



WILD NEWS

Prince William Wildflower Society

A Chapter of the Virginia Native Plant Society

Number 2015-04

July-August 2015

Prince William Wildflower Society Membership Meeting, Monday, July 20, 2015, 7:30 p.m., Bethel Lutheran Church 8712 Plantation Lane, Manassas, Virginia 20110

"Lessons Learned: Meadows," with Nancy Berlin, natural resource specialist and coordinator of the Virginia Cooperative Extension Master Gardener program.

The program will feature lessons learned by the speaker while establishing a meadow for Master Gardeners and two small meadows on her own property.

Nancy loves her job! She currently serves Prince William County, Manassas City, and Manassas Park as a natural resource specialist and coordinator of the Virginia Cooperative Extension Master Gardener program. Nancy studied natural resources at Virginia Tech.

The Master Gardener program has 200 active, trained volunteers who serve as educators teaching our community more environmentally savvy lawn care, landscaping, pest management, and wildlife and water quality programs. Please join us for this fun and informative program. Refreshments will be served and doorprizes awarded! PWWS meetings are free and open to the public.

EVENTS

JULY

Monday, July 20, 2015, 7:30 p.m., Bethel Lutheran Church, Manassas PWWS Membership Meeting, "Lessons Learned: Meadows," with Nancy Berlin, coordinator of PWC Master Gardener program.



Tuesday, July 21, 9:00 a.m. and Sunday, July 26, at 2:00 p.m., Wildlife Garden Workdays, Prince William Conservation Alliance, Stone House at Merrimac Farm, 15020 Deepwood Lane, Nokesville. We planted more than 50 trees and shrubs this last spring and the wildlife garden is taking shape. Please join us for a morning of weeding, pruning, watering, and wildlife watching. We appreciate your help! More info and RSVP (appreciated not required) to PWCA (703) 499-4954 or alliance@pwconserve.org.

Sunday, July 26, Bird Walks at Merrimac Farm, 8:00 a.m. Meet at Merrimac Farm, Stone House, 15020 Deepwood Lane, Nokesville, Va. We'll look for birds as we travel through the uplands to the edge of the floodplain, covering a variety of habitats, including open fields and woodland edges. Everyone is welcome. Dress for the weather, bring binoculars and cameras. More info and RSVP (appreciated not required) to PWCA (703) 499-4954 or alliance@pwconserve.org. [Also see Sunday, August 30 for similar walk]. Bird list for Merrimac Farm is available at <http://www.pwconserve.org/wildlife/birds/lists/merrimacfarmhtm>.

AUGUST

Thursday, August 20, 2015, 9:00 a.m. to 11:00 a.m. Walk with Marion Lobstein at Deep Cut, Manassas National Battlefield Park.

This walk is sponsored by PWWS and is open and free to the public. Come out and enjoy the



colorful variety of beautiful late summer wildflowers such as scaly blazing star and showy grasses such as Indian Grass. This is an easy walk, but come prepared for warm temperatures and to minimize tick exposure. Please contact Marion to register or for questions regarding the walk: mblobsstein@earthlink.net or call (703) 622-0676.

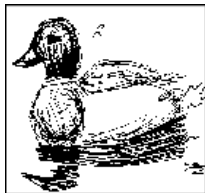
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MARK THE MONDAYS: UPCOMING 2015 PWWS MEMBERSHIP MEETINGS



Monday, September 21, 2015, Bethel Lutheran Church, Manassas, 7:30 p.m. Prince William Wildflower Society celebrates its annual meeting with a presentation by R. Christian Jones, professor and director of Potomac Environmental Research and Education Center (PEREC) at George Mason University. Dr. Jones is a

freshwater ecologist whose research focus includes tidal freshwater ecosystems (emphasizing plankton and macrophytes), stream ecology (emphasizing benthic macroinvertebrates), and watershed management.



Monday, November 16, 2015, 7:30 p.m., Bethel Lutheran Church, Prince William Wildflower Society's November membership meeting will feature T'ai Roulston, curator and research associate professor of the State Arboretum of Virginia at Blandy.

Dr. Roulston will talk to us about native pollinators, particularly wild bee species, and

their connections to native Virginia plants. He will also discuss "insect hotels."

Prince William Wildflower Society Meeting Minutes, Monday, May 18, 2015, Bethel Lutheran Church, Manassas, Va.

PWWS president Nancy Vehrs welcomed all and asked everyone to sign in, and encouraged all to take a doorprize ticket.

Program: Nancy introduced our guest speaker, Marcia Mabee, conservation committee chair of VNPS. Marcia is the owner of Naked Mountain in Nelson County, and she spoke about the "Delights and Challenges of Owning One of Virginia's Natural Area Preserves."

