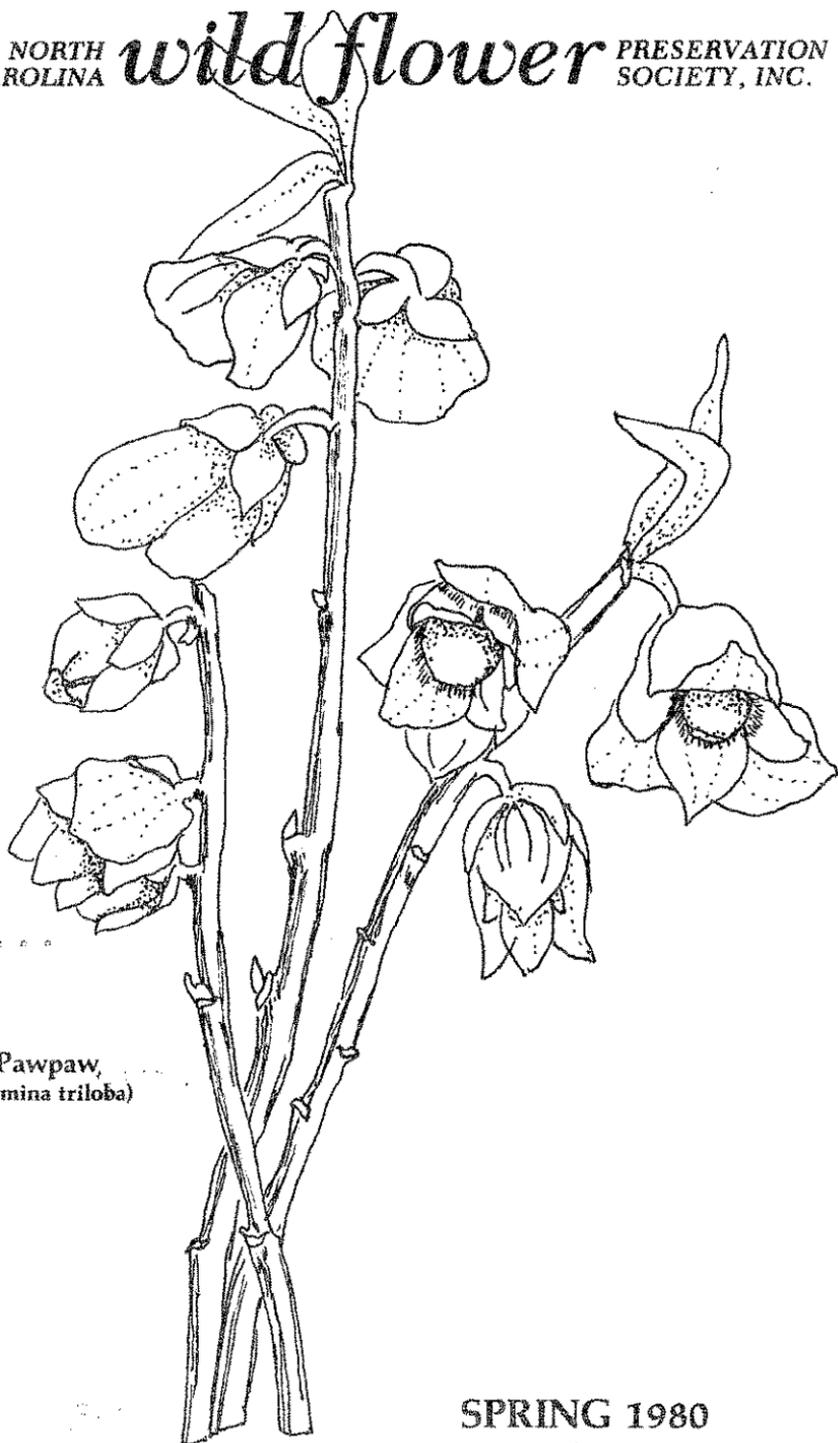


NORTH CAROLINA *wild flower* PRESERVATION SOCIETY, INC.



Pawpaw,
(*Asimina triloba*)

SPRING 1980

NORTH CAROLINA WILD FLOWER PRESERVATION SOCIETY, INCORPORATED

Emily Allen, President
1466 Oldtown Road
Winston-Salem, N.C. 27106

Julie H. Moore, Director '78
410 Elm Street
Raleigh, N. C. 27604

Flora Ann Bynum
832 S. Main St.
Winston-Salem, N.C. 27101

Bruce Shinn, Director '78
Rt. 1, Box 321-A
Leicester, N.C. 28748

Clara Murray, Rec. Sec.
304 Delafield Ave.
Durham, N.C. 27704

Thomas H. Jones, Director '79
409 Midland Way
Laurinburg, N.C. 28382

Gretchen Cozart, Treasurer
900 West Nash St.
Wilson, N.C. 27893

T.L. Mellichamp, Director '79
Biology Department
UNC - Charlotte
Charlotte, N.C. 28223

Lucille Grassia, Corr. Sec.
1920 Buena Vista Road
Winston-Salem, N.C. 27104

Harry R. Phillips, Director '79
317A Pine St.
Carrboro, N.C. 27510

Eleanor Pegg, Historian
32 Mt. Bolus Road
Chapel Hill, N.C. 27514

Gordon Butler, Consultant
Rt. 7, Butler's Nursery
Fayetteville, N.C. 28306

Nell Lewis, Publicity
907 Greenwood Drive
Greensboro, N.C. 27410

Herbert Hechenbleikner, Consultant
1701 Wendley Drive
Charlotte, N.C. 28210

Lionel Melvin, Director '78
P.O. Box 313
Pleasant Garden, N.C. 27313

Tom Shinn, Consultant
Rt. 1, Box 321-A
Leicester, N.C. 28748

NEWSLETTER STAFF

EDITOR

Linda M. Lamm
903 Raleigh Road
Wilson, N. C. 27893

EDITORIAL STAFF

Harry Phillips
317A Pine Street
Carrboro, N. C. 27510

Patricia Ross
1804 Chelsea Drive
Wilson, N. C. 27893

CONTENTS

President's Message	2-3
The Pawpaw Tree	4-6
Jeffersonia Binata (Twin Leaf)	7-8
Vanilla Plant	9-11
More About Trilliums	12-16
Wildflower Seed: A Valuable Natural Resource	17-23
Observations on Purslane	24
The Ferns of Spring	25-27
Davidson County Community College Natural Garden	28-30
Books of Interest	31-32
Minutes of Fall General Meeting	33
Minutes of Spring Business Meeting	34-35
N. C. Wildflower Preservation Society Addendum	36-38
Announcements	39
New Members	40-41

ILLUSTRATIONS

Cover and Drawing of Pawpaw leaves, flower, fruit,
and twig by Georgia Chapple, Wilson, N. C.
Fern by Jo Brown, Wilson, N. C.
Special thanks to Rachel Preston of Hillsborough, N.
C. for drawings of Touch-me-not, Columbine,
Jack-in-the-Pulpit, Milkweed, Vanilla Plant and
Calligraphy.

PRESIDENT'S MESSAGE - SPRING 1980

It was a landmark for our state to pass, at long last, a Plant Protection and Conservation Act during the 1979 legislative session. We are indeed grateful to Dr. Ritchie Bell for his dedication and efforts in getting it passed.

A Board was created by the Act, along with a Scientific Committee, and these groups were given a mandate to compile a list of endangered species and the legal means to conserve and protect specified plants within the state. I was appointed to serve on this Board as a representative of the North Carolina conservation organization. Ken Moore is serving on the Scientific Committee as a representative from the North Carolina Botanical Gardens.

Previously there existed no agency specifically responsible for the protection of endangered and threatened plant species. In 1975, a symposium sponsored by the State Museum of Natural History compiled a list of endangered and threatened plants and animals in the state. A list was made of 91 plant species of primary concern, along with 313 peripheral species which are rare in North Carolina. In 1976, the North Carolina Natural Heritage began an inventory of these symposium listed rare plant species. The inventory includes a record of locations, occurrences, ownership, and biology. Their program has amassed information on more than 400 plant species in a computerized data bank. This data will be invaluable to the Scientific Committee who must compile a list to be submitted to the Board.

While we are concerned about the endangered and threatened species, we must also consider the many showy wildflowers exploited, such as Orchids,

Lilies, and Trilliums. Ginseng and Venus Flytrap will be offered some protection, but it may be some-time before there can be effective means of control for this special category.

