BLUE RIDGE CHAPTER
OF THE
VIRGINIA WILDFLOWER PRESERVATION SOCIETY

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BEST PLANT SALE

Our third Annual Wildflower Plant Sale was held on May 16 at the lovely home of Paul James. Members had first choice of plants from 9:30 A.M. to 10:00 A.M. and also received a 10% discount. The sale opened to the public at 10:00 A.M. with many, many people attending and buying most of our plants. A very successful sale added $1390 to the treasury.

Special thanks to Walter and Barbara Bell, Bruce and Judy Boteler, Richard Crites, Sam and Dora Lee Ellington, Bob Eubank, Paul and Barbara James, Gail MacFarland, Bunky and Dana Markham, Virginia Nathan, Frank Noftsinger, Bobby and Frieda Toler, Sharon Vest, John and Evelyn Walke, Ken and Pam Wieringo and friends of the Chapter, Buddy and Hazel Cash, for helping with all the things necessary for a successful sale. We couldn't have done it without you! The luncheon that Barbara James prepared for the workers was great. Thanks to all!

You that have flower gardens be on the lookout for young seedlings that can be potted for our sale next year. Fall is a nice time for division of perennial plants so please plan on sharing with the chapter.

Now is the time to start planning for the 1988 sale.

Several of the BRC Plant Sale Crew: Ken Wieringo, Pam Wieringo, Paul James, Frieda Toler, Sam Ellington, Dora Lee Ellington, Rich Crites.

MEMBERSHIP MEETING

Date: June 22, 1987
Time: 7:30 P.M.

Place: Multi Purpose Room
Center in the Square

Speaker: Dr. Gary Glontz

Program: Rooting Rhododendrons from Cuttings

PLAN TO ATTEND AND BRING A FRIEND.

LETTER FROM THE CHAPTER PRESIDENT

As summer is rapidly approaching with its changes in our local flora, I hope all of you have had a good spring looking at wildflowers. As usual, our spring has been busy.

The wildflower pilgrimage was somewhat aquatic this year — but, still lots to see.

The April meeting with George Beatty as speaker was well attended. There were about 140 chairs, all filled, with some people standing and even others not coming into the auditorium because it was too crowded.

The Gatlinburg trip was very special (again) as Dorothy Bliss took the group to some neat locations.

The plant sale was the best ever this spring. Needless to say, many people are getting into wildflowers with their landscaping. Thanks to Paul for letting us use his place as the location for our sale. (We're planning a workshop this fall to allow our members to learn planting and potting techniques.)

The outing to Catawba Mountain was well attended. New plants were added to the list that Bill Hunley is putting together for the Appalachian Trail. We also got a close look at a large rattlesnake.

Thanks to Virginia Nathan for inviting our group to her farm for our June outing. The Peaks of Otter gave their usual spectacular show in the first week of June. I would urge all of you to mark your calendars for this special "event" next year.

Again, thanks to all who have contributed time, work, expertise and moral support to make all the activities successful. You are a special group of people!

Upcoming events include our meetings in June and August (4th Mondays). Also, July 3-10, our chapter will be sponsoring a booth at the national meeting of the Appalachian Trail Conference in Lynchburg. The Science Museum has invited us to help with a plant inventory project to be conducted at a new park site for Roanoke Co. The date is July 18. If you want to help, call Vickie at the Science Museum.

The annual Fall state-wide meeting is to be held in Williamsburg on Sept. 18-20. As usual, an auction will be held in conjunction with this meeting. Our chapter needs to contribute items to this auction. Be thinking about what you can contribute — crafts, books, and plants are all good items.

Schedule of Events

6/22	General Membership Meeting
7/3-10	A.T. Conference-Lynchburg College
7/18	Plant inventory for Science Museum
8/24	General Membership Meeting
9/18-20	Annual VWPS Meeting, Williamsburg

HARDY FERN CULTURE

by Virginia Klara Nathan

Hardy ferns can be a major interest in shady or partially shady perennial gardens. Native species offer variety in texture and size, as well as subtle differences in foliage color. They are excellent plants for naturalizing an area or for creating continuity in mixed plantings of annuals, perennials and shrubs.

