road, Framingham, MA 01701.

Wildflower seeds may also be obtained from the NC Botanical Garden and from Passiflora, Route 1, Box 190-A, Germanton, NC 27019.

THE MAKING OF MY WILDFLOWER GARDEN

by

Marjorie Cheshire

I have often been asked why I spent almost seventeen years developing a wildflower garden. Wouldn't it have been easier to have used cultivated plants bought from a garden center? Yes, it was lots of hard work, but it was well worth it to me!

As a very young child my grandmother took me for walks in the woods and told me about the plants that we saw. I treasured these walks and have never forgotten the pleasure of a walk down a wooded path.

I grew up, married and moved to Raleigh, a town of about 40,000 people then, and there were lots of accessible woods. We purchased a home and I was faced with a brand new yard to develop. My new backyard was a sloping one with lots of trees. I realized that I could not have a garden of cultivated plants which needed sun. About this time, I was fortunate to visit the garden of a friend, whose situation was similar to mine. Her mother had encouraged her to develop a wildflower garden, and the garden I saw was the result of several years of gathering native plants and getting them established in their new home. The result was a lovely sloping woodland garden. Just what I wanted! My friend encouraged me and took me to one of her digging areas, an area which was being destroyed by development. She showed me how to dig, prepare the soil and plant.

I had to lay out my foot paths and border them with native rocks gathered from my digging areas and hauled home in my car. I also had to terrace my garden in order to control erosion and preserve moisture. I studied my site to learn what soil types I had, the light and the types of trees. I planted my plants which I gathered from the wild where I thought they would be happiest. I put my small plants together in colonies to create more of a show and because they seem to do better in groups. Through trial and error I found where the plants do best in my yard.

I also noticed from my walks in the woods that there were many elements that added to the beauty of the plants growing here, such things as rocks, moss, lichens, so I added some of these to my woods.

My plants do well without the supplemental feedings of commercial fertilizer. I learned early that the fallen leaves and debris create a soil nutrient relationship that the plants need. I have tried to learn and understand the needs of my native plants and to provide conditions in my garden that are similar to their native habitats. This has given me a charming low maintenance garden.

I have always tried to dig native plants from a site soon to be bulldozed and where the owner has given permission. My plants have been dug from such places as highway interchanges, shopping centers and housing developments. Saving these plants has given me and my friends the opportunity to experience the beauty and pleasure of native plants which once thrived in many areas around Raleigh and Cary. I have my own small woods where I can relax--be alone--and renew myself.

I have had youngsters come to my garden to draw or take pictures of some of the native plants for a paper they had to do on "Native Wildflowers." They seem to enjoy discovering plants which they have never seen and are surprised at how lovely native plants can be. I feel I have made a small contribution to their awareness of our natural environment and the importance of conserving it.

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Many of our members visited Marjorie Cheshire's beautiful garden last May when it was included on the Mordecai Garden Symposium's Garden tour. We were all impressed with the diversity of plants and how well grown they were. (Ed.)

BOTANIZING IN THE BUTNER AREA

by

Harry E. LeGrand, Jr.

During the spring and summer of 1986 I was able to spend numerous hours afield in Granville, Durham, and Person counties searching for natural areas, rare plants, and rare animals. The N.C. Natural Heritage Program was awarded a contract to conduct a biological inventory for the proposed siting of a Superconducting Super Collider. (The super collider would be a 60-mile circumference "ring" perhaps 100 feet below land surface, within which protons are hurled at high speeds and "busted"; to the scientific community, the "proton buster" would be high-technology research.) I was selected to conduct the biological inventory.

Although my study area covered about 500 square miles (the area of a medium-sized county), I spent a preponderance of time in the Butner area, because this town sits right on top of a diabase sill! Diabase is a rock that weathers to produce circumneutral or basic soils, as opposed to the acidic soils that cover perhaps 95% of North Carolina. As a result, many of the plants and natural communities in the Butner area are quite rare in the state. Butner is also unusual in that it is a "public" town; all lands there are owned by public agencies such as the N.C. Department of Agriculture, N.C. Department of Human Resources, and the U.S. Army Corps of Engineers.

