



THE BULLETIN OF THE

Botanical Society of Western Pennsylvania

If the weather is inclement, a BSWP meeting will cancel if Carlow University cancels classes. To learn if that has happened, call the Carlow Weather Line at 412-578-6677.

November Meeting

Joe Isaac will speak to us on November 9 on two subjects: *A Myopic View of Pennsylvania's Rare Plant Program* and *More of Greene and Washington County Greenery*.

Joe will present a summary of Pennsylvania's Rare Plant Program and how it is supposed to work, including regulatory and legal issues, strengths and weaknesses, as seen by a botanical consultant.

Joe will also share more Greene and Washington County species records, and interesting species encountered in an atypical day's work.

Having earned both a BS and MS in Biological Sciences from Youngstown State University, Joe has worked as an urban forester for a local tree service, a technician for the herbariums at Youngstown State University and Carnegie Museum of Natural History, Limited Service Faculty (YSU), and as a self-employed field botanist/consultant. He has also worked as a subcontractor and field botanist for the Western Pennsylvania Conservancy and CMNH (Sections of Botany and Amphibians & Reptiles). Major areas of field work include Bedford, Crawford, Elk, Erie, Greene, McKean, and Washington Counties in Pennsylvania.

Continued on back cover

Meetings are held on Mondays at 7:15 p.m. at Kresge Theater (**except for December— see above**), Carlow University, 3333 Fifth Avenue, Pittsburgh, PA (Oakland). Kresge Theater is

Holiday Party!

Our annual party will take place on the third Thursday of December — not the second Monday.

The Holiday Party will be held Thursday, December 17, 7:15 p.m., at the A. J. Palumbo Hall of Science and Technology at Carlow College, 3333 Fifth Avenue, Pittsburgh, PA (Oakland). As you approach the campus on Fifth Avenue (heading toward downtown), do not turn right into the Carlow Campus entrance. Instead, pass the entrance, stay in the right lane, and make the immediate right into the parking area. Park here and cross the street. Place a note on your dashboard saying "Botanical Society Meeting," or use your parking permit.

For the Wild Foods Holiday Party, members and guests bring an assortment of foods made from something found in the wild. Appetizers, cookies, candies, fruits, and berries — a challenge for the most daring and creative. Join us with or without a wild offering.

We will also have Member's Night during the party. After enjoying wild foods, we'll share our botanical sightings over the year. A member can bring up to 12 slides or digital photos. A slide projector and a digital video projector will be available.

on the top floor of the Grace Library and is accessed from the upper campus. Place a note on your dashboard saying "Botanical Society Meeting," or use your parking permit.

wildflowers

NOVEMBER
DECEMBER
2009

Wildflowers, Bulletin of the Botanical Society of Western Pennsylvania, is published bimonthly 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 address below. Deadline for submissions is the 16th of the previous month. *Wildflowers* is printed on recycled paper.



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The Society meets the second Monday of each month, September through June, at 7:15 p.m. sharp, at Kresge Theater, Carlow University, 3333 Fifth Avenue, Oakland. All are welcome to the informative program and business meeting.

MEMBERSHIP INFORMATION

Annual dues are \$10 for individual and \$15 for family. Students can join at half-rate. To join, mail your name, your address, and check payable to "Botanical Society of W PA" to Judy Boyer, 211 Lee Avenue, Pittsburgh, PA 15237. Your membership includes a subscription to the bimonthly bulletin *Wildflowers*.



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.

December Field Trip

Registration for Botanical Society field trips is not required. Everyone is welcome, including non-members. Wear shoes that can get wet or muddy. Trips last 3 – 4 hours but one can leave at any time. For questions call the field trip leader, or Loree Speedy at 724-872-5232.

Sunday, December 6, 1 p.m.

Winter Tree and Weed ID at Potter's Corner Murrysville, Westmoreland County

Leader: Tom Pearson; 724-864-1902

Directions: From Pittsburgh, take I-376 east until it joins US 22 east. Heading east through Murrysville on US 22, make a left onto Vincent Hall Rd. at a traffic light and a McDonalds. Continue straight ahead through the next traffic light onto Sardis Rd. and drive at least 2.5 miles. When you see the municipal building on your left, look for a bridge and school on your right. Turn right over the bridge and meet in the Sloan Elementary School parking lot.