An example of this is the highly advertised and coveted Pink Ladyslipper. This orchid may be found growing by the hundreds, but it is almost im-possible to successfully transplant it, due to its special requirements which we do not completely understand. Even a reputable wildflower nursery-
man states that the transplanted Ladyslipper does well the first year in his beds, fairly well the sec-
ond year, poorly the third year, and disappears the fourth year. Those thousands dug from the wild are a complete loss.

It behooves us all to educate ourselves and others to conserve and protect the exploited species. I urge our members to become more involved in propagation by seeds, cuttings, and division. Harry Phillips reports that 25% of our members sent in requests for seeds--a big increase over last year.

Nature has endowed North Carolina with bless-ings beyond measure. This is our heritage to enjoy and share. I encourage all of you to continue to pur-sue the educational process in order to conserve this heritage and propagate those endangered, threatened, and exploited species.

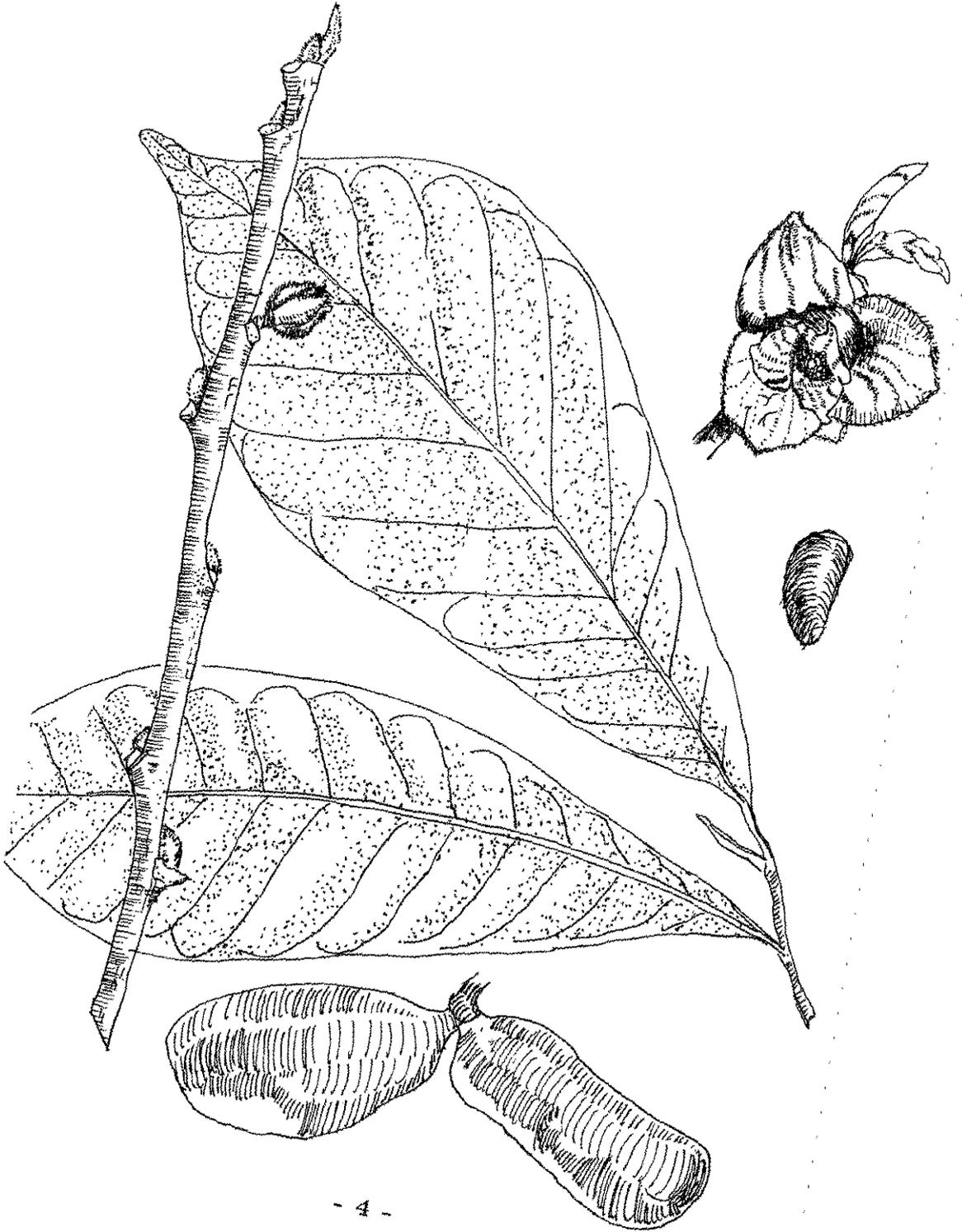
I'm looking forward to seeing you May 24-25 at the Biological Station at Highlands, North Caro-lina.

Emily Allen, President

+ + + + +

There is not a sprig of grass that shoots uninterest-
ing to me.

Jefferson to Martha Jefferson Randolph
(1790)



THE PAWPAW TREE

by
Pattie Warren

It is really not a tree, but, with us,
"trees."

About three years after we had moved into our home on Hillsborough Street in Chapel Hill, approximately 1925, my husband, Ben Warren, went into the northern Orange County woods with my father, Dr. Spurgeon of Hillsborough, to get some native plants. My father was a pioneer dentist, who had hunted birds very successfully all through that part of the county, and he was well acquainted with the trees and plants. He knew Ben's interest in plants and offered to take him on "a dig". On this particular dig, they found Styrax grandiflora and Pawpaw. Both trees have lateral roots and tend to become a thicket or a hedge.

Ben planted the Pawpaw at the west end of the stone wall in front of our house. In the years that have passed, our small Pawpaw has marched along the stone wall, passed the large elm tree, mingled with the syringa and spirea, gone under the slate rock walk that leads from the street to the house, and started up the other side of the wall. The trees form a perfect screen from the dust and noise of the roadway.

The Pawpaw, often called Indian banana, grows from 20 to 40 feet in height. Ours is now 25 or 30 feet tall. It has long, large leaves, shaped somewhat like the magnolia, that grow in whorls like some species of magnolia. When the leaves grow yellow in the fall, they have a spicy fragrance. I have gathered and crushed them and put them in

muslin or cheesecloth bags and used them among my lingerie or sheets.

The small mahogany red blossom with a yellow center is square in shape, about three-quarters of an inch or an inch across, and produces the banana-like fruit which is greenish yellow in color. The custard-like flesh is embedded with numerous large seeds. I have never been able to elicit from my friends much enthusiasm for the sweetish taste of the fruit, but the flower is lovely and, when combined with the lily of the valley which blooms about the same time, makes a lovely corsage at Easter. When they did bloom at the same time, Ben made my Easter corsage from that combination, and on a brown suit, it was perfect.

Through the years, many friends have tried transplanting the Pawpaw. Rob Gardner of the Botanical Garden, and Linda Lamm of Wilson, are the only ones among many who have done it successfully.

The North Carolina Native Plant Propagation Handbook says, "Transplanting can be done satisfactorily when the spreading superficial roots are severed one to two feet from the plant one season before moving." The Handbook also gives the botanical name of the Pawpaw as Asimina triloba.

+ + + + + + + + +

Pattie Warren and her late husband, J. A. Warren, were charter members of the Wild Flower Preservation Society. Her vitality and sustaining participation make her an invaluable member and an inspiration to the Society.



JEFFERSONIA BINATA
(Twin Leaf)

JEFFERSONIA BINATA
(Twin Leaf)

Benjamin Smith Barton—Read before the American
Philosophical Society, May 18, 1792

From the account which I have given of this plant, I
have little doubt that you will agree with me in con-
sidering it as a genus, distinct from the Sanguin-
aria and the Podophyllum, to both which, however,
it must be confessed, it bears considerable relation.
As I have not found it described by any authors,
except Linnaeus and Clayton, neither of whom had
seen the flowers, and as it is, certainly, a new
family, I take the liberty of making it known to the
botanists by the name of

Jeffersonia,

in honour of Thomas Jefferson, Esp., Secretary of
State to the United States.

I beg leave to observe to you, in this place, that in
imposing upon this genus the name of Mr. Jefferson,
I have had no reference to his political character, or
to his reputation for general science, and for liter-
ature. My business was with his knowledge of
natural history. In the various departments of this
science, but especially in botany and zoology, the
information of this gentleman is equalled by that of
few persons in the United States.

Of the genus which I have been describing, we, as
yet, know but one species, which I call

Jeffersonia Binata.

+ + + + +

Thomas Jefferson, 1743-1826, President of the United
States, 1801-1809. A great man of many parts, he was
an outstanding plantsman and patron of botany with deep
interest in horticulture and farming.