Ms. Mabee and her late husband purchased Naked Mountain in 1988 and in 1995, built a small house on the property. Marcia showed us compelling photos of the wildflowers, geological findings, and the rare natural plant and animal communities and species that were discovered on the mountain. Invasive plants also were found on the property, and she discussed the methods of controlling them. Marcia also explained the process of applying for a Virginia Natural Area Preserve designation, which was granted in 2006 for the property. At that time, Naked Mountain was the 49th such preserve in Virginia (now numbering 62) that are managed by the Natural Heritage Division of the Virginia Department of Conservation and Recreation.

Announcements: Nancy Vehrs thanked Rose Breece, Brenda Hallam, and Joyce Andrew for bringing refreshments.

Nancy Arrington, chair of the PWWS annual native plant sale, reported a total of \$3,600 from our May 2015 plant sale. Nancy and all those who helped with our only fundraiser were asked to stand and be recognized.

Doorprizes of native plants and related books were handed out to the recipients of lucky tickets: Jacks-in-the-pulpit went to Rose Breece and Glen Macdonald, Trumpet vine to Tamie Boone, Milkweed to Karen Bravo, Golden alexanders to David Hopwood; books *Wildflowers and Grasses of the Virginia Coastal Plain* and *Isabella's Peppermint Flowers* went respectively to Joyce Andrew and Suzy Stasulis.

In attendance: Tamie Boone, Suzy Stasulis, Harry Glasgow, Michelle Borzillo, Lois Montgomery, Sheryl Pollack, Helen Rawls, Marion Lobstein, Jeanne Endrikat, Anna Ritter, Janie Ritter, Janet Wheatcraft, Janis Stone, Deanna High, Jack High, Rose Breece, David Hopwood, Reed Hopwood, Nancy Vehrs, Carol Thompson, Nancy Arrington, Nell Benton, Dee Brown, Glen Macdonald, Beverly Huston, Veronica Tangiri, Mary Sherman, Su Kim, Joyce Andrew, Karen Bravo, and Karen Waltman. ~Respectively submitted, Karen Waltman, secretary, PWWS

FAIRY CANDLES, BUTTERFLIES, and ANTS

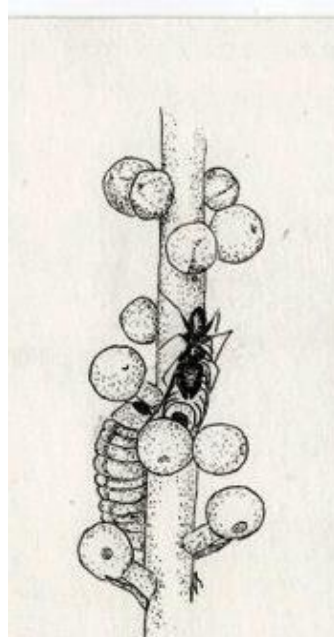
Article, photo, and illustrations by Nicky Staunton

[Reprinted with permission from the *Blazing Star*, Spring 2015, v. 16, no. 2, newsletter of the North American Native Plant Society]

During a visit to Shenandoah National Park in Virginia in May 1957, I was captivated by drifts of willowy, white, wand-like flowers emerging in the forest's middle canopy. They lit the shadows with floral magic amid layers of spring-green trees and shrubs. The park brochure helped me identify the flowers as *Actaea racemosa*, commonly known as fairy candles around here. In scientific circles the plant is also known as *Cimicifuga racemosa*; other common names are black cohosh, black baneberry or black bugbane. This plant had a secret I had yet to uncover.

Almost 50 years later, I discovered fairy candles on a hillside of the wooded dell that became my new home. The land is in the Piedmont foothills of the Appalachian range and Shenandoah National Park, central section, not far from the site of that 1957 trip. To visit this enchanted ecosystem, I step off my porch, walk downhill across the forest floor of the dell and up the opposite rocky side to Parish Mountain. *Actaea racemosa* is native to woodland habitats in eastern North America from the extreme south of Ontario to central Georgia, and west to Missouri and Arkansas. It prefers mesic to dry forests, usually in base-rich soils. It is abundant in rich cover forests and rich montane oak-hickory forests. It is commonly found in the mountains, infrequently in the coastal plains. Living near the fairy candles, I've learned that tiny Appalachian azure butterflies (*Celastrina neglectamajor*) are dependent on *Actaea racemosa*, the solitary host plant for the single brood of this species of butterfly. During my first spring here, in mid-May, I found an insect feasting on the new white buds of the racemes of "my" fairy candles. I was puzzled by what I saw.

Many buds had bites, some were empty shells destroyed by a minute slug-like larva. My first – gardener's – impulse was to dislodge the mystery destroyer but something stopped me. Ants were accompanying the insect larvae which were less than two-fifths of an inch (a centimetre) long and pale white-green during the first of their four instars (developmental stages). I recalled reports of cooperative behavior between ants and butterfly larvae. This sent the naturalist in me running home to my books and the



Black cohosh in bud with myrmecophilous caterpillars of Appalachian blue butterfly and an eastern black woods ant tending them for honeydew.