It didn't take me long to find rare plants or unusual natural communities at Butner. About a mile north of the Murdoch Center, I was along a powerline clearing in March when I saw large numbers of prairie dock (*Silphium terebinthinaceum* leaves, and more importantly, several dozen old flowering stalks of smooth coneflower (*Echinacea laevigata*). Both species are rare in the state, and the coneflower is a candidate for Federal listing. This trip, and several additional trips to adjacent woodlands just off the powerline, produced large numbers of other rare "prairie" plants (species characteristic of open places on dry basic soil and occurring mainly west of the

Appalachians). Hoary puccoon (*Lithospermum canescens*), blue wild indigo (*Baptisia australis*), and low wild-petunia (*Ruellia humilis*) were other rare "prairie" plants that I found in the open pine and cedar woods near the powerline in spring and summer. An unusual Barbara's buttons (possibly *Marshallia grandiflora*) was also seen there; its identity awaits study by experts. However, the most notable find occurred in September, when I was making a routine check of the area for additional species of composites. I encountered an aster I had never seen before, and with good reason--it isn't listed in Radford, Ahles, and Bell's Manual of the Vascular Flora of the Carolinas: The species is white upland aster (*Aster ptarmicoides*) a Midwestern plant of prairies and glades that seemed to find Butner's diabase suitable for habitation.

Another section of Butner where diabase occurs near the surface is the vicinity of Knap of Reeds Creek, just west of the town. The rich floodplain of this creek contained several large patches of Dutchman's breeches (*Dicentra cucullaria*) and Douglass' bittercress (*Cardamine douglassii*). Above the floodplain, especially in openings provided by sewer lines and telephone lines--(normally I despise clearings in forests for such utilities)--were more of the rare "prairie" plants, including another large population of smooth coneflower. In fact, I named one spot as "Hot Corner," because within 200 yards of it one could find the coneflower, prairie dock, hoary puccoon, bittercress, nestronia (*Nestronia umbellula*), American ipecac (*Gillenia stipulata*), Earl's blazing star (*Liatris squarrulosa*), and Carolina thistle (*Cirsium carolinianum*), all of which are rare in North Carolina.

Probably the most unusual and significant site over diabase occurs in the southern section of Butner along SR 1100 and the railroad tracks. This site at first glance resembles a granite flatrock without the rock. The trees, mostly red cedars, are very scrubby, and openings among the trees are gravelly and vegetated in forbs and grasses. The "glades" among the trees contain many rare plants. Not only did I find several rare

"prairie" plants, but I was stunned to discover a few granite flatrock plants, particularly the rare Small's portulaca (*Portulaca smallii*), on which had never before to my knowledge been found in the state on diabase-derived soils. The most exciting plant found, thus far, in this Diabase Glade natural community is false pennyroyal (*Isanthus brachiatus*), which apparently had not previously been reported for certain from North Carolina. I actually was "scooped" on the pennyroyal. I discovered a large population on the glades in early September, only to find that a Duke University graduate student had found the species there the previous week! Among other notable plants on the glades, and in open woods on the other side (east) of the railroad tracks, were veined scullcap (*Scutellaria nervosa*), small skullcap (*Scutellaria parvula*), false aloe (*Agave virginica*), and a large population of low wild-petunia.

Even though my work officially ended in June, I still find myself drawn to the Butner diabase every few weeks, as my home in Raleigh is just 40 minutes away. I, and other colleagues at the N.C. Natural Heritage Program, have visited these sites during the summer and fall (1986) and have gathered considerable data on plant species and natural community classification. However, much work remains to be done, especially the task of protection of these diabase natural areas. It is hoped that the various state and Federal agencies, on whose land the sites are located, can work with the Heritage Program to ensure that these important natural areas remain in their present stage for future generations of botanists and naturalists to study and enjoy.

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Dr. LeGrand is a well known birder turned botanist. He is currently the zoologist with the N.C. Natural Heritage Program in Raleigh.