IN SEARCH OF THE VANILLA PLANT

(Trilisa odoratissima)

by

Jeannie Wilson

At first glance, the Vanilla Plant seems innocent enough. The bright purple heads in autumn tell you right away that it is a member of the Aster family. While in flower, the stems may be up to two meters tall, making it easy to spot from the road. When not in flower, look for a basal rosette of glabrous, elliptic leaves with red veins. The Vanilla Plant grows happily in savannahs, lumbered pine plantations, and sandy woods on our coastal plain.

The unusual and desirable feature of the Vanilla Plant is that the dried leaves have a very strong vanilla-like odor. My first exposure to just how potent the odor is was when I was collecting herbarium specimens during my research project in the Croatan National Forest. When I opened the drier to empty my plant press, the strong vanilla smell just about knocked me down!

This strong vanilla odor caused quite a stir in the tobacco industry, according to Charles McNeill, director of the Hampton Mariners Museum in Beaufort, North Carolina. About 15 years ago, while he was operations manager at the Morehead City port, they did business with the Thailand Tobacco Monopoly. In addition to buying tobacco, the company also bought Vanilla Plant leaves to flavor the tobacco. A tobacco firm in Robersonville, North Carolina, harvested Vanilla Plant to be baled and shipped to places like Thailand. The bales would contain 50 to 75 pounds of leaves, and one shipment may contain as much as 25 tons!

It is hard to imagine that enormous quantity of leaves, considering that it is not extremely abundant--if it ever was!

During one trip to the Morehead City port, the general in charge of the Thailand Tobacco Monopoly wanted to see what the Vanilla Plant looks like growing in the wild, and perhaps try growing some at home. So Charles McNeill graciously took the general and a group of about ten people on an expedition to the Croatan National Forest to find the prized plant. The enthusiastic group "ooo'd and ahh'd" over all the strange and unusual plants in the area, especially the carnivorous plants. The trip was made more enchanting by the presence of the beautiful Oriental daughter of the general, wearing her native costume. She was fascinated by all the species of wildflowers there. I wish very much that I could have been on that expedition!

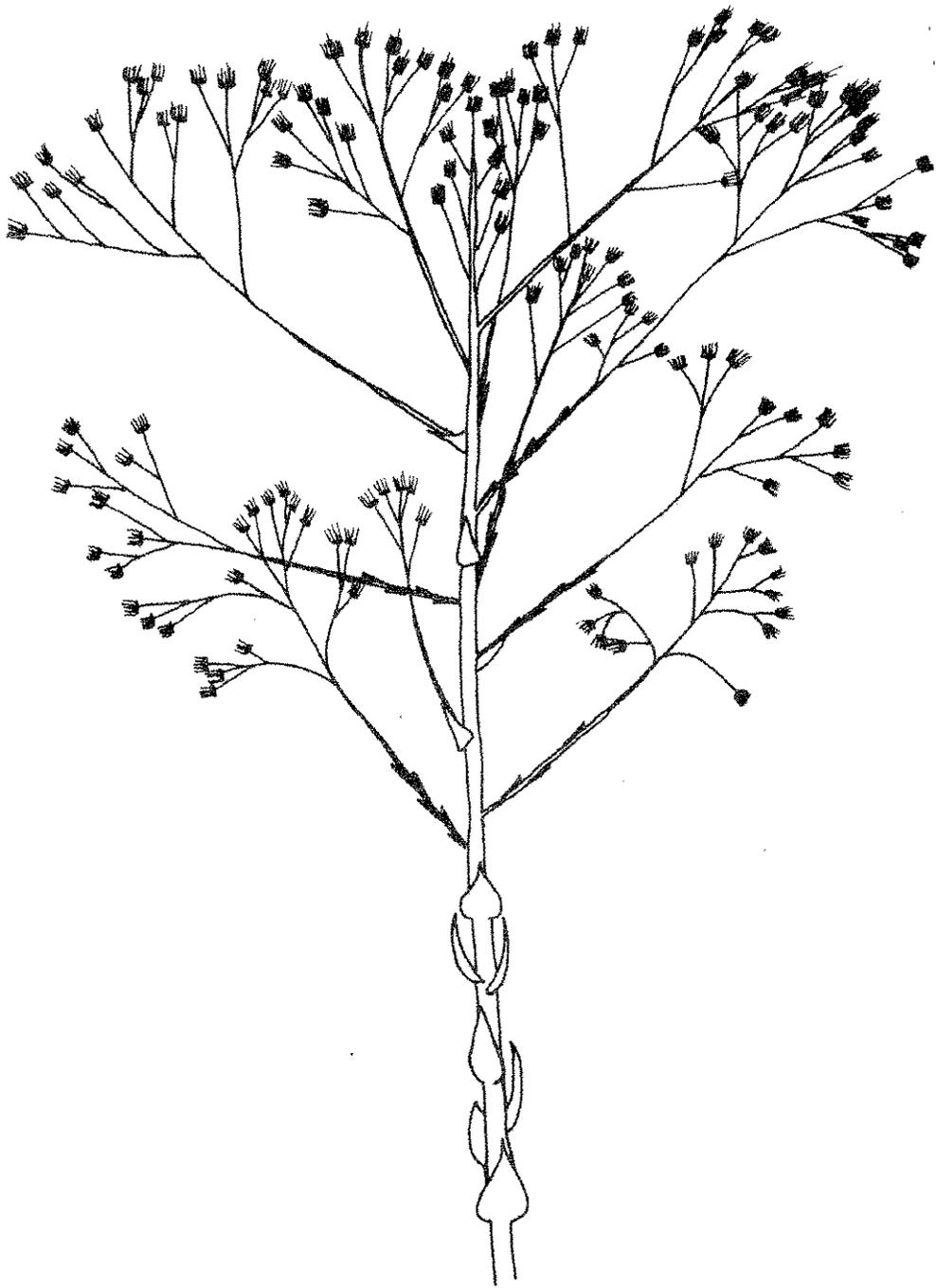
Needless to say, it is not hard to imagine that the population of the Vanilla Plant dwindled considerably during the period of popularity of its use for tobacco flavoring. Thank goodness, there are folks around who make sure that our wild plants are no longer exploited in that manner!

+ + +

Jeannie Wilson is Staff Botanist at Hampton Mariners Museum, Beaufort, N. C., and a past contributor to The Newsletter.

+ + +

The Vanilla extract we use, with its pleasant fragrance and taste, comes from the dried seed pod of the orchid Vanilla planifolia grown in Florida and throughout tropical America. (Editor's note).



Vanilla Plant

MORE ABOUT TRILLIUMS

by
Edith Dusek

My interest in Trilliums began many years ago when I was a prairie child in Illinois. It came to a head one winter when I set out to read all that the library could dig up on the subject. It did not take long to discover that quite a number of articles were at odds with each other. This piqued my interest to the extent that I still automatically turn first to anything which refers to Trilliums.

Trillium season commences here in February, and August finds me still making photos and notes on variations displayed by the fruits of the different species. When one stops to look--really LOOK--it does not take long to discover that there is a great deal which seems never to have been observed before--or at least that no one has put down on paper. After taking the long look over several seasons, one cannot help but be at odds with at least some of what has been printed. I discovered that some of our western sessile trilliums simply could not pass the physical as delineated by various authorities. Correspondence thither and yon subsequently brought me into contact with a botanist who is also interested in the genus. After he had seen the plants in various locations, he tentatively came to the same conclusions. Samples from these plants are now undergoing scientific tests in an effort to determine their exact status. It is a relief to know that only minor fractions of a plant are required for modern tests so that no plants need to be destroyed in the name of science.

One does not have to read far into the

Trillium literature to be reduced to a feeling of utter confusion. There seems to have been an unfortunate tendency for one author to quote another with little attempt at discovering how accurate was the original source. Perhaps it was accurate enough at the time of writing, but subsequent findings have thrown it all out of kilter. Even such an impeccable source as Hortus III will be found wanting at times if one can ferret out monographs on the various items covered. In a book which attempts to cover such a vast array of subject matter, this is almost inevitable. Even the most recent publications of necessity fall behind current findings since our search for knowledge seems to be insatiable.