Internet to learn that this particular larva was an Appalachian azure.

In *The Biology, Life History and Taxonomy of Celastrina neglectamajor*, Harry L. Parulvaan and David M. Wright report that *Celastrina* larvae have a dorsal gland on the seventh abdominal segment that exudes drops of sweet fluid. Ants can be seen running up and down the caterpillars' backs, drumming, tickling and caressing them with their antennae to stimulate production of the treasured drops. A member of the family Lycaenidae, the Appalachian azure caterpillar communicates that a drop of honeydew is available by producing unusual calls. David Wagner in his book *Caterpillars of Eastern North America* explains: "Ant-tended lycaenids have files, scrapers, or other means of producing substrate-borne calls that can be employed to 'call' for ants. Nearby ants detect the 'singing' caterpillar

by the vibrations that emanate through the foodplant." (To read more, visit <http://lepsurvey.carolinanature.com/ttr/ttr-6-6.pdf>.)

In this relationship (which is reciprocal at least during the larval stage of the caterpillar), the ants offer protection to the caterpillar.

Researchers have reported observing ants positioning themselves over the caterpillar, keeping away red mites, parasitoid flies or wasps and predatory insects. No doubt from personal experience, authors Parulvaan and Wright report that these ants will even bite a human finger appearing to threaten their caterpillar! David Wagner notes that nearly half the members of the Lycaenidae are tended by ants. With some butterfly species (Appalachian azure is one) the ants sometimes carry the caterpillar to their nests to farm it, coaxing it to produce the sweet drop, then returning it to its host plant. However, should ant famines occur, the caterpillar might be

eaten or vice versa. Numerous species of ants can be involved in this relationship called myrmecophily.

The Appalachian azure butterfly is endemic to the eastern deciduous forests where black cohosh is established in the central and southern Appalachians from southern Pennsylvania south to northern Georgia. Isolated populations exist in southwest Missouri, eastern Tennessee, central Kentucky, southern Ohio and Canada's Carolinian forests in southern Ontario. A pale chalky blue, the Appalachian azure is the largest of our three azure butterfly species. Oddly, I have never seen

this butterfly long enough to make a positive identification, but I have identified the larvae. Since the azure has a wingspan of



Actaea racemosa buds with Celastrina neglectamajor caterpillar

about half an inch (1.5 centimetres), you have to be quick to identify such a small creature by any other feature than its proximity to fairy candles. Another factor working against accurate identification is that the species has only one brood a year.

Celastrina major larvae emerge in May. Spring azures (*Celastrina ladon*) also have only one brood from April to mid-May. Their larval food plants are primarily the buds of flowering dogwoods (*Cornus florida*), but also blueberries (*Vaccinium* spp.), viburnums (*Viburnum* spp.) and others. Summer azures (*Celastrina neglecta*) have multiple broods that emerge from May into the fall. Their caterpillars feed on dogwoods (*Cornus* spp.), viburnums, New Jersey tea (*Ceanothus americanus*), blueberries, meadowsweet (*Spiraea salicifolia*) and staghorn sumac (*Rhus typhina*). *Celastrina neglecta* will nectar on a wide range of flowers. The variant emergence of these plant and butterfly species reduces butterfly cross breeding. The spring and summer azures have a broad geographic range throughout most of eastern and central United States and southern Canada. Although the status of the Appalachian azure is currently secure, *Actaea racemosa* is



Drift of fairy candles in Parish Mountain woodland.

threatened by climate change, rapid land development and harvesting of wild plants. It is listed as Endangered in Illinois and Massachusetts and is considered Extirpated in several other states. Both the azure and its host plant are being monitored in the United States. In Canada, *Actaea racemosa* has not been assessed by the Committee on the Status of Endangered Wildlife (COSEWIC) and is not on the COSEWIC Candidate List.

Had the gardener in me acted before the naturalist when I saw the caterpillar chowing down on fairy candles, I would have come to regret interrupting a natural order that I had not yet understood. The Aldo Leopold quote comes to mind, "To keep every cog and wheel is the first precaution of intelligent tinkering."

Nicky Staunton is a charter member and past president of the Virginia Native Plant Society and a nature writer, illustrator, and photographer.

[Continuation of the series of articles by PWWS Botany Chair Marion Lobstein highlighting taxonomic changes in the native plants of Virginia will return with the September-October 2015 issue of *Wild News*.]



Cimicifuga racemosa.

PRINCE WILLIAM WILDFLOWER SOCIETY
A Chapter of the Virginia Native Plant Society
P.O. Box 83, Manassas, Virginia, 20108-0083

Next Meeting: Monday, July 20, 2015, 7:30 p.m.

"Lessons Learned: Meadows" with Nancy Berlin, Virginia Cooperative Ext. Master Gardener program
Bethel Evangelical Lutheran Church, 8712 Plantation Lane, Manassas, Virginia 20110