

PRINCE WILLIAM WILDFLOWER SOCIETY, A Chapter of the Virginia Native Plant Society

MAY MEETING

Uses of Native American Plants by Native Americans.

Monday, May 20, 1991, 7:30 p.m.

Bethel Lutheran Church, Plantation Ln. & Sudley Rd., Manassas

The ways native American Indians used plants for food, medicine and many other purposes is a fascinating subject that we will explore at Monday night's membership meeting. Our speaker, Ruth Smith, a Northern Virginia resident and expert on Indian uses of native plants, will give us added appreciation for mayapple, bloodroot, lobelias, Joe-pye weed and other plants as she explains their past uses.

In the business portion of our meeting we will vote on proposed amendments to the by-laws, hear reports on our very successful garden tour, wildflower walks, and plant sale, and make plans for future projects such as the annual meeting and our display at the county fair.

Thanks to Sale Volunteers

Much of the success of the plant sale is the result of Chairman Nancy Vehrs' many hours of work and superb organizational skills. She potted over 400 plants, scheduled all volunteers, organized a smooth system for cashiers, and sent press releases to area newspapers. Thanks, Nancy!

The list of members who helped by furnishing and potting plants, transporting plants and setting up the sales area, serving as checkers and cashiers at the sale include: Nancy Arrington, Ken & Fran Bass, Jenifer & Brad Bradford, Marie & Paul & Brad Davis, Claudia Deahl, Kathy Ehrenberger & her daughter, Jeanne Endrikat & her daughter, Jeanne Fowler, Bill Hendrickson, Tracy Johnson, Kim Largen, Mary Lekander, Frances & Phil Louer, Val Neitzey, Helen Rawls, Mary & Bob Sigl, Nicky Staunton, Helen Walter, Lenore & Scott Winfield and Helen Winn.

Thanks to all for a job well done!

Thanks to Walk Leaders

Thanks to PWWS members Nancy Herwig and Marion Blois who led our spring wildflower walks. Nancy organized and led a walk to see the trilliums at Blue Mountain near Linden. She was assisted by Nicky Staunton and Helen Walter.

Marion led a walk at Balls Bluff in Loudoun County where participants saw many unusual wildflowers including twinleaf and shooting star.

NEXT MEETING

The July 15th membership meeting will be at 7:30 p.m., Bethel Lutheran Church, Manassas. PWWS members will present a slide program, "Wildflowers for Butterfly Gardens".

May Wildflower Walk

Marion Lobstein will lead a wildflower walk on Sunday, May 19, at Great Falls Park. Meet at 10:00 a.m. at the visitors center on the Virginia side of the park. For information call Marion, 536-7150.

Bat House Plans

Our March speaker, Jim Pomeroy, handed out plans for an easily constructed wooden bat house. If you'd like a copy, send a SASE to Bat Plan, P.O. Box 83, Manassas, VA 22110.

Thanks to Tour Volunteers

A special thank you goes to Helen Walter, Tour Coordinator, who mailed out tour brochures and coordinated refreshment and host volunteers. Thanks to all others who participated in a lovely tour:

- Gardeners who opened their gardens for the tour: Frances & Phil Louer, Roxetta & Russ Wyer and Joann Misontoni (garden designed, planted and maintained by Marie Davis).
- Members who provided the refreshments that were served at the Louer Garden: Marie Davis, Claudia Deahl, Phil & Frances Louer, Nancy Vehrs, Helen Walter. Joann Misontoni provided refreshments at her garden.
- Members who served as hosts at the gardens in addition to the Louers and Wyers at their own gardens and Marie Davis at the Misontoni garden: Nancy Arrington, Claudia Deahl, Jeanne Endrikat, Jeanne Fowler, Tracy Johnson, Helen Rawls, Kay Smallwood, Nancy Vehrs, Lenore Winfield and Helen Winn.
- Nicky Staunton for her original pen and ink sketches of the gardens and Nancy Arrington for preparing the tour folder and publicity.

WILD NEWS

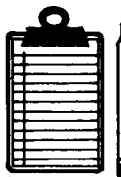
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President, Claudia Thompson-Deahl, 754-9235

Editor, Nancy Arrington, 368-8431

Artist, Nicky Staunton, 368-9803

Deadline for the July-August issue is July 1, 1991



FROM THE PRESIDENT

CLAUDIA THOMPSON-DEAHL

What a spring! The plant sale, garden tours and spring walks have all been well-attended and enjoyed by many members and non-members. Even the two gentlemen who came to the wildflower sale and just wanted to buy some cabbage plants couldn't go home empty-handed. They left with some wildflowers and hopefully will have a new appreciation for their new native plants. Thanks to hike leaders, garden owners and hosts, and plant sale workers -- everyone did a terrific job.