For best results in growing hardy ferns, one should match the garden conditions to the environment of the native habitat. The forest floor, where most hardy ferns are found, is marked by partial shade and soil that is rich in organic material. This soil holds moisture well but, at the same time, is porous, allowing air to reach the fibrous roots. Ferns should never be allowed to dry out and, at the other extreme, they should not be allowed to stand in soggy saturated soil. The addition of leaf mold and well-rotted compost will make garden soil more suitable for ferns. Although many ferns thrive on slightly acid soil and a few prefer sweeter soil, most are adaptable to a wide pH range.

Most ferns can be vegetatively propagated by division, a procedure that allows gardeners to multiply their plantings. The key to successfully dividing and transplanting is to never let the roots dry out. Divide ferns in fall or early spring with soil surrounding the roots to lessen transplant shock.

A second way to propagate ferns is by spore culture. This method can produce a large number of plants, but it takes some time for plants to become sturdy enough to put outside. (Refer to Bob Tuggle's "Fern Propagation Recipe" in newsletter Vol. 3, No. 2 & 3 for directions.)

Fern reproduction by spores is a complex two-stage process. All of the members of the plant division Pteridophyta, the ferns and fern allies, have a distinct alternation of generations. First, the leafy adult plant, which we recognize as a fern produces spores which develop in sporangia or spore cases. The sporangia may be found on fertile fronds or fertile portions of fronds.

If the spores come in contact with a moist growing medium, in time, prothallia, tiny flat round structures which represent the sexual stage of ferns, develop. The prothallia bear the organs in which the reproductive cells of ferns (sperms and eggs) are produced. At this stage, moisture is critically needed if fertilization is to take place. The prothallium leaves must be kept wet so the sperms can swim to the ova.

After fertilization, young ferns, begin to grow and can be seen growing from beneath the prothallia. The length of time from sowing spores to having identifiable young ferns is variable from 2 months to 2 years. When young ferns are about two inches tall, they can be transplanted to individual pots and later hardened off for permanent planting.

Clearly, patience is needed to succeed in growing ferns from spores. In the past, most ferns found in the marketplace were dug from the wild. With the increased interest in gardens featuring wild or native plants, colonies of native ferns were ravaged to meet market demands. The Appalachian Mountains became a particular focus for commercial diggers who sought not only ferns but wildflowers and native plants of all sorts. People concerned with the preservation of native plants spurred the move toward spore collecting and propagating by commercial nurseries.

Fellow gardeners are a good source of fern divisions. If obtaining plants from a commercial source, make sure they have been nursery propagated. The North Carolina Botanical Garden keeps a listing of growers which propagate the native plants they sell. To secure spores, contact the American Fern Society (c/o NCBG). They compile a list of spores available for exchange.

Commercially propagated ferns have made more native species available to gardeners. The following are some native ferns, being propagated in nurseries:

Adiantum pedatum the maidenhair fern is noted for its fan-shaped pinnules and delicate airy foliage. *A. pedatum* is a favorite deciduous fern for a shade-garden. The species occurs on moist organic soil on well drained slopes so a north or north-east facing slope is ideal. Pale green leaves on black wiry stalks make maidenhair fern very attractive where light breezes flutter its fronds, though is cannot stand up to strong winds.

Ebony spleenwort *Asplenium platyneuron* is a good choice for shady rock gardens. Its evergreen sterile fronds grow to 5". In summer, taller fertile fronds wave above the center of the plant. Ebony spleenwort can be found on dry hillsides and rocky bluffs. Many maidenhairs and spleenworts grow best in the more alkaline soils found in conjuction with limestone rock.

Athyrium species, often called lady ferns, have leaves similar to many of the *Aspleniums*, but these ferns are not evergreen. They are native to the moist temperate woods and higher elevations of the tropics. *A. filix-femina* is the species most available through nurseries. It will tolerate considerable sun if located in damp, well-mulched soil. It is a good plant for the transition zone between woods and lawn.