DISCOVER AUTUMN IN THE SANDHILLS

by

Craig Moretz

As cooler weather ushers in autumn, roads headed west become jammed with people making an annual trek to see the mountains draped in tapestries of color that only Mother Nature could conceive and weave along the chain of the ancient Appalachians. Yet an autumn show that is not soon to be forgotten can be found even closer to home for many North Carolinians and most assuredly without the heavy traffic--all too common in the mountains these days. If you haven't already guessed, I'm talking about the Sandhills. Imagine, if you will, gently rolling hills scattered with open patches of snow-white sand. Towering above with their progeny rising to various heights all around, the long-leaf pine gleaming a deep emerald green in the late autumn sun dots the landscape. As the nights of autumn grow cooler, a third and major component of the landscape transforms into its autumn brilliance. Intermingled with the dark green of the pines and the shining white of the sand is the brilliant red of the turkey oaks. Reminiscent of a Van Gogh painting, bold splashes of burning red against a backdrop of green and white tantalize the mind with stunning brilliance. Truly an autumn display of color not to be missed. Some of the better areas to see the Sandhill show are along Highway 242 just north of Jones Lake State Park, all around the Southern Pines area, and also along Highway 421 north of Wilmington. So treat yourself this autumn to a trek not to the mountains, but to the Sandhills for an unforgettable autumn color display.

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Craig Moretz is a botany student and was awarded the Society's scholarship to study the mountain sweet pitcher plant. He attributes his interest in insectivorous plants to his visits with Herbert Smith, one of the Society's original members who died last year.

MORE ON THE SWAMP BEHEMOTHS IN BLADEN COUNTY . . .

by

Steve Leonard

Information received in late July from University of Arkansas' David Stahle, a dendrochronologist who uses baldcypress growth rings in his research, has caused much excitement in our office. Last winter, Stahle and his staff obtained increment borings from baldcypress trees along the Black River which separates Pender and Bladen Counties. Attention has been drawn to this area by the Natural Areas Inventory of Pender County, North Carolina (1981) in which the authors describe giant baldcypress trees located in a deep swamp near NC Highway 53.

According to Stahle, the oldest trees sampled are nearly twelve hundred years old--unsurpassed in age by any other known living areas in eastern United States and Canada. The only other stand mentioned by Stahle as approaching the Black River monarchs in age is the impressive baldcypress grove of Four Holes Swamp, South Carolina, and these trees, though larger, are approximately a thousand years old. The Black River trees give very strong climate records, and nearly every core has countable growth rings. In contrast, trees from the Deep South seem to show growth ring anomalies, and many increment sections are faulty.

The University of Arkansas researchers also report that the size of trees does not necessarily correlate with age; other baldcypress trees in North Carolina are equally as large as those in the Black River swamp, but few are more than half as old. Furthermore, Stahle's research shows that even though the giant trees grow in water, they still respond to drought years by adding little growth, in the similar manner of upland trees. The reasons for this phenomenon are not understood.

The search for stands containing a minimum of 20-25 old-growth baldcypress trees will resume in eastern North Carolina during August. Anyone with information about potential candidate timber stands in river swamps or Carolina bays should contact the Natural Heritage office in Raleigh.

SCHOLARSHIP FUND PROJECT

Laura Anne Buchanan--UNC-CH

In vitro Propagation of Two North Carolina Native Plants

A. In vitro propagation of *Chrysogonum virginianum*.

Chrysogonum virginianum, a wildflower species commonly called green and gold, is native to the central eastern United States and very desirable for wildflower gardens because of its long blooming period. Seed germination percentages, however, usually are very low (5-10%) making an alternative propagation procedure useful. In this study, propagation by tissue culture methods proved an excellent means for obtaining shoot multiplication and root development although more research needs to be done to determine the best method of hardening off the plantlets to obtain normal growth in soil.

Seeds were cleaned by hand and soaked for 24 hours in distilled deionized water. The seeds were then surface-sterilized as follows: 1 minute in ethanol, 7 minutes in 20% Chlorox solution, and 1 rinse in sterile deionized water. The seeds then were placed on agar in sealed Petri dishes and put under a combination of white and ultraviolet light at room temperature (24°C).

Some of the dishes were subjected to a cold stratification of 3 weeks at 12°C in the dark. When subsequently moved to light at 24°C they had a higher germination percentage than the unstratified seeds.

Contamination was a problem and seemed to come from within the seeds. However, it was possible to select uncontaminated seeds for further study. Seventeen days from first plating, when the seed coats began to split, seeds were removed under sterile conditions. The coatless seeds were resterilized and placed on an agar-based gel medium fortified with sucrose, plant growth substances, and/or vitamins.

Seedlings were initially placed on media which would induce shoot multiplication but not root growth. Of the various media tested, one with a very high cytokinin:auxin ratio (100/1) gave the best results.

