



Shenandoah Chapter Virginia Native Plant Society May 2015

Mission Statement:

We are a conservation organization dedicated to conserve Virginia's native plants and their ecosystems through education, advocacy and activities that promote appreciation, stewardship and appropriate use.

Upcoming Events:

**Saturday May 2 Shenandoah Chapter Native Plant Sale
Riverfest Waynesboro 10-12**

CONTACT: Anneli Tattersall at 540-248-0932, annelitatt@yahoo.com, or Eleanor Baker, 443-797-2824, eleanorbaker24@yahoo.com.

Friday, May 15, 10 am. Outing to Cowbane Prairie, Stuart's Draft, Augusta County
Leader: Adam Christie, Shenandoah Region Steward for Division of Natural Heritage

Contact to sign up: Chris Bowlen. Carpooling from Harrisonburg area available. 540-289-6801.
bowlenchris@comcast.net. Start time could change so please contact by May 13 to receive updates.

Flat area, very little tree coverage, can be soggy with a lot of dense vegetation. Bring water and lunch.
SITE DESCRIPTION: On the western slope of the Blue Ridge in the Shenandoah Valley, Cowbane Prairie NAP protects outstanding examples of wet prairies, mesic prairies, and calcareous spring marshes which were once common natural communities in the Shenandoah Valley. These communities have been reduced over the years by agricultural and industrial development. Eleven rare plants including queen-of-the-prairie (*Filipendula rubra*), blueflag iris (*Iris versicolor*), and marsh-speedwell are found at the preserve. Additionally, a reach of the South River within Cowbane Prairie NAP also provides habitat for two watch-listed freshwater mussel species.

Other Activities

Saturday May 2 Wildflower Hike MauHar Trail

The PATC Charlottesville Chapter will do a 8 mile wildflower hike led by VNPS chapter member Mike Seth. For further information contact Mike Seth sethmj@jmu.edu or see the PATC website patc.net

Saturday May 2 Birds of the Burg Bird Walk and Families. Hillendale Park 8:30 Sierra Club. Contact Ralph Grove ralph.grove@gmail.com or (540.478.3677)

Monday May 4 Film *Won't Pipe Down*. Wild Virginia and the Sierra Club and teaming to show this film made by four James Madison University Students followed by a panel discussion about the proposed Atlantic Coast Pipeline. Court House Square Theater, Harrisonburg 7:00-9:00 pm, admission free.

Saturday May 9 Madison Run Wildflower Walk. Pink Lady Slippers, Lupine, Wild Geraniums and more. Karen Lee, Leekr@jmu.edu, 540-828-3011.

Sunday May 10. Hike and Nature Walk Sky Meadows. Sierra Club will hike at 9:00 at the Sky Meadows State Park in Delaplane. Contact Ralph Grove ralph.grove@gmail.com or (540.478.3677)

Monday May 11, & Monday June 8, 2015, *Monarchs at the Arboretum*, Edith J. Carrier Arboretum at JMU. Noon—1:00 pm in the FPEC. A three session (attend one or attend all three) workshop series with facilitator, Gail Napora, exploring the Monarch butterfly, its migration, life cycle, habitat needs and much more. This is a program for all ages. Young and Old will enjoy the thrill of releasing Monarchs at the arboretum at the second and third sessions. Online registration opens 30 days in advance of this session. Contract jmu.edu/arboretum or call (540) 568-3194

Friday May 15 & Saturday May 16, 2015, *Spring Celebration Plant Sale*, 9-3pm Friday & Saturday. Wide selection of plants, shrubs and trees to make any home or business landscape ecofriendly and lovely, with Saturday educational activities that may include a lecture, demonstrations, ask-an-expert, raffles, live music, and a butterfly release. Contract jmu.edu/arboretum or call (540) 568-3194.

Saturday May 16. Hike Camp Hoover. Great place for spring wildflowers. Sierra Club at 10:00. Contact Ralph Grove ralph.grove@gmail.com or (540.478.3677)

Friday May 22, 2015, *Wine and Cheese on the Ernst Terrace*, Edith J. Carrier Arboretum at JMU 5:00—7:00 pm, Friday, Arrival at 5:00 Demo at 5:30 and Lecture at 6:00. Online Registration opens 30 days before event. Contract jmu.edu/arboretum or call (540) 568-3194

Saturday May 30 Elliot Knob Hike. South Shenandoah Valley Chapter PATC. For more information contact: ssvc.org.

Mid June through July, 2015, Edith J. Carrier Arboretum at JMU *Summer Brown Bag Lunch Lecture Series*, *date to be announced online approximately a month ahead* at noon, in the Pavilion, Wednesdays (unless otherwise noted and except July 4th week), free, no advance registration needed, enjoy lunch and a great topical lecture. Contract jmu.edu/arboretum or call (540) 568-3194

Saturday June 27 Cranberry Glades, W.Va. Very rare trees shrubs and wildflowers. This is the southernmost extent of their range i.e. Cranberries, Red Spruce, Red Elderberry. Rare White Monkshood, Canada Lilly, Rhododendrons, Mtn. Laurel, several rare orchids). Contact Karen Lee, Leekr@jmu.edu, 540-828-3011.

Recent Activities

Our winter botany walk led by Chris Bohlen on Sunday February 15 did not take place. Although 18 had signed up all but two cancelled out. The morning temperatures in the single digits with wind chills at or below zero may account from this. We are after all the Virginia – not the North Dakota – Native Plant Society.

Invasive Plant of the Month: Oriental-Bittersweet

Mile-a-minute *Persicaria perfoliata*

Family: Buckwheat (Polygonaceae)

This is listed by the Virginia Department of Conservation and Recreation as a “highly ranked” invasive. It is not so common yet in most of area but it is spreading. Found mostly in the more northern part of the state it has been found as in the Grottoes area among other places in our region.