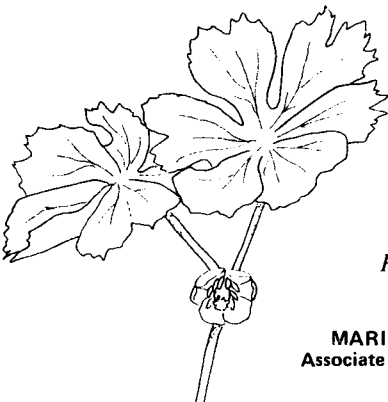
If you are doing any spring cleaning it's not too early to be thinking about the Society's Annual Auction held at the Annual Meeting. This year's meeting will be held in Virginia Beach in October. Floral items that sell well include art work, books, items made of wood and china, live plants (not wild-collected) or donations from businesses. Let's really support the state auction with a big turnout this year. Look for more information in our next newsletter.

This is the time of year when some people are still fertilizing their turfgrasses. Remember it is up to all of us to help protect the Chesapeake Bay and one of the pollutants is fertilizer run-off. Proper lawn maintenance should begin with a soil test - you can get free boxes for your sample at the extension service office on Sudley Rd. and get it tested by Virginia Tech for only \$6. You will get instructions with the boxes. Fertilizing turfgrasses in the fall instead of spring is recommended. If you use a lawn care company find out what they are spraying in your yard and why. A healthier environment depends on conscientious homeowners.

We are fortunate to have Ruth Smith speak on medicinal uses of native plants at our Monday night membership meeting. Come and give her a warm welcome -- see you there.

Board Meeting

The June Board of Directors meeting will be held Monday, June 17, 7:30 p.m. at Bethel Lutheran Church. Meetings are open to all members.



Mayapple

Podophyllum peltatum

MARION BLOIS LOBSTEIN
Associate Professor, Biology, NVCC

Because of its distinctive foliage mayapple (*Podophyllum peltatum*) is one of the most easily recognizable spring wildflowers. By early to mid-April the peltate leaves, resembling fat green umbrellas ready to unfurl, begin to poke through the forest litter. The forked stems bearing two leaves will have a tight flower bud nestled at the base of the two petioles. Single-leaved plants will not produce flowers. By the end of April or the first week of May the lovely waxy white flowers begin to open.

Mayapple is found in rich woods, thickets, and even roadsides from Quebec and Ontario south to Florida and Texas. This species is now placed in the Berberidaceae or barberry family although it was once included in the Ranunculaceae or buttercup family. Linnaeus assigned the binomial of *Podophyllum* from "podod" meaning foot and "phyllum" meaning leaf and *peltatum* meaning "shield". Other common names are mandrake, wild lemon and raccoon berry.

The flowers of mayapple are up to 2" in diameter with six sepals that are shed early in blooming, six to nine white waxy petals, numerous yellow stamens (usually twice the number of petals) with the anthers opening down the side, and a pistil with a large stigma. The flowers lack nectar but offer the native bees and bumblebees that visit them a rich pollen reward. There is a fragrance to the flowers that is a bit pungent or musky. The frequency of pollination success is often not that high in mayapple even though there is extended anthesis (shedding of pollen) as well as receptiveness of the stigma if pollination has not been accomplished. Queen bumblebees are especially attracted to mayapple flowers to collect pollen for rearing workers and thus may be primary pollinators.

Fruit set rates are often low for individual colonies of plants and mature fruits are even rarer. The 1-2" long lemon colored oval fruit is technically a berry. It matures in August or early September. When seeds remain in the same area as the parent colony the germination rate is low. If the seed does germinate, the seedlings may be shaded out by other plants the following spring. The Eastern box turtle is thought to be the primary seed

disperser. Studies have shown that passage of seeds through the digestive tract of the box turtle actually hastens germination. There is some evidence that the white-footed mouse, squirrel, grackle, opossum, fox, raccoon, and even black bear may be seed dispersers.

Each plant has one or two deeply devided, umbrella-like leaves that may be up to 10" across. Plants can be up to 15" tall. The underground storage structure is a rhizome that has thick fibrous roots. The mayapple may put up to 40% of its energy into its underground rhizome compared to only 8% of its energy into sexual reproduction. The rhizome is the main method of producing new plants. A colony of mayapple plants may all have developed from a single seed. A seedling will not form a rhizome until it is over five years old and may not produce blooms until it is 12 years old. Colonies grow at a rate of 5" per year and larger colonies may be more than 100 years old. One colony may contain up to 1000 shoots. When an individual plant has produced mature fruit during a given season, it will have decreased rhizome growth and decreased chance of being forked and producing flowers the next year. Single leaved plants and plants that haven't produced fruit usually senesce by early summer. Leaves persist or plants that have maturing fruit.