Large healthy shoot clumps were divided as necessary. One particularly vigorous clump which exhibited good color, leaf shape, and pubescence was first divided 11 weeks after coatless seeds had been plated onto agar. The first division yielded 15 shoot clumps (from 1 to 10 shoots per clump). Nine days later, division of these clumps yielded 54 clumps. The 54 clumps were divided to 130 eight days later. Overall, 130 shoot clumps were obtained from one original clump in 17 days, or from one seed in just over 3 months. This suggests a theoretical multiplication of 6.65×10^{33} shoots or shoot clumps from one seed in one year. The actual figure would be lower due to inconsistency among the shoot clumps. Not all are as vigorous as the original plantlet. In addition, not all of the plantlets produced would have desirable characteristics of leaf shape and texture.

The largest and best formed shoots were rooted by placing on a medium containing indolebutyric acid with no cytokinin. Roots also formed under conditions where no hormones (auxin or cytokinins) were present. Between 2 and 3 weeks after transfer, roots began to develop. A large root mass generally was obtained within a month. These plants were removed from the media, rinsed to remove traces of the gel, and planted in a soilless mix of peat, vermiculite, sand, and bark chips in clear plastic boxes. Only a few plants had reached this stage by the writing of this paper (May 20, 1986). Several died of apparent rot or fungus, and those surviving exhibited little or no growth in the first 2 to 3 weeks. However, most began producing new growth in 4 to 8 weeks.

Tissue culture can be a powerful technique for shoot multiplication in *Chrysogonum virginianum* although some morphological anomalies do result. A medium containing a high cytokinin: auxin ratio gives the best results. Shoots may be successfully rooted on a minimal organic medium or one containing the auxin indolebutyric acid. A precise method of hardening off the plants for growth in natural conditions is yet to be determined.

B. In vitro propagation of **Asarum canadense**.

Apical growing points of **Asarum canadense** were excised and sterilized as follows: 1 minute in ethanol, 5 minutes in 20% Chlorox solution, and 1 rinse in sterile deionized water. They were cultured on agar containing inorganic nutrients, sucrose, benzyladenine (a cytokinin), adenine sulfate, and either indole acetic acid or naphthalene acetic acid (auxins). The cultures were placed in the dark (to prevent over-production of phenolics) at room temperature (24°C) for three weeks and then moved into light.

No growth was evident during the first month. During the second month, however, from 1 to 4 shoots developed on the isolated apical meristems (growing points). More shoots developed on the medium containing naphthalene acetic acid rather than indole acetic acid.

After 6 weeks, one plantlet was subcultured to 4 shoots, and 4 weeks later one of these was divided into 9 more shoots. Though this multiplication rate does not approach that observed for **Chrysogonum virginianum**, this research is still in its early stages and no conclusions can be drawn yet regarding the numbers of shoots attainable. Shoots of **Asarum canadense** are slower to develop in vitro than shoots of **Chrysogonum virginianum**.

All of the shoots had normal color and leaf characteristics at least initially though some deteriorated with time, turning yellow or brown, or curling.

None of the plantlets were at the rooting stage as of May 20, 1986, when this report was prepared.

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The above account was abstracted from a longer paper submitted by Laura Anne Buchanan. This paper contained complete experimental procedures and a list of all the various growth media used.

MINUTES OF THE NCWFPS SPRING MEETING

May 2-4, 1986

Asheville, North Carolina

The spring meeting of the NCWFPS was held in Asheville in association with the Fourteenth Spring Wildflower and Bird Pilgrimage. Sponsors were University of North Carolina at Asheville, Blue Ridge Parkway, and University Botanical Gardens at Asheville. Society members were able to participate in a variety of field trips. A highlight of the weekend was a visit to the wildflower garden at the Thomas S. Shinn residence in Leicester. (See an account of the field trips and the garden visit by Bob Tuggle.)

On Saturday, May 3, 1986, the Society hosted a buffet dinner and program at the Folk Art Center. About 60 persons attended the dinner and more came for the evening program. The spring meeting honored Thomas S. Shinn and the memory of his wife, Bruce. Guests included Tom's sister, Annette, and his son, Thomas S. Shinn, Jr., Mr. and Mrs. Richard Smith, Mr. and Mrs. Frank D. Bell, Sr., and Mr. and Mrs. Charles F. Moore.