Another unfortunate tendency, both in the literature and among those who sell plants, is to dub any yellow flowered Trillium (and almost all species seem to produce them even if only rarely) as Trillium luteum. If the thing has green flowers, regardless of any other differences it might display, it becomes either T. viridi or T. viridescens, and while some authorities are of the opinion that they are the same, others are equally certain that they are not. Just for the record, nearly all of the 50 or so species of Trilliums (including T. luteum) have produced plants with all or partly green flowers just as most of them have, with various degrees of regularity, produced yellow flowered plants. There has also been an unfortunate tendency to call all sessile flowered Trilliums "T. sessile" no matter where they came from or what they look like. A common substitution in the trade is T. cuneatum passed off as T. sessile. It seems to be more common to purchase a misnamed Trillium than an accurately named one.

Western sessile flowered Trilliums fall into two groups: Trillium petiolatum, which is stated to have immaculate leaves but sometimes doesn't, and all the rest which are supposed to have mottled leaves but frequently do not. As is also true in the eastern sessile flowered species, relying on the degree of mottling is a very shaky stick as an aid in identification. Those western plants which are technically in the mottled leaved group have been in an unholy name muddle, but there is not now, nor has there ever been, any valid reason for calling any of them T. sessile rubrum or T. rubrum. The latest assessment divides this complex into four species: albidum, angustipetalum, chloropetalum, and kurabayashii. There is considerable evidence to indicate that T. albidum as now delineated may not be one species, but two with a complex series of hybrids where the two meet. As if this were not enough, there is yet one more population which refuses to fit neatly into the cubbyhole assigned to it. The albidum complex consists of white flowered plants which in some populations frequently show a flush of purple at the base of the petals. All other western sessiles, including T. petiolatum, are frequently some shade of red, but the flowers may also be various shades of tan to brown or bronzes, and more rarely clear yellow. Yes, the occasional green may be found also. Chloropetalum goes the gamut by producing flowers in whites through pinks. Colors may be solid, variously blended, or patterned. Some are exceedingly beautiful.

It is not only our species which are too poorly known. Little recognition has been given to the fact that to survive, plants must be inherently variable. Botanical descriptions, like the Mother

Hubbard gowns of old, are meant to cover a lot of territory with absolutely no attempt at flattery. They make little or no provision for the matter of plant variations. Some species favor variation within the total population on a hit or miss basis while others clearly vary from one location to another. It may be argued that the latter are on the way to becoming species in their own rights, thus opening the door to derisive shouts of "Splitters!" However, it is--or should be--clear that cutting the numbers of our species to such a point that the variability factors have been lost is pushing the plants that much closer to extinction. Except that it is much easier to keep track of something which has a name for a handle, it matters little what these variations are called. It is vital, however, that their existence be recognized and that they be allowed, or helped, to propagate themselves, thus insuring the strength of the species.

I deeply feel that we need to know much more about our native plants. Publishing information in obscure journals in language that is so technical that only the chosen few know what has been said does little towards saving what is left of our national heritage. It is sickening to learn that the type of locale for scantily known plants has--because of just such scientific mumbojumbo--just been bulldozed to make room for another housing development and no one was alerted to come to the rescue of the plants. I was recently informed of such an event taking place in the South with one of the more recently recognized species of Trilliums. It is not only the Trilliums which are in jeopardy. Even so august a publication as Hortus cannot be expected to keep up with our human population explosion. It seems to me

that a few dedicated amateurs with sharp eyes and a keen interest in particular genera, or possibly even species, can do a great deal to add to our fund of knowledge. It is not enough for the individual to know; he must be willing to share what he has discovered so that others may benefit from his observations. Hoarded knowledge benefits no one. Publications such as The Newsletter issued by the North Carolina Wild Flower Preservation Society can go a long way towards helping to fill the void by collecting and printing the findings of many individuals.

+ + +

Mrs. G. W. Dusek of 26121 - 150th Avenue, E., Graham, Washington 98338, has made the study of Trilliums her specialty.

+ + + + +

GARDENING IS AN ART

In the number of the fine arts ... many reckon but five — Painting, sculpture, architecture, music and poetry. To these some have added oratory ... Others again add Gardening as a 7th fine art, not horticulture, but the art of embellishing grounds by fancy ... (As) a fine art it is nearly allied to landscape painting, and accordingly we generally find the landscape painter the best designer of a garden.

No perfect definition of what is a fine art has ever yet been given.

(Gardening may be art, he continues and then elsewhere says — Gardening is —)

An art, too important to health and comfort and yet too much neglected in this country. . .

Thomas Jefferson
Letter to Ellen Randolph
July 10, 1805

WILDFLOWER SEED: A VALUABLE NATURAL RESOURCE

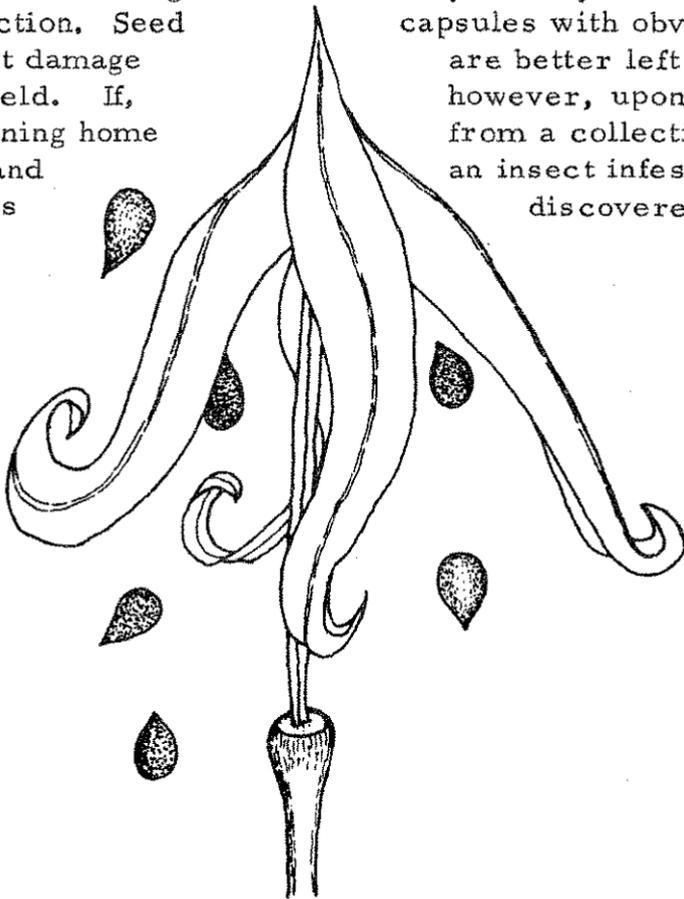
by
Harry Phillips

North Carolinians are fortunate to live in a state with such a rich native plant heritage. Consider, for a moment, the grand variety of naturally occurring plant species held in each of the many different habitats found throughout the state. What with the distinct geographical provinces of the mountains, piedmont, sandhills and coastal plain, it is no wonder that one admiring observer referred to North Carolina as a "living museum." Wildflower gardeners have the potential to fill a role of major significance with respect to the protection and active conservation of this enormous diversity of plant material. Selective collection of wildflower seed offers a sound approach to working with our native plants and serves as a sound alternative to the more traditional and questionable practices of field collection and nursery purchase. By relieving our natural areas from the pressures of collection and commercial exploitation we can set an important precedent in the area of wildflower cultivation, not only in North Carolina but to the general gardening community across the country. The wooded cove or colorful savannah that has rewarded the observant wildflower lover with its natural beauty can, when discretion is exercised, serve as a useful seed bank. As concerned native plant gardeners, Wildflower Society members can make a major impact in this area via the dissemination of information gained through our experience with wildflower seed.

Preparation for seed collection can begin with the advent of the first wildflowers in early

spring. Because the appearance of many plants changes considerably between the time of flowering and that of fruiting, care must be taken to accurately mark the location of a plant when in flower, thus enabling one to return to that precise spot when in fruit. Marking can be accomplished with an inconspicuous material such as a small wooden or metal stake, which can be readily removed at time of seed collection. A field notebook, in which specific location data can be recorded, is a must for the conscientious seed collector. Faithful notebook entries can eliminate all the guesswork when returning weeks or months later to the site of that favorite wildflower. In some cases, several return visits may be necessary for the collection of mature seed as local weather trends may delay the ripening of seed. For instance, seed of Fire Pink has, in different years, been harvested as early as June and as late as August. Often it is only a period of three or four days from maturity to dispersal as evidenced in seed of both the Touch-Me-Not and Bloodroot plants. It has long been a technique of the thoughtful gardener to secure a small plastic bag around the seed capsule of the Bloodroot to catch its seed. There are, however, many wildflower species whose seed ripens over a long period of time, such as many members of the Aster family. Generally, seed of this family have been found most viable toward the end of the growing season and the anticipation of the first frost. When broken open, a mature seed will reveal a moist white embryo. The sensitivity developed during this process of observation and examination can prove most rewarding and enjoyable and the insights gained from this year's work will supply us with clues of what to look for next year.