Like so many of our invasives it comes from East Asia. The Chinese have used it for medicine- as a diuretic and anti-inflammatory agent.

It has a reddish stem that is armed with downward pointing hooks or barbs which are also present on the underside of the leaf blades. The light green colored leaves are shaped like an equilateral (equal-sided) triangle and alternate along the narrow, delicate stems. Distinctive circular, cup-shaped leafy structures, called ocreas, surround the stem at intervals. Flower buds, and later flowers and fruits, emerge from within the ocreas. Flowers are small, white and generally inconspicuous. The fruits are attractive, metallic blue and segmented, each segment containing a single glossy, black or reddish-black seed.

Persicaria perfoliata weed generally colonizes open and warm areas, along the edges of woods, wetlands, stream banks, and roadsides, and uncultivated open fields, resulting from both natural and human causes, dense wooded areas where

the overstory has opened up increasing the sunlight to the forest floor. Natural areas such as stream banks, parks, open space, road shoulders, forest edges and fence lines are all typical areas to find *P. perfoliata*. It also occurs in environments that are extremely wet with poor soil structure. Available light and soil moisture are both integral to the successful colonization of this species. It will tolerate shade for a part of the day, but needs a good percentage, 63-100% of the available light. The ability of *P. perfoliata* to attach to other plants with its recurved barbs and climb over the plants to reach an area of high light intensity is a key to its survival. It can survive in areas with relatively low soil moisture, but demonstrates a preference for high soil moisture.

The first records of *Persicaria perfoliata* in North America are from Portland, Oregon (1890) and Beltsville, Maryland (1937). Both of these sites were eliminated or did not establish permanent populations of the species. However, the introduction of *P. perfoliata* somewhere between the late 1930s and 1946 to a nursery site in Stewartstown, York County, Pennsylvania did produce a successful population of this plant. It is speculated that the seed was spread with Rhododendron stock. The owner of the nursery was interested in the plant and allowed it to reproduce; subsequent efforts to eradicate it were not successful. The distribution of *P. perfoliata* has radiated from the York County site into neighboring states. Fifty-five years after its introduction, the range for this plant in the United States had extended as far as 300 miles (480 km) in several directions from the York County, Pennsylvania site.

Persicaria perfoliata is primarily a self-pollinating plant (supported by its inconspicuous, closed flowers and lack of a detectable scent), with occasional outcrossing. Fruits and viable seeds are produced without assistance from pollinators. Vegetative propagation from roots has not been successful for this plant. It is a very tender annual, withering with a slight frost, and reproduces successfully until the first frost. *Persicaria perfoliata* is a prolific seeder, producing many seeds on a single plant over a long season, from June until October in Virginia, and a slightly shorter season in more northern geographic areas. It can cover as much as 30 feet (9.1 m) in a single season, maybe even more in the southern United States.

Birds are probably the primary long-distance dispersal agents of *P. perfoliata*. Transport of seeds short distances by native ant species has been observed. This activity is probably encouraged by the presence of a tiny white food body (elaiosome) on the tip of the seed that may be attractive to the ants. These seed-carrying ants may play an important role in the survival and germination of the seeds of *P. perfoliata*. Local bird populations are important for dispersal under utility lines, bird feeders, fence lines and other perching locations. Other animals observed eating its fruits are chipmunks, squirrel and deer.

Water is also an important mode of dispersal. Its fruits can remain buoyant for 7–9 days, an important advantage for dispersing seed long distances in stream and river environments. The long vines frequently hang over waterways, allowing fruits that detach to be carried away in the water current. During storm events the potential spread of this plant is greatly increased throughout watersheds.

Hand removal of seedlings throughout the growing season is the most effective traditional control, though hardly practical for a wide-range program. Broad-spectrum herbicides, though effective, are not practical in many infested areas due to close involvement of native vegetation. A non-systemic herbicidal soap is the preferred chemical treatment, but must be reapplied throughout the season to staunch new growth.

In 2004 the USDA approved the rearing and release of *Rhynoncomimus latipes*, a tiny stem-feeding weevil from China. In several *Persicaria*-infested release sites in New Jersey heavy defoliation of the targets occurred in the space of a few years post-release. The weevil has since been found feeding on *Persicaria* throughout the



Mile-a-minute: note the distinctive triangular leaves Source. Commonweeder.com

Sources: <http://www.invasivespeciesinfo.gov/plants/mileminute.shtml>; Wikipedia

Plant Trivia

As mentioned in the last newsletter, according to the International Union for Conservation of Nature and Natural Resources, 2006 there are 258,000 species of flowering plants (Magnoliophyta) in the world. They are divided into approximately 420 families. The ten largest in terms of numbers of species are:

1. Asteraceae (aster family) with 22,750 species
2. Orchidaceae (orchid family) with 21,950
3. Fabaceae (bean family) with 19,400 species
4. Rubiaceae (madder family) with 13,150
5. Poaceae or Gramineae (grass family) 10,035
6. Lamiaceae or Labiatae (mint family) 7,175
7. Euphorbiaceae (spurge family) 5,735
8. Melastomataceae (melastome family) 5,005
9. Myrtaceae (myrtle family) 4,625
10. Apocynaceae (dogbane family) 4,555

All found in our state. Melastome family is mainly tropical but is represented by the *Rhexia* (Meadow Beauty) genus. Myrtle family is not native to Virginia. The other eight families are well represented in the state.

Our Chapter Had a Very Successful Plant Sale on April 18. Picture below.



Please send any articles or announcements to Elaine Smith, antigone16@comcast.net.