A brief business meeting was held. Thanks were extended to Dr. Jim Perry of the Biology Department, UNC-Asheville, for assistance in arranging the weekend meeting and to Ms. Donna Beck, Convention Connections, Inc., for helping with motel reservations and arranging the buffet dinner.

Minutes of the September 8, 1985, Board meeting and description of the meeting at Beaufort, N. C., were printed in the fall 1985 Newsletter. The spring 1986 Newsletter carried a report of the February 9, 1986, Board meeting. These were approved as printed. The Treasurer, Gretchen Cozart, gave a brief summary on the state of the treasury.

As part of the Society's recognition of the services of Tom and Bruce Shinn to the North Carolina Wild Flower Preservation Society, brief remarks were made by Frank D. Bell, Sr., Charles F. Moore, and Dr. Larry Mellichamp.

John Soule, student in the Biology Department, UNC-Charlotte, reported on his research, "The Pollination Biology and Fruiting of *Xanthorhiza simplicissima*." John was the first recipient of a Scholarship Award from the Society. His research and report set high standards for other students in the program. We expect to publish a summary of his research in the Society Newsletter.

The evening concluded with a superb slide-illustrated talk, "Mountains of Wildflowers," by Richard M. Smith. His contribution to the program in memory of the Shinn's was greatly appreciated by their friends and colleagues.

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NEW BOOK ON ENGLISH FLORA

The Frampton Flora, by Richard Mabey (Prentice Hall). This is an album of Victorian watercolors of wildflowers native to southwest Gloucestershire, and it is remarkable for the exquisite beauty of the paintings and for the story that lies behind the collection. It was discovered four years ago in an attic at Frampton Court, an estate near the Severn River which had been in the Clifford family for eight hundred years. The artists were four sisters of the family and several of their aunts, working in the late eighteen-thirties and the forties; the pictures were painted "from life," after rigorous searches of woods, riverbanks, and grasslands in the neighborhood of Frampton Court. Then the watercolors were put away and forgotten. The hundreds of flowers, which look as fresh here as the day they were painted, include many that we know in America--wild strawberry and violets, columbine, forget-me-nots--and many that are less familiar: mallows, worts in profusion, and flowers with wonderfully odd names such as "lady's bed-straw," "mouse-ear hawkweed," "cuckoo's bread and cheese," and, queerest of all, "welcome-home-husband-though-never-so-drunk."

This book is available through the Garden Book Club, 250 West 57th Street, New York, NY 10107 or from local book stores. (Ed.)

NCWFPS SPRING WEEKEND FIELD TRIPS

by
Bob Tuggle

Frost removal from our windshields was the first order of business Saturday morning. On May 3rd the ground was covered with a heavy layer of frost and most of us donned our longjohns for the early hikes. The birdwalk/wildflower combo and the nature tour for hikers left at 8 o'clock. I went with the large wildflower motorcade headed leisurely toward Craggy Gardens while others attended fern, mushroom, tree, photography, or ecology offerings.

In spite of the drought our guide, Gussie Carrell, found plenty of the area's flora to show. Our first stop was at a patch of white bird's-foot violets growing near a bed of mocassin flowers. We continued along a part of the Parkway dotted with trilliums and beautiful masses of *Phacelia dubia* and parked beside a stand of the taller, darker purple, *P. bipinnatifida*. Mock orange, delphinium tricorne, and an unusual trillium were also among the occupants here. After careful inspection using a hand lens and trillium key, one hiker dubbed this trillium, with white nodding bloom and dark ovary, to be *Trillium rugellii* (Rendle). While the rest of us were enjoying the flowers, Olivia Rich tried to explain to a park ranger what all our cars were doing parked on his section of the Parkway.

Our next stop was north of the Tanbark Tunnel where shooting stars were in bloom along with squaw root, spring beauties, the stoloniferous chickweed, and *Stella corei*. Scattered patches of *Trilliums erectum* and *T. grandiflorum* also appeared along the way. The variability of both species was very apparent, especially the light brown petals and the canoe shaped sepals of some of the *T. erectum* variations.