GET WELL SOON ...

Get well wishes are extended to Werner Emmerich, who is recovering from heart surgery. We look forward to seeing Werner and Eva again.

Esther Allen is happily recuperating at home after a long illness this summer. She is enjoying her backyard garden on beautiful fall days, and might admit to the use of a shovel for physical therapy!

In Memoriam

Our sympathy goes out to member James Nusser for the loss of his dear partner and our friend Floyd Patterson in July 2009.

We remember dear member Anne Fonas who died on September 22, 2009. Anne, from Forest Hills, was a member of the Botanical Society for 19 years.

Enjoy Your Wildflowers

AMERICAN BITTERSWEET *By Anne S. Bahl*

American bittersweet is one of Pennsylvania's native shrubs that vines. It adds color to the state's moist woodlands and roadsides in autumn — not with its leaves, but with its seeds. In May it has inconspicuous clusters of greenish-white flowers at the ends of branches. Look for the plants at bloom time. Have a magnifying glass to examine the reproductive structures of the flowers. Some have only stamens (male), some only pistils (female), and some have both. They are scattered haphazardly on the plants. Bees are the usual pollinators.

By October, fruits have developed. Each fruit has an orange-yellow cover that opens and displays three to six pulpy, shining, bright-red seeds. They appear to be in a three-part saucer that is resting on the five sepals of the calyx. They are firmly attached, enabling them to persist through the winter. As tempting as they are, they are not edible; enjoy them visually.

The plant can grow to 60 feet, with branches, in the process of searching for something to climb or entwine, such as other shrubs, tree branches, field fences and broken walls. The leaves are 4" long with $\frac{3}{4}$ " petioles, smooth on both sides, but with somewhat uneven margins. They alternate on the stem.

When approaching A. bittersweet, be careful. Poison ivy grows in similar environments. Avoid any contact with it. All parts of it are poisonous, and the poison remains active, even on pets, objects, and dead plants, for more than year, even in winter. If any contact should be made, applying laundry soap, not oily soap, may help temporarily. Another plant to avoid is trailing bittersweet, a poisonous plant in the potato family. It, too, has bright, red fruit. It prefers more moisture in bogs, open woods, thickets and waste ground.

A. bittersweet's botanical name is *Celastrus scandens* — Greek, *kelastra*, an evergreen tree or shrub, and Latin, *scando*, to climb up. The family botanical name is *Celastraceae*; its common name is staff tree. The family, although comparatively small, is worldwide in tropical, sub-tropical, and warmer temperate climates. Oriental bittersweet, imported for horticultural use, is spreading rapidly in the state's southern counties.

Some of the products obtained from the plants in the staff tree family are: Arabian tea, honey wine, seed oil and oil for soap, yellow butter dye, medicines, ornamental and horticultural items, and wood for printing blocks and turnery.

WPC RESEARCHERS DISCOVER NEW PENNSYLVANIA PLANT

Dwarf Scouring Rush Found on Rare Wetland at Mercyhurst College Property

Western Pennsylvania Conservancy (WPC) scientists have discovered a plant in Erie County that has never been recorded in Pennsylvania. The plant, dwarf scouring rush, was identified with the aid of a Mercyhurst College professor on the college's Mercyhurst West property in Girard.

Dwarf scouring rush is known to exist in the northern U.S. and in Canada, but the plant had not been identified in Pennsylvania until this discovery. WPC scientists found a small population of this low, wiry plant within a fen, a rare type of wetland, on the college property.

Specimens will be stored at the Carnegie Museum of Natural History in Pittsburgh, PA, the Tom Ridge Environmental Center at Presque Isle, PA, and the Cleveland Museum of Natural History.

"This discovery of the dwarf scouring rush in Pennsylvania demonstrates that our natural areas still can yield surprises, even in the twenty-first century," said Shaun Fenlon, WPC's vice president of conservation programs.

