
WILDFLOWERS

The Bulletin of the Botanical Society of Western Pennsylvania • October and November 2001

The Next Meeting is October 8

The next meeting will be Monday, October 8, 8:00 p.m., at Kresge Theater, Carlow College, 3333 Fifth Avenue, Pittsburgh, PA (Oakland). Kresge Theater is on the top floor of the Grace Library and is accessed from the upper campus.

Mark Bowers will present **Fruits and Seeds**. Mark is a geologist with an intense interest in botany. He performs wetland delineations and site surveys for rare and endangered plants.

Botanizing and pondering the relationship of plants to their environment (geology, soil, hydrology, etc.) is a passion. Mark has been a member of the Botanical Society for 20 years.

Bring your favorite nut, fruit or seed to this presentation!

November's Meeting is November 12

Joan Gottlieb will present **The Flora of Ecuador**. From the Andes to the Amazon and out to the Galapagos, Ecuador's flora, while all sitting on the equator, has evolved in a wide variety of habitats, elevations, and degrees of isolation. The biodiversity of the tropics is well illustrated in Ecuador, and the presentation will include some remarkable examples. There might also be a few boobies thrown in just for fun!

Joan Gottlieb has an M.S. and Ph.D. from Harvard University. She taught biology and science at a number of universities and secondary schools. Joan's main interest is ferns; she is the author of many articles and is currently the editor of the "Directory of Fern Gardens, Nurseries and Reserves."

Outing Report: The Mayview Buckeyes

Twenty-five members of the Botanical Society of Western Pennsylvania visited the Chartiers Creek floodplain in the Boyce Mayview Regional Park on August 25, 2001. Several members tried to identify the species of a stand of trees in the genus *Aesculus*. The buckeye trees exhibited characteristics of both Yellow Buckeye, *Aesculus octandra* (syn *A. flava*), and Ohio Buckeye, *A. glabra*.

The observers found a variety of fruit types. Some fruits were smooth, over 5 cm and contained 2 or more seeds indicating Yellow Buckeye; other fruit had varying amounts of prickles, contained only 1 seed and were less than 4 cm. This fruit type is found on Ohio Buckeye. However, some fruit over 5 cm had some prickles. Some trees had both types of fruit.

Other characteristics the field guides used to distinguish between the two species were the width of the outer leaflet and the odor when the leaves were crushed. The leaf proportions were not clear-cut and, although the bark had a faint odor, it was not nearly as strong as the books indicated.

The alluvial floodplain and bottomland forest at Boyce Mayview is acceptable habitat for both species. Also the Chartiers watershed is within the range of both. Otto E. Jennings, in *Wildflowers of Western Pennsylvania and the Upper Ohio Basin (1950)*, lists the Ohio, Beaver and Monongahela Rivers as traditional barriers to the eastern dispersal of buckeyes. Chartiers Creek flows west from the Ohio River.

One significant character we could not examine was the flowers. From the key to the species for the genera *Aesculus* in Jennings: *Aesculus glabra* (Ohio Buckeye) - Flowers yellow or greenish-yellow; a native species. *A. octandra* (Yellow Buckeye) - Anthers not longer than the petals; fruit smooth or scaly. Jennings gives the flower color for this species as reddish-purple or yellowish.

In my files I found several photographs of the flower heads from the spring of 1999. They showed the anthers clearly longer than the yellow petals.

Several Botanical Society members speculated that both species were present as well as hybrids of the two. According to the literature, hybrids are not unprecedented. The section on "genetics" in *The Silvics of North America: Volume 2, The Hardwoods*, (United States Department of Agriculture, 1990) gives this documentation of *Aesculus* hybridization:

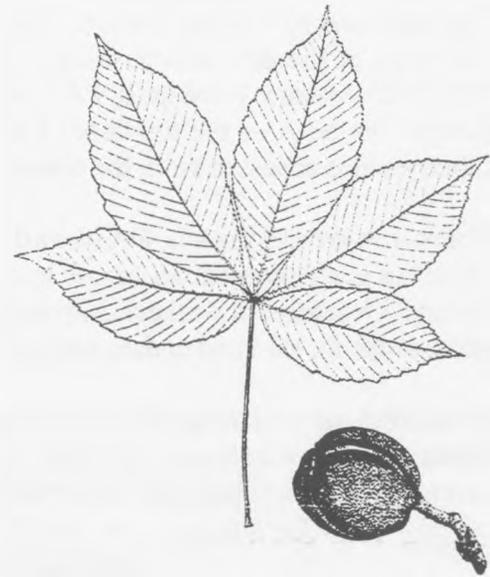
The buckeyes frequently have chromosome irregularity and pollen is often sterile. This has been considered as evidence of hybridization among the various buckeyes. One report indicated that in glaciated areas where *Aesculus octandra* is not found, its germ plasm has infiltrated the populations of *A. glabra*. *A. octandra* and *A. glabra* do hybridize, and intermediates showing the characters of both species occur as hybrid swarms. More often, individual plants of one species have one or more characters from introgression with the other species.

I accept the fact that the Boyce Mayview buckeyes are indeed hybrids. This raises several more questions. There was an excellent age mix of trunk sizes that indicated the buckeyes were reproducing. Would the trees, however, continue to reproduce and would they maintain their vigor? Would the characteristics of one species gradually disappear in future generations? Did the hybridization occur naturally, or did the genes of one of the species arrive with the help of people? Did Chartiers Creek carry buckeyes from an ornamental tree in

a backyard upstream? Could a honeybee carry pollen from a tree planted on the nearby hospital grounds?

They are not clearly one species or the other, but observing the processes of nature at work is certainly more fascinating than checking off a new species.