Dryopteris species, the wood ferns or shield ferns, are favorites in woodland gardens. Plants in this genus have deeply cut and finely divided leaflets that typify ferns. Many are nearly evergreen and colorful throughout winter. *D. goldiana*, Goldie's Woodfern, can grow in water-logged soil and even survive occasional flooding. It will live in varied light conditions from partial sun to deep shade. Its relative, *D. marginalis*, the marginal shield fern needs moist but well drained, humusy soil and protection from sun and harsh winds. Try it on a north-east facing rocky slope covered with organic soil.

Native to river bottomland, Ostrich fern, *Matteuccia pensylvanica,* is at home in wet, even swampy areas. It reaches a height of well over three feet making it a good choice for background plantings. Give this fern plenty of room to roam, as underground runners will spread in all directions to establish new plants. When provided with ample water, ostrich fern can take more sun than many ferns.

The *Osmunda* genus includes three well-known temperate ferns suitable for woodland gardens. Cinnamon fern *(O. cinnamomea),* noted for its fertile "cinnamon stick" and vigorous sterile leaves, will thrive in moist acid soil. Interrupted fern *(O. claytonia),* has two or more fertile pinnae that grow part way up the stem and so "interrupt" the sterile pinnae that form the larger leafy portion of the crozier. Interrupted fern also thrives in moist acid soil of shady areas. Royal fern *(O. regalis* var *spectabilis)* has flower-like groups of sporangia that rise from the top of leaf-like pinnate blades. This fern will do best in open shade on wet, highly acid soil.

*Polypodium Virginianum,*the rock cap fern, is slow growing and quite easy to cultivate, it has leathery fronds and a shallow root system. This tidy evergreen fern grow on both basic and acidic soils and rocks and may form large mats when mature. It is an excellent subject in rock gardens and for containers and hanging baskets.

Chrismas fern, *Polystichum acrostichoides* is a robust evergreen and an excellent choice for garden use. The pinnate leaves are long with sharp-toothed margins. These ferns are tolerant and tough; they thrive almost anywhere except in full sun. Native plants grow on shaded slopes in moist woods.

PROTECTING FERNS

by Greg Lipscomb

If you grow Ferns in your garden you may have noticed from time to time that the Fiddleheads of certain Ferns seem to break off for no apparent reason. Your problem may be slug damage. Slugs like moist, cool areas. They crawl over the foliage and stems of certain plants and eat holes in the tender new growth. Slugs seem to be most active during damp or overcast days and at night. Also, using a heavy layer of mulch around your ferns makes the problem worse. Leaves are the worst because when they become wet they clump together giving the slugs a place to hide during the heat of the day. Ideally, ferns should have a light coating of mulch around them. Pine bark or needles are good to use. Slugs prefer some Ferns more than others such as *Lady Fern, Maidenhair, Fragile, Japanese Painted, New York, and Broadleaf Beech.*

Slugs can be controlled by first digging a small hole in various locations around your garden. Then take a pie pan or other shallow container and sink it in the hole so that the top of the container is even with the ground. Then pour some beer into the container, you don't have to fill the container to the top. The slugs are attracted to the beer. They crawl into the pans and the beer dissolves the mucus on their bodies. Then the slug cannot crawl out of the pan. Most of the slugs will die and sink to the bottom. Every so often empty out the pans and refill them with fresh beer. This should control your slug problem.

CANADA LILY

by Pam Wieringo

One of the most graceful of our tall lillies is the Canada or Wild Yellow lily *(Lilium canadense).* The nodding, bell-like flowers are 3-4" long and emerge singly or in small clusters from the top of an erect stem. It is the most yellow of our large, spotted lilies. There is also a less common red form. The six petals are actually three petals and three sepals, colored alike. They are flaring but not reflexed. There are six stamens and a long pistil ending in a three-lobed stigma.

The lanceolate leaves of the Canada lily are parallel veined, arranged in whorls of 4-8. The underside is rough to the touch. Plants grow from 2-5' from a loose, scaly bulb and there may be ten whorls on a plant. The fruit is a lobed, bulbous pod.

Watch for these blooms from June through August along the edge of woods, in moist meadows, and even in bogs.