Provided that we are mindful to collect only as much seed as we need to work with and that we collect from populations of plants large enough to withstand some seed loss, we can insure the proliferation of the plant in its particular haunt. Separate containers should, of course, be used for the collection of each separate species of seed and tightly sealed to avoid contamination with other seed lots. Finally, discretion should be used in selecting only healthy seed for collection. Seed capsules with obvious insect damage are better left in the field. If, however, upon returning home from a collecting trip and an insect infestation is discovered

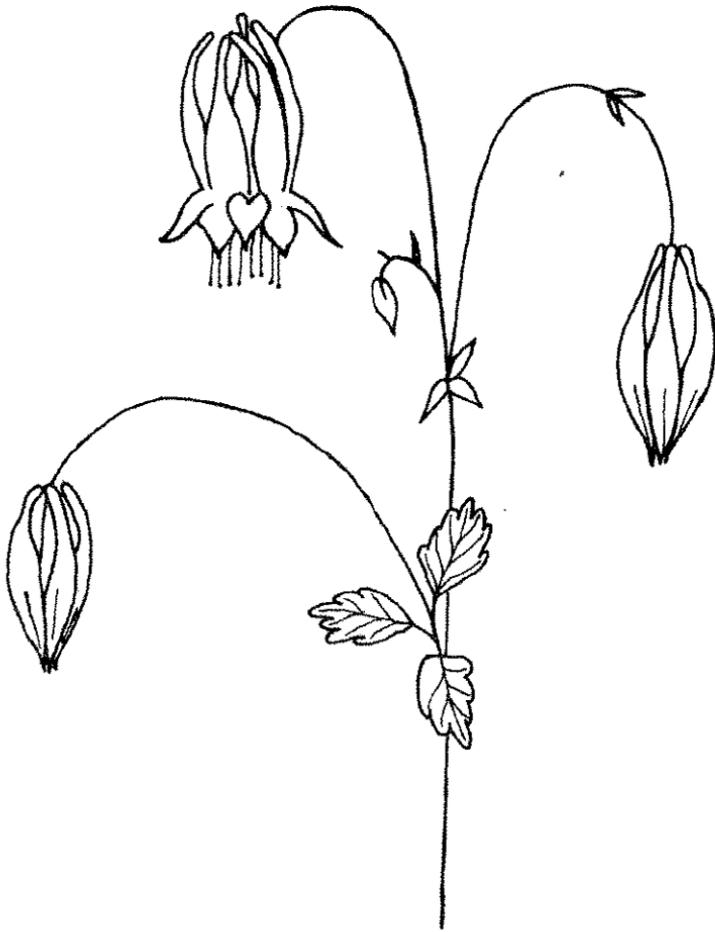


Touch ~ me ~ not

treating with a fumigant can be effective. No-pest-strips placed among the seeds in a sealed container have proven a satisfactory antidote. This method is particularly successful against the weevil, commonly found in the seed pods of some of our native Hibiscus.

Once home with our seed bounty, we will need to concern ourselves with its processing. Removing all material save the structure in which the seeds are held is the first step. Many seeds will benefit from air-drying as illustrated with our native Columbine and Foam Flower. Seed capsules of these wildflowers, when spread out on newspaper in a well-lit, well-ventilated room, will split open within a couple of days, making seed cleaning easy. Other seeds, such as those of the Cardinal Flower, Hibiscus, and the native Lilies can simply be shaken free from their capsules while seed of Sundrops and Moth Mullein are less easily removed and require crushing the capsules and sieving through a wire mesh to separate the seed. Still others, like Jack-in-the-Pulpit and Arrowleaf need a hand cleaning to remove the fleshy seed coat encasing the seed. A memorable example of this last cleaning method involved hand to hand combat with the Prickly Pear Cactus. Upon splitting open the pear, numerous seeds were found surrounded with a sticky, gelatinous substance which required some four separate washings (with a strong liquid detergent) and dryings to separate the seed. The deep purple seed coat of Umbrella Leaf can be readily removed following an overnight soaking in water, but beware of purple stained hands.

As soon as the cleaning process has been completed, proper seed storage should be carried

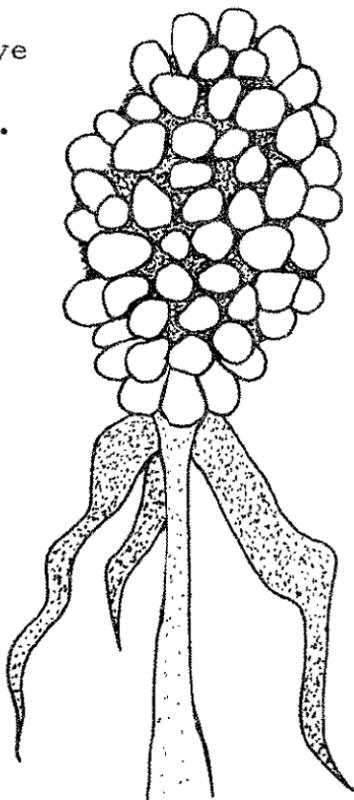


Columbine

out, the final step in our seed collecting odyssey. A few clues from nature will help. Basically, the condition of seed in its structure, moist or dry, determines how it is best stored. A medium of damp sphagnum moss is ideal for the stratification of moist seed. Dry seed can be stored in that condition. In both cases, seed should be stored in sealed, air-tight containers, labelled, and refrigerated until spring sowing.

Seed collectors will soon become aware of the great variety of seed types found in nature. Consider the interesting showerhead that holds seed of the American Lotus, the neatly stacked columns of seed, reminiscent of stacks of poker chips, found in chambers of a lily capsule or the pencil-thin seed of Blue Star that look like cinnamon sticks.

Seed of the native is moved about white parachute. their color, are easy such as red of Jack-in- and the deep seed of the Leaf. Other more difficult due to the of insects before mature case ants plants Trailing and Wild



Milkweeds by a silky Because of some seed to spot, the bright the the-Pulpit purple Umbrella seed is to collect arrival just seed is as is the with visiting of Arbutus Ginger.

Jack-in-the-Pulpit

As mentioned earlier, some seed is ready for collection early in the growing season. April is not too early to find mature seed of Toothwort, Hepat-

ica, Trout lily and Shortia. In addition to the satisfaction of practicing conservation, seed collectors will no doubt gain a lasting appreciation for the diversity of wildflowers found in North Carolina and for the great variety of seed structures, shapes and colors.



Milkweed

Harry Phillips is a botanist and staff member of the North Carolina Botanical Garden in Chapel Hill. He is in charge of the seed collection for the N. C. Wild Flower Preservation Society, Inc.

OBSERVATIONS ON PURSLANE

by

Steven W. Leonard

Portulaca pilosa—Purslane is a South American native that has become a cosmopolitan weed occupying many habitats where much sunlight is available. The plant, though small, is rugged, in that the most callous and disdainful treatment will fail to deter its daily pink blossoms from opening about ten o'clock in the morning. The tiny black warty seed sprouts in about ten days, roots readily from cuttings, and because of its succulent nature, will persist for days either wrapped in moist paper or closed up in a container. If given full sun, the plants tend to be prostrate; if given plenty of water and fertilizer, and planted thick, they will be erect. Because they are flowering and maturing seeds throughout the summer and up until frost, seed propagation is suggested. Plant them in shallow loam; sow lots of seeds, and when they get up a few inches tall, trim them with scissors to whatever height and shape you desire. The bits of branches can be rooted, and new growth will quickly appear on those which have just had a "haircut." If indoors, they do best in a window facing the south. This plant is ideal for beginners, shut-ins, hospital patients, etc.

+ + +

Dr. Say will hand your excellency a small packet containing a few seeds of a beautiful flowering tree together with a catalogue of our collection. The tree is the Mimosa julibrescens (silk tree), a native of Persia and Armenia; lately brought to us by the celebrated Michaux the elder. Its delicate sweet flowers grow in fascicles, composed of a number of slender silky threads, tipped with crimson anthers.