Immature fruits and the vegetative structures of mayapple are poisonous. As with many drugs there is a fine line between poison and effective medicinal use. The American Indians ate the ripe fruits and had a number of medicinal uses of mayapple preparations. The list of Indian uses included treatment of rheumatism, as a laxative as well as for diarrhea, ulcers, sores, liver and bile problems, hemorrhoids, headaches, diuretic, whooping cough, cholera, pneumonia, problems of male and female reproductive tracts, purgative, and antihelmenthic (worming) purposes. Reportedly some Indian tribes even used rhizomes of this plant to commit suicide. Later it was used as the active ingredient in Carter's Little Liver Pills and as an extract called "Podophyllin" to remove genital warts.

Now drugs derived from mayapple rhizomes are being used in Europe and are being tested in this country to treat five or six forms of cancer including cancer of the testes, two forms of lung cancer, Kaposi sarcoma, and some forms of leukemia. It has also been used to treat syphilis. There is some evidence that Indians also used this plant to treat forms of cancer such as ovarian and skin cancer. The ripe fruits are edible and are used in recipes for jellies and pies; extracted juice can be added to lemonade.

This spring enjoy the quiet beauty of mayapple. Be very cautious if you wish to sample the fruit. You must wait until it is ripe but you'll be lucky to get to it before the forest animals do.

NATIVES FOR THE GARDEN

NANCY ARRINGTON
Propagation Chairman



Mayapple

Podophyllum peltatum

If mayapple were a rare and difficult to grow species more gardeners would appreciate it for the handsome foliage plant that it is. The 8-10" shiny lobed leaves on 12-15" stems make an excellent ground cover in large shady areas and a single clump is an interesting accent plant for a small garden. The 1½-2" solitary white flowers produced by double-leaved plants and the greenish-yellow fruit that follows are attractive in late spring and early summer.

Mayapple grows naturally in moist open woods, clearings and roadsides throughout the eastern half of the United States and is recorded in every Virginia county in the Atlas of the Virginia Flora.

In a rich moist soil plants will spread quickly by underground rhizomes and soon carpet a large area. They adapt well to dry shade and will spread more

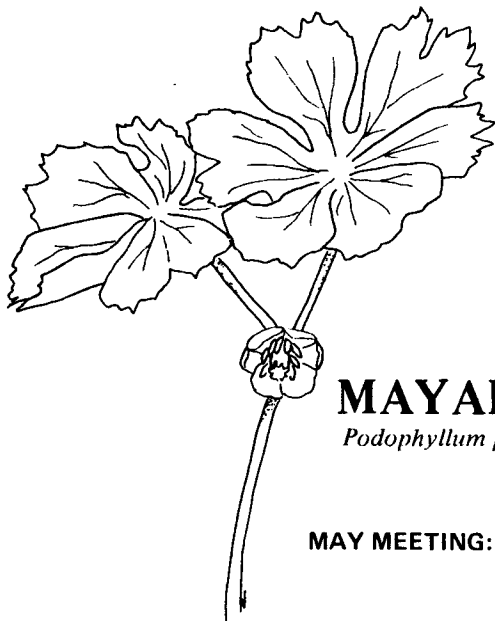
slowly in less than ideal conditions. With extra humus and moisture in the soil mayapple will grow in full sun. Plants are shallow-rooted and fairly easy to dig or pull out of places they aren't wanted.

Mayapple can be used as a ground cover in a large naturalistic shade garden. Numerous underground rhizomes make it a good plant for erosion control on shady slopes. Small wildflowers may die out in the shade of mayapple's umbrella-like leaves but some species that compete successfully are violets (*Viola spp.*), wild blue phlox (*P. divaricata*), false Solomon's-seal (*Smilacina racemosa*) and hay-scented fern (*Dennstaedtia punctilobula*). The foliage of all these remain after mayapple goes dormant by mid-summer.

In a small garden a clump of mayapple makes a lovely foliage accent. (A clump can be kept contained by planting it in a bottomless can.) PWWS member and garden designer Marie Davis combines mayapple with blue phlox, yellow violets (*V. pensylvanica*) and Dutchmen's-breeches (*Dicentra cucullaria*) with an edging of wild stonecrop (*Sedum ternatum*).

Plants are easily propagated by division and can be moved any time. Wear gloves or wash your hands after handling the roots because all parts of the plant except the fully ripe fruit are poisonous and can cause a rash on sensitive skin.

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