LYME DISEASE

The spring rains provided a spectacular blooming season that is continuing into the summer. It also provided a lot of forest animals with a good healthy start on life. While you only catch a glimpse of most wildlife encountered on the trail, some of the forest inhabitants stick around a little longer — namely ticks. In addition to the discomfort caused by a tick bite, there is now the possibility of Lyme Disease. Transmitted by the bite of an infected tick, Lyme Disease has been reported primarily from coastal areas in the northeastern states, however isolated cases have been reported in Arkansas, Florida, Georgia, Indiana, Kentucky, Montana, North Carolina, Tennessee, Texas and Virginia.

The most characteristic sign of Lyme Disease is a skin lesion appearing 3 to 25 days after the victim has been bitten by an infected tick. Although highly variable, the lesion usually begins as a red spot, approximately two inches in diameter, often with a clear center, giving it a bulls-eye appearance. Within a few days, the rash can expand up to 10 to 15 inches. The lesion may be accompanied by fever, chills, headache and enlarged lymph nodes, but will generally subside, even without treatment within a few weeks. If left untreated, serious complications may appear weeks, even months after the initial lesion, including arthritic, neurologic and cardiac complications. The arthritic complications, which afflict two-thirds of the victims generally involve one or more of the large joints, and are often migratory. Attacks typically last about a week and can recur for several years. The optimal treatment for Lyme Disease has not yet been fully defined, however broad spectrum antibiotics have proven effective.

In the eastern states, the Northern Deer Tick (Ixodes daminii) carries the disease. This tick is much smaller than common wood or dog ticks and as its name suggests, is usually found in association with abundant deer herds. There is strong evidence the Lone Star ticks *(Ambloyomma americanum)* can also transmit the disease and that deer flies, horse flies, mosquitoes and other blood feeding arthopods serve as secondary vectors.

So, after a trip to the woods, be sure to check yourself and your children to make sure no ticks have "hitch-hiked" home with you.

NEW MEMBERSHIP BROCHURES

A special thanks to Bob Tuggle who has redesigned our BRC membership brochures. He, Bobby and Frieda Toler and Tom Toler were able to get them ready in time for the Pilgrimage weekend. If you haven't seen one, be sure to do so. We can be proud to offer these to prospective members.

APPALACHIAN TRAIL CONFERENCE MEETING

The 25th meeting of the Appalachian Trail Conference will be held in Lynchburg, VA from July 3 - July 10. The Appalachian Trail Conference is the parent organization for the 32 clubs and their many chapters that maintain the trail. This year marks the 50th anniversary of the completion of the Appalachian Trail. Over 50 hikes are planned for the week as well as 48 workshops and a variety of excursions. VWPS member Dorothy Bliss will present a workshop entitled Summer Wildflowers of the Blue Ridge on July 5. A sampling of other workshop titles includes Birds of the Blue Ridge, Photographic Composition, Snakes and Reptiles, and Geologic History or the Appalacian Trail.

For additional information write A.T. Conference '87, P.O. Box 20164, Roanoke, Virginia 24018.

PILGRIMAGE WEEKEND

by Ken Wieringo

After much planning, many meetings and amid forecasts of heavy downpours, the weekend for the Eighteenth Annual Spring Wildflower Pilgrimage arrived. Members, students and guests gathered at VWCC's new auditorium to hear Dr. Richard Lightly give an illustrated lecture, "Variations of Plant Populations" and attend a reception.

Localized flooding caused many of Saturday's walks and motorcades to be rerouted or cancelled. Saturday night's Dinner on the Roof had to be moved inside. This was followed by a slide presentation, synchronized to classical music, by Dr. George Beatty, "Wildflower of the Smokies — a Symphony," held in the Science Museum's Hopkins Planetarium.

Sunday dawned bright and clear and most events were held as scheduled. Dr. and Mrs. Beatty stayed over for our Monday night membership meeting. Their presentation, "Travels of Carl Linnaeus," gave us an opportunity to follow the paths traveled by Linnaeus as he journeyed through Lapland.