Chuck Tague



Aesculus octandra (syn. *A. flava*) – Yellow Buckeye

How can you get your copy of Wildflowers of Pennsylvania?

Wildflowers of Pennsylvania can be purchased for \$20.00 (plus \$1.40 sales tax for PA residents). Forward your check, made payable to Botanical Society of Western PA, to Dr. Haywood at the address below. If you order by mail, add \$2 postage and handling for one book, \$3.00 for two, \$4.00 for three, \$4.50 for four.

Call or e-mail Dr. Haywood if you would like her to send book order forms to pass along to your friends or organizations.

Dr. Haywood reports that sales have been going well. Many members have been selling them as they give presentations, lead field trips, and

participate in other activities. If you wish to sell some, call or e-mail her and she will be happy to make arrangements for delivery or pick-up.

Dr. Mary Joy Haywood, RSM, Ph.D.
3333 Fifth Avenue, Pittsburgh, PA 15213-3165
(412) 578-6175; mjhaywood@carlow.edu

Why Do Some Plants Stay Green All Winter?

Why do some plants stay green all winter? Join Dr. David Jett and naturalist Patty Himes for a Winter Weed Walk at the Frick Nature Reserve on Saturday, November 10, from 12:30 p.m. to 2 p.m. Call (412) 422-6538 for information.

Also, on Saturday, November 17, David Jett will present the Art of Wreath-making. Learn to make beautiful wreaths from readily available materials. Class size is limited; register by calling (412) 422-6538.

Field Trip Schedule

Registration is not required. Everyone is welcome, including non-members. For questions, call the trip leader or Loree at (412) 521-9425.

Saturday, October 13, 2001
Allegheny Front Hawk Watch, Somerset County
Time: 11:00 a.m.
Leader: Mary Jane Seipler (724) 325-3571

We will picnic, watch hawks, and take a botanical hike in one day! Bring a covered dish, utensils and a chair.

Dress in layers, and most importantly, dress warm as the temperature can be much lower, and the wind fiercer, on the mountaintop. Wear your hiking boots. The Allegheny Front is awesome; expect interesting mountain flora in fall stages.

Directions: Take Pennsylvania Turnpike east to Somerset, Exit 10, Mile Marker 110, about 50 miles from Pittsburgh. In Somerset go 0.6 mile from the exit to a sign that reads 281/ to 219N. Turn left onto Route 281. Go 2.1 miles to the junction of Route 219. Take Route 219 North 8.3 miles to the Jennerstown/Route 30 exit. Exit onto Route 30 East. Drive 12.2 miles to Reel's Corner, Route 160. Turn left onto Route 160 North. Continue north 4.1 miles into Central City.

In Central City, Route 160 turns left. At this point continue straight; this is Lambert Road. Go straight 0.5 mile to its T-intersection with Shaffer Mt. Rd (straight ahead) and Main Street (on your left). Go straight on Shaffer Mt. Rd (SR1018) for 0.9 mile, hang a right at Lambert Mt. Rd. (SR 1035), go 2.8 miles through State Game Lands 228 until Lambert Mt. Rd. turns sharp left and becomes Fleegle Rd. At this point, go straight instead of turning left onto Fleegle, pass the little cemetery on your right for 0.5 mile. Turn right at the blue gate and go 0.2 mile to the parking lot for the Hawk Watch.

Please park so the road is open and none of the foliage is damaged. You may wish to park on the road and walk in.

Saturday, October 27, 2001
Kidd's Mill in Eldersville, Washington Cty
Time: 1:00 p.m.
Leader: Carl Patsche (304) 723-0139

We will travel to the Gump Farm, Hollow Rock Run, and, if time permits, the Meadowcroft Rock shelter.

Directions: From Pittsburgh, travel west on I-279 Parkway West. Exit this highway to continue on Rte. 22 West. Exit Rte. 22 at the Star Lake-Burgettstown exit near Florence. Continue 4.5 miles south on Route 18 to the third traffic light in Burgettstown. Turn right onto Langeloth Road. Continue 6 miles to the small village of Eldersville. We will meet at Heritage Hall on the right side at the crossroads.

Botanical Society of Western Pennsylvania – October and November 2001

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Editor: Loree Speedy, 5837 Nicholson St., Pittsburgh, PA 15217 Telephone: (412) 521-9425; E-mail: yoree@sgi.net.
President: Dr. Mary Joy Haywood, (412) 578-6175, E-mail mjhaywood@carlow.edu; **Vice-President:** Phyllis Monk, (412) 831-2724 E-mail: uscmonk@bellatlantic.net; **Treasurer:** Walt Gardill (412) 364-5308

WILDFLOWERS is published monthly by the Botanical Society of Western Pennsylvania. We welcome short articles of botanical interest, drawings, and notices of botanical events and group activities. Send to the editor at the above address. Deadline for submissions is the 23th of the previous month.

The Botanical Society of Western Pennsylvania - Membership Information

The Botanical Society was founded in 1886. The object of the Society shall be to bring together those who are interested in Botany and to encourage the study of this science and a knowledge of plants. Annual dues are \$10.00 for individual and \$15.00 for family. Students can join at half-rate. To join, mail your name, your address, and check payable to "Botanical Soc. of W PA" to Loree Speedy, 5837 Nicholson Street, Pittsburgh, PA 15217. Your membership includes a subscription to the monthly bulletin WILDFLOWERS.

The Society meets the second Monday of each month, September through June, at 8 p.m. sharp, at Kresge Theater, Carlow College, 3333 Fifth Avenue, Oakland. All are welcome to the informative program and business meeting.

Wildflowers of Pennsylvania – Ordering Information – 400 pages of text and 612 color photographs

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