William Bartram to Jefferson (1808)

THE FERNS OF SPRING

by

Susan D. Barnes

With the advent of warmer days, I have begun that exciting search through the garden that every gardner understands, the poking and peeking under mulches hunting for the first promises of spring. This is my favorite time of the year, and there are not enough springs in a lifetime to see all that is offered. For me, one of the loveliest spring promises is the fern. When the coiled leaves known as fiddleheads or crosiers push up and slowly unfurl, I am taken with the sheer beauty with which they clothe the woodlands, waste places, rocky cliffs, swamps, and our gardens. No other plant rivals the complexity and intricacy of their green leaf form, which varies from leaves like straps to those that look like the finest of cut lace.

The fern is defined as a flowerless, seedless plant having a root, stem, and leaves, and reproducing by spores. There are some 6000 different species of fern that grow in the wild between the Arctic and the Antartic and the Equator. They belong in about 150 different groups or genera. In our eastern part of the state, we have around 35 species.

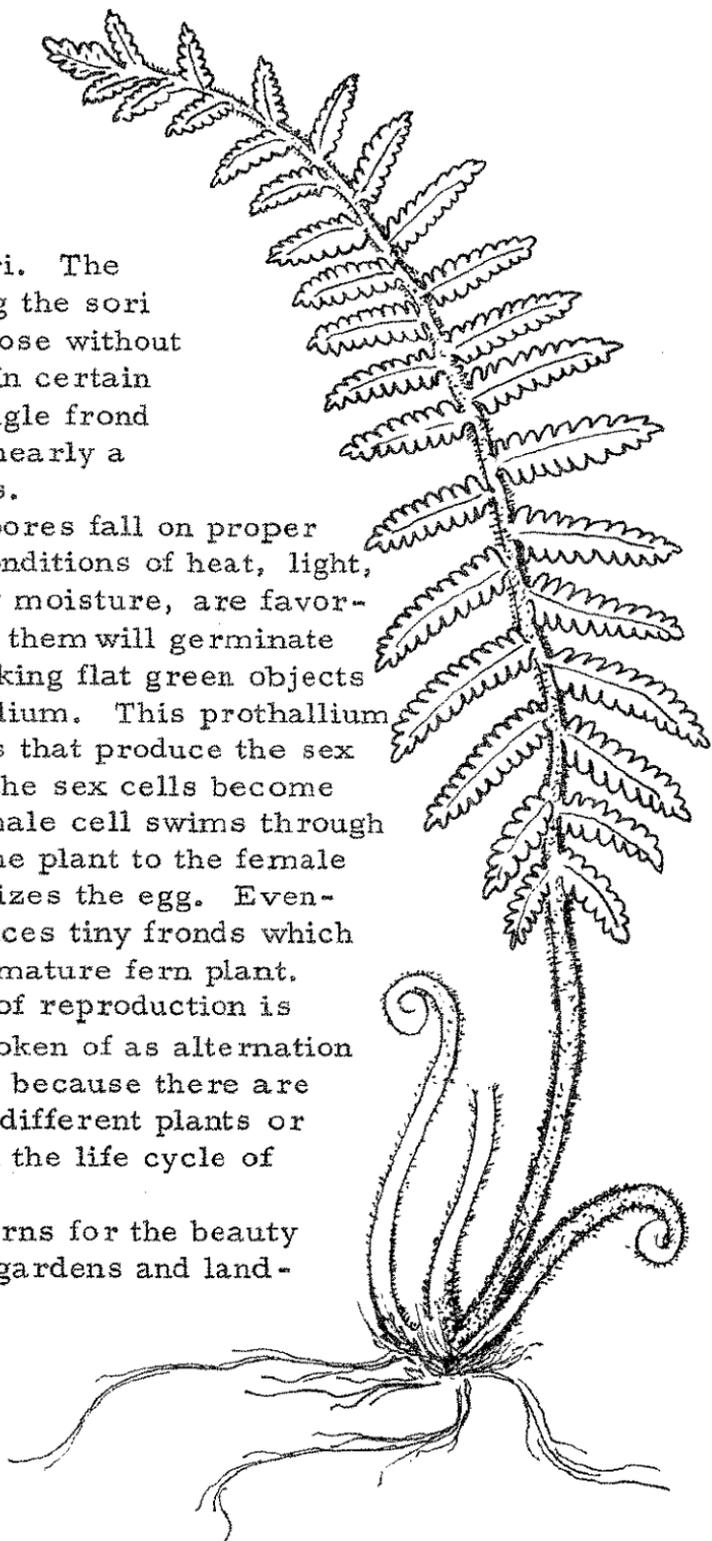
Ferns have been on our earth since the time of the dinosaurs when they or their close relatives were the dominant vegetative cloak of the earth. They supplied some of the vegetable matter which later formed our great coal deposits.

The life cycle of a fern begins with a spore, a microscopic, spherical one-celled body which develops on the underside of the frond or on separate stalks. The brownish clusters of these spore cases

are called sori. The fronds bearing the sori are fertile; those without are sterile. In certain species, a single frond may produce nearly a million spores.

If the spores fall on proper soil, and if conditions of heat, light, and especially moisture, are favorable, some of them will germinate into queer looking flat green objects called prothallium. This prothallium has the organs that produce the sex cells. When the sex cells become mature, the male cell swims through moisture on the plant to the female cell and fertilizes the egg. Eventually it produces tiny fronds which grow into the mature fern plant. This process of reproduction is sometimes spoken of as alternation of generations because there are two distinctly different plants or generations in the life cycle of every fern.

I love ferns for the beauty they give our gardens and land-



scapes, but they have other uses too. They can be valuable in holding down the soil and regulating the flow of water. The spores of some ferns are used in medicines and some species are used for food. The fiddlehead is considered a delicacy in some of our northern states. In Russia and Siberia, a tea is made from dried ferns, while in parts of Britain the Bracken or Brake is used to thatch cottages.

With its long history of usefulness and beauty, it is no wonder the fiddlehead looks so majestic as it pushes up each spring and slowly unfurls.

+ + + +

Susan Barnes is an enthusiastic wild flower gardener whose ferns flourish in both her garden and her home.

+ + + +

I never before knew the full value of trees. My house is entirely embosomed in high plane trees, with good grass below, and under them I breakfast, dine, write, read and receive my company. What would I not give that the trees planted nearest round the house at Monticello were full grown.

Jefferson to Martha Jefferson Randolph
(1793)

+ + + +

A 'propos of plants, make a thousand acknowledgements in my name and with my respects to Mrs. Bankhead for the favor proposed of the Cape Jessamine. It will be cherished with all the possible attentions: and in return proffer her Calycanthuses, Paccans, Silk trees, Canada martagons or any thing else we have.

Jefferson to Anne Cary Randolph Bankhead
(1809)

DAVIDSON COUNTY COMMUNITY COLLEGE NATURAL GARDEN

Davidson County Community College Natural Garden, located at Davidson County Community College on the Greensboro Road in Lexington, North Carolina, was sponsored and made possible by the efforts of 18 garden clubs in Davidson County, North Carolina. These clubs are located in Thomasville, Welcome, and Lexington.

The College set aside 3.2 acres of land and the garden began as a bicentennial project. Actual work began April 30, 1976. Sugar Grove School, one of the last of the one-room school houses, was relocated from the present Pilot School District and restored as a bicentennial project by the Davidson County Bicentennial Commission. Both the school and garden were dedicated and opened to the public July 4, 1977.

There has been 100 percent cooperation and participation from Davidson County Garden Clubs and Garden Club Councils. Members have given generously of their time, money, and plant material. Over \$2,000 has been realized to help finance the project. There were plant sales, cookbooks sold, flower shows, rummage and auction sales held. Friends, organizations and garden club members have made outright gifts and contributed to the tax-deductible "Davidson County Community College Natural Garden Gift and Memorial Fund" which has been set up. Many items, and most of the labor, were free. Davidson County Community College officials, instructors, and students have cooperated every inch of the way, and their help has been

invaluable. City and County officials, young people, retired people, business firms, and interested citizens have all helped us to move forward.

We applied to Davidson County Employment and Training Act, "CETA," and received three separate grants. The workers built five bridges across the pretty stream that wiggles its way through the garden. Paths originally begun by garden club members, Davidson County Community College officials, and students were extended and improved. We now have over one-half mile of trails (.058 mile), with one more anticipated trail still on the drawing board. More clearing and cleaning up got underway, and continues to this day. Native plants not already found in the garden were introduced. Discarded crossties were used to build steps; a large sign was made; garbage cans added; benches built; an "outdoor classroom" completed with benches, table, podium, and bulletin board. A stone wall was built at the entrance area, and also stone steps leading down into it. Trails were lined with rocks or logs and covered with load after load of sawdust. Discarded car parts, dumped at the site for years, were removed. A path for the handicapped was made at the front and another at the back of the garden. A parking lot took shape. More than 2,000 bulbs have been planted in the entrance area.