The BRC provided a wildflower display in the Science Museum during the month of April. Paul James and Sam Ellington, Rich Crites, and Bobby Toler using plants from their gardens, created two areas which highlighted the variety and attractiveness of wildflowers in limited spaces.

THE GREAT SMOKY MOUNTAINS FIELD TRIP

by Frieda Toler

There is no way to write about the Great Smoky Mountains Field Trip and adequately describe it. It became a four day event because some of the Blue Ridge Chapter Members arrived in Gatlinburg Thursday, April 30. More arrived on Friday, May 1 and Saturday, May 2. eighteen members assembled at the Sugarlands Visitors Center as a complete group.

Dorothy Bliss was leader for all the walks. Those who assembled on Friday went to Elkmont Nature Trail and feasted their eyes on the most spectacular ginger imaginable. The lobes of the calyx extended as much as three inches. It was *Ginger canadense* but an exceptionally beautiful variation of what is normally seen. *Orchis spectabilis* was seen all along the trail.

From there the group took Little River Road which follows Little River making stops at Wear Cove for picnic lunch, the Sinks, then Laurel Creek Road to Cades Cove. The land and the original buildings that remain are a living tribute to the pioneers who settled Cades Cove in the early 1800's. No wonder they treasured their isolation because the open farm and pasture land meet the mountains for splendid views. In the late afternoon deer were seen crossing the road.

Back in Pigeon Forge that evening was a parade for the opening of Dollywood. In the parade were Tennessee government officials, Archie Campbell and the star of the parade, Dolly Parton. She was warm and gracious to the fans who lined the parade route.

Saturday the group again used Sugarlands Visitor Center as the assembly point. There were stops at Campbell Overlook for a view of Mt. LeConte, then to Chimneys Picnic Area and Cove Hardwood Nature Trail. Many plants were identified from Jack in the Pulpit, Squirrel Corn and Phlox to the more rare Dwarf Ginseng, Silverbell, and interesting Grape Fern. Then on to Beech Gap where White Fringed Phacelia covered the hillside like a dusting of light snow. Finally to Newfound Gap and Clingmans Dome, the highest point in the Smokies at 6643 feet. The views were absolutely outstanding.

Bruce and Judy Boteler brought a grill from home and a cookout at Chimneys Picnic Area was enjoyed by all the group.

Sunday morning some of the group went to the Bud Ogle Place to walk the Nature Trail, several walked the Ashhopper Trail at Sugarlands and still others went to Starkeytown with George and Alice Beatty. They were volunteers at the Sugarlands Visitor Center showing their Smoky Mountain Symphony and Concerto slide programs.

Mention should be made that Yellow Sessile Trillium were to be seen everywhere, as were White Erectum Trillium. The early spring wildflowers were in great abundance everywhere. For those who rode down Main Street in Gatlinburg, Yellow Lady's Slippers were in bloom at the Cliff Dwellers Motel.

Things not to be forgotten include the beauty of Little River and the waterfalls, the absolutely perfect weather, the majesty of the mountains, the group fellowship and the opportunity to enjoy one small part of our beautiful world.

FIELD TRIP

Bill Hunley has been helping the A.T. Conference do a plant inventory at McAfee Knob. and on Saturday, May 30, sixteen members and guests gathered there for a group walk.

Putty root, stonecrop, Bowman's-root, Yellow Pimpernel and Golden Alexander were among the plants in bloom while ripe Sarvis Cherries *(Amelanchier)* provided a tasty snack. Many of the rocky banksides were graced with a variety of ferns, fungi, foliages, and masses of the white or pink stars of stonecrop, creating natural rock gardens. A terrapin, two snakes and a wild turkey added variety to this trip.

FOR THE BOOKSHELF

Oscar W. Gupton and Fred C. Swope, through University of Tennessee Press/ Knoxville, have published **"Wild Orchids of the Middle Atlantic States."** This covers the Virginias, the Carolinas, Kentucky, Tennessee, Maryland, and Delaware.

There are full page color photos, from the eye-catching to the inconspicuous. General appearance, leaf characteristics, color variation, similar species which might cause misidentification, flowering period, habitat and range are given for each species.

There is information on wild orchids in general, color group listings, botanical and common names.