WPC Ecologists Christopher Tracey and Peter Woods identified the dwarf scouring rush after being led to the site by Mercyhurst Professor of Biology John J. Michael Campbell. Tracey and Woods were conducting field research for the Erie County Natural Heritage Inventory, an extensive catalogue of plants, animals and ecosystems, when they made the discovery.

Members of the Horsetail family, scouring rushes are so named because the high silica content of these plants once made them useful for scrubbing pots. As "fern allies," they are closely related to the ancient fern family and reproduces through spores. The scientific name of the dwarf scouring rush is *Equisetum scirpoides*.

Oaks, Acorns and Acorn-eaters

and the lesser of two weevils

by Chuck Tague

By mid-October, the maple, ash and hickory leaves have faded and are falling but the oaks still hold their foliage. This is an excellent time to observe the many species of oaks.

Ten species of native oak trees grow in western Pennsylvania plus two species of oak shrubs. All of these are deciduous, which means they drop most of their leaves each fall. In the southern states several species of “live oaks” remain green all winter.

One interesting thing about our oaks is that there are two distinct groups, the red oaks and the white oaks. Although all oaks are in the genus *Quercus*, the two groups each make up a subgenus. The red oak subgenus is called *Erythrabalanus*; the white oak is *Lepidobalanus*.

There are several significant differences between red oaks and white oaks. On all the red oaks’ leaves, the leaf veins project beyond the leaf’s margin, creating a bristle. On the white oak leaves veins end at the edge and the leaf’s margin is smooth.

The two types of acorns are also different. The red oak acorns develop in two years while those of the white oaks mature in one season. If you look at a red oak twig in autumn you may see mature acorns as well as miniature ones. Mature red oak acorns sprout in the spring. White oak acorns germinate in the fall, shortly after they drop. During the red oak acorn’s extended development, tannin accumulates. This not only preserves the acorn, but it gives it a bitter taste and makes it less appealing to squirrels. Acorns from a white oak are sweeter but do not keep very well. Once they sprout they lose much of their food value.

There is also a fuzzy lining between the inside wall and the meat in red oak acorns that is absent in white oak fruit.

Species of white oaks grow all over the northern hemisphere but the range of the red oaks is restricted to North America.

Acorns are one of the most important sources of winter food for many species of western Pennsylvania wildlife. Chipmunks stash them in their burrows and feed on them during the cold months. Squirrels cache acorns, deer scratch for them and bears fatten up on them. Blue jays depend on acorns and migrating Wood ducks feast on the acorns of pin oaks that grow in wetlands. The muscular gizzard of the wild turkey can grind whole large nuts and common grackles have a ridge on their pallets that helps them crack open the shells.



*Pin oak acorn
with weevil hole*

Western Pennsylvania Oaks

White Oaks

White Oak *Quercus alba*

Swamp White Oak *Quercus bicolor*

Yellow Oak *Quercus muhlenbergii*

Bur Oak *Quercus macrocarpa*

Chestnut Oak *Quercus montana*

Dwarf Chestnut Oak *Quercus prinoides*
(Shrub)

Red Oaks

Northern Red Oak *Quercus rubra*

Scarlet Oak *Quercus coccinea*

Shingle Oak *Quercus imbricaria*

Pin Oak *Quercus palustris*

Black Oak *Quercus velutina*

Scrub Oak *Quercus ilicifolia*
(Shrub)



Bur Oak

These large critters are not the only animals that feed on acorns. Over one hundred species of insects eat the nuts in the eastern deciduous forest. Many of these specialize on oaks. One group that is easy to observe is the acorn weevil, in two genera: *Curculio*, long-snouted acorn weevils and *Conotrachelia* the short-snouted ones. *Conotrachelids* are the lesser of two weevils.

The adult female of the long-snouted weevils lays eggs in developing acorns. These hatch within a few days and a leg-less grub-like larva goes through five instars inside the acorn. After the acorn falls they drill out of the shell and burrow into the ground. This strategy enables the grubs to escape hungry squirrels.