Enraptured naturalists around an area bountiful with the increasingly rare fumitory, squirrel corn, evidenced an attraction for the plant shared with the forest's rodents. The bright yellow corms of squirrel corn which

look like fat kernels of corn, give this plant its name and supply animals a clue to its value as forage. Another *Dicentera*, Dutchman's breeches, was growing in very close proximity, separated from its cousin only by a slightly different blooming time.

At Craggy Gardens, where the elevation allows a transition equivalent to driving north to the Canadian border, we had a picnic lunch. Gussie, the guide, supplied ramps for the group to sample. Most of us had already heard of their reputation of causing odoriferous perspiration. We enjoyed them anyway.

The day warmed and the group headed for the Shinn Garden. Nestled in the mountains near the town of Leicester (pronounced Lester), Tom Shinn and his late wife Bruce, have accumulated through rescues, trades, and propagation, an immense collection of the flora of the southern Appalachians. Various habitats display wild gingers, Carolina silver bells, climbing ferns, golden seal, pitcher plants and probably a dozen species of trillium. One was a trillium with petaloid sepals, stamens, and petals. Bruce's white phlox, a white variety of *P. stolonifera*, was discovered by Mrs. Shinn in these hillside coves 25 years ago. Many wildflower gardeners have the Shinns to thank for specimens which they enjoy in their own gardens and in the Asheville Botanical Garden.

The Saturday night banquet, held in honor of the Shinns, allowed a warm meeting of old and new friends. Frank Bell, Sr., Charlie Moore, Larry Mellichamp, and Harry Phillips joined Ray Noggle in sharing anecdotes and historical information about the formation and evolution of the Shinns' famous garden.

The topic turned to grant projects awarded by the NCWFPS. Craig Moretz told us of his efforts with *Sarracenia jonesii* and the battle of the poison sumac. Through propagation and field distribution studies, Craig gathers valuable information focused on the fragile endemic pitcher plants. John Soule's slide presentation illustrated the results of his study of shrub yellow

root. Midges and fungus gnats were among the suspects he listed as possible pollinators for this little studied genus.

The main course for the evening was Mountains of Wildflowers: this being the title of Richard Smith's edifying slide lecture. He featured a tour of the N. C. mountains and included plants from Mt. Mitchell, Mt. LeConte, and the North Carolina and Tennessee countryside. Shell azalea, mountain cranberry, hobblebush and minniebush were included along with the herbaceous species.

Sunday morning and more frost. Everyone scattered in search of last day spectacles but a lot of the NCWFPS members converged at the Asheville Botanical Garden. Celandine and lesser celandine, hexastylis and asarum, yellow lady slippers and Indian ghost pipes provided the backdrop for bunches of bunnies playing leapfrog along the wooded trails and in the open grass of this pleasantly designed facility. New and intriguing foliage just coming up gave promise of this being a garden trip worth repeating.

Weekend's end: Some of us headed into the sunset, some of us headed for the swamps, but everyone left looking forward to the next get-together this fall.

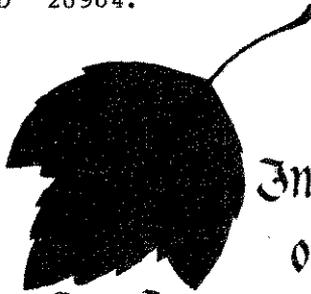
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Plant Recognition and Identification Workshops, 1987

Dr. Robert H. Mohlenbrock will be offering week-long plant identification workshops in upland or lowland flora at Carbondale, Illinois, during late spring and summer of 1987. Contact Dr. Robert H. Mohlenbrock, 1 Bird Song Drive, Route 6, Carbondale, IL 62901, or call 618-549-1884.

NEW NATIVE PLANT SOCIETY FORMED

The Maryland Plant Society (MNPS) is a rather new organization joining the ranks of those groups dedicated to preserving native flora in their respective states. Through the dissemination of information, including the publication of a newsletter, the MNPS hopes to develop public awareness of Maryland's rare and endangered plants. Articles and photographs for the newsletter are contributed by readers or by the officers of MNPS. Memberships cost \$10 per year, and include a subscription to the newsletter, **Maryland Native Plants**. For further information on other membership options, write the Maryland Native Plant Society, 14720 Claude Lane, Silver Spring, MD 20904.



In this season
of the year,
when the air is crisp and pleasant,
it were an injury & a sullenness
against Nature not to go out
and see her riches,
and partake in her rejoicing
with heaven and earth.



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