Mr. Phil Byerly, Davidson County Community College grounds supervisor, is currently supervising two youths, who through CETA, will be helping us for a year (until December, 1980). They are currently cutting out honeysuckle which is growing, jungle-like, in the Holly Hill area.

It is a very ambitious project, as honeysuckle is our No. 1 enemy. When the honeysuckle starts growing again in the spring, we can get at it more easily with "Round Up Spray."

Plants have been identified by knowledgeable people, catalogued and many have been labeled. Students in the drafting class took on making a map of the garden as a class project. Biology students have made slides and photographs of some of the wild flowers and other plant material. Art students have drawn and painted in the garden. Three weddings have taken place in the garden, and for two consecutive years Ledford Junior High has used it for background for their annual.

On April 28, 1978, "Open Garden" was held so that visitors could see what progress had been made. Sponsoring club members served as hostesses all day.

The Lexington Garden Club Council honored Anel Norman Block for her dedication to this project on July 5, 1978 with a wrought iron gate at the garden entrance and an attached brass inscribed plaque. The Board of Trustees of Davidson County Community College presented a certificate of appreciation and friends gave \$155 to Davidson County Community College Natural Garden in her honor. After the dedication, a luncheon was held at the Dutch Club in Lexington.

+ + +

Anel Norman Block is a member of the North Carolina Wild Flower Preservation Society and invites our members to visit the garden.

B O O K S Of Interest

Eastern North America's Wildflowers by Louis C. Linn. New York: E. P. Dutton. 377 pp. \$9.95. paperback.

Wild Flowers of the Northeast by Katherine MacKenzie. Plattsburgh, NY: Tundra Books of Northern New York. 90pp. \$2.95. paperback.

The New Field Book of American Wild Flowers by Harold William Rickett. New York: G. P. Putnam's Sons. 414 pp. \$4.50. paperback.

Wildflowers and Weeds. A Guide in Full Color by Booth Courtenay and James H. Zimmerman. New York: Van Nostrand Reinhold Company. 144 pp. \$6.95. paperback.

Arlo Smith, Professor Emeritus of Biology at Southwestern University, Memphis, has written a new book entitled, "A Guide to Wildflowers of the Mid-South." This book is more than merely a means of identifying plants. It presents some fascinating information about interrelationships between plants and their environment as well as among plants themselves. The nearly 500 full color photographs were made by the author for classroom use and show specifically what one must know for identification.

You may order from Memphis State University Press, Memphis State University, Memphis, Tennessee 38152. \$19.95.

THE NEW RIVER CONTROVERSY, by Thomas J. Schoenbaum, John F. Blair, Publisher. \$12.95.

This book gives an absorbing account of the legal battle that took place between the state and the American Electric Power Company of New York City. Schoenbaum is an environmental law professor at the University of North Carolina and had a hand in the state's legal strategies.

His book portrays the public sentiment that ultimately defeated the project and there is a section devoted to the history of the valley region. The New River was saved by the voice of the people through an act of Congress. The North Carolina Wild Flower Preservation Society was part of the voice in the fight to preserve the New River.

The years of struggle ended on September 11, 1976, when President Gerald Ford signed into law a bill designating 26.5 miles of the South Fork of the New as a national scenic river, in effect blocking construction of the dam.

+ + + +

I have often thought that if Heaven had given me choice of my position and calling, it should have been on a rich spot of earth, well watered, and near a good market for the productions of the garden. No occupation is so delightful to me as the culture of the earth, and no culture comparable to that of the garden . . . I am still devoted to the garden. But though an old man, I am but a young gardener.

Jefferson to Charles W. Peale
(1811)

I thank you for the seeds. . . . Too old to plant trees for my own gratification, I shall do it for my posterity.

Jefferson to Samuel Constantine Rafinesque
(1822)

MINUTES OF FALL GENERAL MEETING

The Weymouth Woods Nature Preserve at Southern Pines was the site of the Fall General Meeting of the North Carolina Wild Flower Preservation Society, Inc. The business meeting was called to order at the Conference Center at 8:00 p.m. on October 13, 1979, by the president, Emily Allen.

The Treasurer's report showed a balance on hand of \$1,704.82; scholarship fund \$856.72.

Under new business, Emily asked for the following information on members for a personal file 1) Name and address, 2) Occupation, 3) Field of interest, i. e. propagation, photography, speaking, etc., 4) Do you have a garden show? 5) Do you have property for a field trip? 6) Community involvement in this regard, 7) Willingness to assume responsibility in the Society, 8) Phone number.

Robert and Julia McIntosh from Aiken, South Carolina, were recognized, and Robert told of their work and success with a native plant nursery.

Included in the Saturday activities were an introductory talk on the Sandhill Region; a tour of Weymouth Woods Sandhills Nature Preserve; a lecture on Insects of the Area by Charlotte Gantz; a tour of the Boyd estate to see the state champion longleaf pine and other virgin longleafs, and a visit to selected areas in Fort Bragg Military Reserve.

The Sunday morning activities ran concurrently including a choice of canoe trips on Drowning Creek, which is part of the Lumber River, or tours of Clarendon Garden.

Tom Howard, Ranger Naturalist, was assisted by Steve Prior, Dick Thomas, Julie Moore and Harry Phillips.

Respectfully submitted,
Clara Murray, Secretary

MINUTES
SPRING BUSINESS MEETING
N. C. WILD FLOWER PRESERVATION SOCIETY, INC.
March 9, 1980

The Executive Board of the North Carolina Wild Flower Preservation Society, Inc. met March 9, 1980, at the Weymouth Woods Conference Center. Following a picnic lunch, the meeting was called to order by the president, Emily Allen. The minutes of the Board Meeting were read and corrected to indicate that the Fall Field Trip was changed to read "Fall General Meeting." The minutes of that meeting were read.

The Treasurer's Report showed a balance on hand of \$1,231.01; in the Scholarship Fund \$868.68.

Linda Lamm stated that articles for the Spring News Letter should be in by March 15. It was announced that Patricia Ross of Wilson had been appointed as a new member of the editorial staff.

Harry Phillips reported that he considered the seed exchange program was very successful. He encouraged members to continue to collect and send in seeds.

After much discussion about our seeking membership in various organizations, especially the North Carolina Museum of Natural History and the Conservation Council of North Carolina, Dr. Hechenbleikner moved that the president appoint a committee of three (one of which to be the treasurer) to investigate the organizations and the financial limit it would recommend us to have in memberships to other organizations. The motion was seconded by Patty Warren and carried. Tom Howard was appointed chairman; Gretchen Cozart, treasurer, the second member,

and the third member was to be appointed by the chairman.

It was agreed that, because of the heavy responsibility, Ken Moore should be relieved of handling the correspondence and finances of the North Carolina Native Plant Propagation Handbook. The president will contact Jane Welshmer of Chapel Hill concerning the chairmanship of a committee to handle this matter.

The report on bulk mailing of the correspondence and the News Letter is still not ready.

Lionel Melvin, chairman of the By-Laws Committee, reported that the Trustees of the Society had reviewed and approved the revised By-Laws drawn up by the Committee, which consisted of Emily Allen, Lucille Grassia, Marjorie Newell, and Flora Ann Bynum, and the charter has now been reinstated.

The president suggested making a personal file of members to create a yearbook. A motion was made by Nell Lewis, seconded by Caroline Donnan, that plans for this project be made. The motion was carried.

Tom Howard moved that the Spring General Meeting be held May 24-25 at Highlands Biological Station in the southwestern part of the state. The motion was seconded by O. G. Allen and carried. There being no further business, the meeting was adjourned.

Respectfully submitted,

Clara Murray
Secretary

+ + + + +

Planting is one of my great amusements, and even of those things which can only be for posterity, for a Septuagenary has no right to count on anything beyond annuals.

Jefferson to Dr. Samuel Brown (1813)

NORTH CAROLINA WILD FLOWER PRESERVATION
SOCIETY ADDENDUM

Notes on Weymouth Woods Weekend

by

Travis Thompson

Two groups were formed for the informative hike in Weymouth Woods in the Museum area. One was led by Tom Howard, Park Ranger for Weymouth Woods, and the other by Steve Prior. Tom's group made this hike on Saturday morning, and for the afternoon he had arranged for both groups to travel in shifts by car to visit the wildflower areas of adjacent Fort Bragg.