Look for small round holes in acorns. Also, the infested acorns are softer and lighter than those that don't host weevils. Bounce an acorn off a hard surface. If it bounces it probably is weevil-free; if not, check inside for a chubby white maggot. You can also put a handful of acorns in a bucket of water. Those that have or once held a weevil larva will float. The others will sink.

Put some of the suspect acorns in a glass jar and bring it into a warm place. Unless the weevil larvae have already left, you will see



Scarlet Oak

them crawling around the bottom in few days. Look for sawdust.

Put the larvae back under the tree or in a gallon jug of potting soil. In several months, if you keep the soil moist, the adults will emerge. Watch the squirrels under an oak tree. Put a pile of red oak and a pile of white oak acorns under a tree. Which type do the squirrels prefer? Which do they eat right away? Which do they store? Carefully cut open one of each. Do you notice a difference in structure?

Put some red oak and the white oak acorns in separate plastic bags. Sprout the acorns by sprinkling them with water and then sealing them in the bag. Keep the bag on a sunny windowsill until the acorns germinate. Note the difference in sprouting times.

You can then plant them in flowerpots and observe the growth rate.

Yes, please renew/initiate my/our annual BSWP membership!

Name(s) _____

Street Address _____

City, State, Zip _____

E-mail Address _____

New member? Yes No OR: New mailing address? Yes No

Your check of \$10/person or \$15/family is payable to the BSWP.

It's that time of the year ...

RENEW YOUR
BSWP MEMBERSHIP AND
NEWSLETTER SUBSCRIPTION
NOW FOR 2010!

Fill out the form, detach with scissors and bring to
the holiday party or mail with your check to:

Judy Boyer, 211 Lee Ave., Pittsburgh, PA 15237

Wildflowers

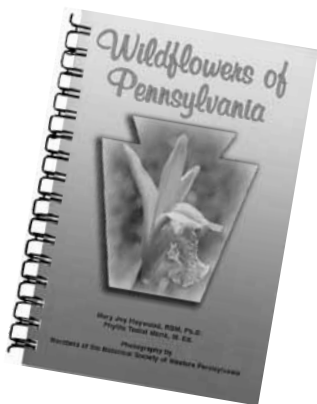
November – December 2009

Botanical Society of Western Pennsylvania

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Great for Gift-giving!

Sweatshirts bearing “Botanical Society of Western Pennsylvania” and green oak leaf art will be available at both the November 9 meeting and at the holiday party for \$20. If you would like to order sweatshirts by mail, contact Bonnie Isaac at 412.622.3253, or e-mail her at isaacb@CarnegieMuseums.org.

Also available at the holiday party:

Wildflowers of Pennsylvania (400 pages, 612 color photos) can be purchased for \$20 (plus \$1.40 sales tax for PA residents). To order by mail, add \$2 postage and handling for one book, \$3/two, \$4/three, \$4.50/four. Forward your check, made payable to Botanical Society of Western PA, and your request to Dr. Mary Joy Haywood, RSM, PhD, 3333 Fifth Ave., Pittsburgh, PA 15213-3165; 412-578-6175; haywoodmj@carlow.edu

HUNT INSTITUTE EXTENDS SHOW THROUGH JUNE 2010

The exhibition *Botanicals: Environmental Expressions in Art, the Alisa and Isaac M. Sutton Collection* represents one of the finest private collections of contemporary botanical art in America. These 54 artworks are expressions of the purely aesthetic forms found in nature and a reminder that we are stewards of our natural resources for future generations.

The exhibition continues to be on display on the 5th floor of the Hunt Library building at Carnegie Mellon University. For show hours and further information, contact the Hunt Institute at 412-268-2434.

Continued from front cover

Currently Joe is employed as a botanical consultant (Project Manager) at Civil & Environmental Consultants Inc. and is a member of the Vascular Plant Technical Committee of the Pennsylvania Biological Survey.

Joe enjoys being an herbarium rat, and also enjoys a variety of outdoor activities, including botanical excursions, hunting, fishing, kayaking and gardening.