After making several stops for viewing rare species of flowers along the Fort Bragg fire trails the motorcade proceeded to make its exit from the area. As it approached the intersection with the road leading out of the reservation, the lead car was intercepted by a low flying helicopter repeatedly swooping backward and forward just a few feet above the car's hood. Not knowing what to make of this, the column proceeded into the intersection only to find itself in the midst of heavy traffic consisting of jeeps, personnel carriers, tanks, gun carriers, etc. on realistic Army maneuvers training for the imminent trip to Guantanamo Bay.

A conference between Tom and the jeep-borne commander of the troops resulted in our immediate about face through the area where a few minutes before we had enjoyed the field trip through the wildflower fields, an area now populated by soldiers in full combat regalia camouflaged among the foliage and peering with their machine guns from fox holes all over the place.

As we emerged from the combat zone, Tom searched out the security officer at the guard post to get an explanation of this blunder and to learn whether he should bring in the second section of our group. The explanation was, "You have permission to be in this area. The Army does not. Bring them on."

On Sunday morning, 15 members of the group who had made previous reservations for the canoe trip assembled at eight o'clock at the Weymouth Woods headquarters along with seven canoes. They proceeded in three vehicles to the put-in point on Drowning Creek, the dividing line at that point between Scotland and Hoke Counties.

Tom and others had thoughtfully packed several changes of dry clothing against the unlikely event of a capsizing. There were two paddlers in each of seven canoes, and an extra passenger in one canoe, all water borne and underway at 10:30 A.M.

Drowning Creek, which runs into the Lumber River, is unbelievably crooked, full of snags and submerged logs, and in places obstructed by fallen tree trunks. The water was swift and at flood stage, with side streams entering at times.

These voyagers included Nancy and Travis Thompson, who let it be known that they had been canoeing for 49 years, including a honeymoon with whitewater along the James River, with never an upset. Zeke Cozart, a longtime and expert canoeist, manned one canoe along with Phillip Walker. All of the canoes had some difficulty maintaining a steady and mid-stream course because of the cross currents and turbulence which tended to force the craft into the bushes along one bank or the other. Nevertheless, everything proceeded well during the first hour of the three hour trip. Then, on one of

the forays into the brush lined bank, a dangling vine of undetermined species caught Nancy around the neck, causing the canoe to swing broadside to the current, dragging her over the gunnel and capsizing the canoe.

By the time the occupants popped to the surface and righted the canoe, the Cozart and Walker canoe came alongside and helped them ashore. We were grateful for the dry clothing provided by Tom and others.

There was no turning back and nothing to do but paddle ahead for the remaining two hours in this soggy condition. All went nicely for awhile; then the Cozart-Walker canoe encountered a nasty snag which catapulted them into the stream. It didn't take long for them to right their canoe, recover their belongings and be on their way.

About 1:30 P.M. the group reached the take-out point near Wagram. Everyone was elated that all would now be on the way to their vehicles and to Weymouth Woods. But, alas, when we reached the car, it was discovered that the keys had been left at the starting point—ten miles away! A bit of hitchhiking solved the problem—expertly accomplished by Tom and some accomodating "Highway hosts."

The cruise down Drowning Creek proved to be an interesting, eventful and, yes, an enjoyable part of the October 1979 Weymouth Woods meeting of the North Carolina Wild Flower Preservation Society.

+ + + + + + + + +

Nancy and Travis Thompson have retired but are active gardeners, travellers and square dancers.

+ + + + + + + + +

I learn with great pleasure the success of your new gardens at Auenay. No occupation can be more delightful or useful.

Jefferson to Madame de Tesse (1813)

ANNOUNCEMENTS

THE SPRING TRIP OF THE WILDFLOWER PRESERVATION SOCIETY will be held May 24-25 at Highlands Biological Station. All information will be sent to members by letter.

THE SPRING WILDFLOWER AND FERN SALE will be held at the Totten Center, North Carolina Botanical Garden, Chapel Hill, N. C. on Saturday, April 16, 10 AM - 1:00 PM. Come early. Bring a container in which to transport plants. (Telephone 967-2246).

VOLUNTEER'S HERB SALE this year will be on Saturday, May 17, and Sunday, May 18, 2-4 PM. Annuals, perennial and biennials are all included in this sale at the Totten Center, Chapel Hill, N. C.

The second annual conference on "Restoring Southern Gardens and Landscapes" will be held October 2-4, 1980, in Old Salem, Winston-Salem, N. C. Co-sponsors are Old Salem, Inc., Reynolda Gardens of Wake Forest University and Stagville Preservation Center. Registration for the conference will be limited to 100. Further information may be obtained from Old Salem, Inc., Drawer F, Salem Sta., Winston-Salem, N. C. 27108.

For additional information on wild flower cultivation, refer to the North Carolina Native Plant Propagation Handbook, compiled by the members of the North Carolina Wild Flower Preservation Society, available through the Botanical Garden. Price: \$3.50 postpaid. Make checks payable to: North Carolina Wild Flower Preservation Society, Inc.

Totten Garden Center, 457-A, UNC
North Carolina Botanical Garden
Chapel Hill, North Carolina 27514

Preserve To Be Established in Nags Head Woods: The North Carolina Nature Conservancy recently began a half million dollar campaign to establish a nature sanctuary in the Nags Head Woods, a National Natural Landmark in Dare County. The two hundred acres targeted for preservation represent the biologically most significant portion of the 1,860 acre area, Wetlands, Woodlands and The Dunes.

WE WELCOME THE FOLLOWING NEW MEMBERS

March 17, 1980

Alguire, Ms. Catherine
402 Watts Street
Durham, N. C. 27701

Altemus, Mrs. T. R.
9314 Ft. Foote Road
Oxon Hill, Md. 20022

Ballington, Dr. J. R.
Dept. of Horticultural
Science, Box 5215 NCSU
Raleigh, N. C. 27650

Bonitz, Mrs. Dorothy
4020 W. Friendly Ave.
Greensboro, N. C. 27410

Chambers, Mrs. Bobbie
432 Springdale Avenue
Winston-Salem, N. C. 27104

Connor, Mrs. Doug
511 W. Parkway
High Point, N. C. 27262

Frantz, Mrs. De De
4402 Trailwood Drive
Greensboro, N. C. 27407

Gilmer, Mrs. James E.
161 Hunters Ridge Road
Winston-Salem, N. C. 27103

Glaze, Mrs. Richard E.
530 Archer Road
Winston-Salem, N. C. 27106

Harrison, Mrs. Carol E.
104 Somerset Drive
Jamestown, N. C. 27282

Jones, Mrs. Ike
2236 Vernon Drive
Charlotte, N. C. 28211

Kemp, Dr. Robert T.
76 N. Griffing Blvd.
Asheville, N. C. 28804

Kennemer, Mrs. C. E.
9701 Mill Run Drive
Great Falls, Va. 22066

Lucas, Jr., Mrs. C.
Clement
Sycamore
Edenton, N. C. 27932

Ludas, Mrs. Debra Bye
7513 Longstreet Dr.
Raleigh, N. C. 27609

Matthews, Ms. Joanne S.
P. O. Box 161
East Bend, N. C. 27018

Peterson, Ms. Marion R.
2381 N. Danville Street
Arlington, Va. 22207

Rountree, Mr. John J.
6514 Elm Hirst Drive
Falls Church, Va. 22043

Werner, Mrs. Dorothy
3405 Mansfield Road
Falls Church, Va. 22041

Supplementary Educational
Center

1636 Parkview Circle
Salisbury, N. C. 28144

Thomas, Mr. Dick
P. O. Box 595
Seven Springs
West End, N. C. 27376

Thomas, Mrs. Jeannette Lamy
5920 Camberly Ave.
Springfield, Va. 22150

Urshel, Ms. Susan
310 N. Page St., Apt. 3
Southern Pines, N. C. 28387

Venable, Mrs. Marion F.
P. O. Box 22
Siloam, N. C. 27047

Watson, Mrs. John C., Jr.
P. O. Box 178
McCain, N. C. 28361

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



900 WEST NASH STREET
WILSON, NORTH CAROLINA 27893

1980-81 dues are due May 1. Please help us save postage by mailing your check promptly to:

N. C. Wild Flower Preservation Society, Inc.
Mrs. S. M. Cozart, Treasurer
900 West Nash Street
Wilson, North Carolina 27893

MEMBERSHIP APPLICATION

\$5.00 Regular Membership per person New
\$25.00 or more Sustaining Membership
\$100.00 Lifetime Membership Renewal

Name _____

Address _____

City _____ State _____ Zip _____



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

M/M Thomas J. Jones, Jr.
1015 Anderson St.
Durham, NC 27705

FIRST CLASS

