
WILDFLOWERS

The Bulletin of the Botanical Society of Western Pennsylvania • October 1999

Next Meeting is October 11

The next meeting will be Monday, October 11, at 8:00 p.m., at the Carlow College, 3333 Fifth Avenue, Pittsburgh, PA (Oakland).

For this month only, we will meet at Carlow's new science building, located next to the campus between Fifth and Forbes Avenues. As you approach the campus on Fifth Avenue (heading toward downtown Pittsburgh), 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 along Fifth Avenue. Park here and cross the street to the new A. J. Palumbo Hall.

President Mary Joy Haywood will give us a **personalized tour** of the A. J. Palumbo Hall of Science and Technology. After the tour of this state of the art teaching and research facility, Dr. Haywood will give a short presentation.

A Fern Reserve

The following article by member Joan Gottlieb was printed in the Hardy Fern Foundation Newsletter in 1992.

The greatest challenge to preserving biodiversity is the conservation of appropriate habitat. For some species, like grizzly bears, square miles of space are required; for others, like the robin, a suburban back yard suffices. Often, it is the quality, rather than the quantity of the space that is paramount. A Venus' Flytrap grows on a mere fist-size piece of land, but the land must be acidic, moist, sandy savannah without severe frost. By contrast, a Walking-Leaf Fern requires

about the same amount of space, but it must be on an alkaline rock such as limestone.

In western Pennsylvania, about a thirty minute drive west of downtown Pittsburgh, lies the Raccoon Creek Wildflower Reserve. It is only 314 acres in size but contains such a variety of habitats that it supports twenty-six species of Pteridophyta (ferns and allied plants). That's more than six percent of the 385+ species known from all of North America. The reserve is also home to over 500 species of flowering plants, some of which are now quite rare in the state (Snow Trillium, Closed Blue Gentian, Lily-leaved Twayblade, Pink Ladyslipper, Dwarf Larkspur and others). The tract was purchased in the early 1960's by the Western Pennsylvania Conservancy and was subsequently transferred to the Department of Environmental Resources.

The Wildflower Reserve has five miles of developed trails which meander through oak-hickory forest, pine and spruce groves, an abandoned field undergoing succession to meadow/prairie, shale rock outcrops and a long stretch of flood plain forest and riparian bottomland along Raccoon Creek. All in all, it is a gem of place, where habitats exist to satisfy some of the most fastidious plants of the area, and where they thrive and can be enjoyed by the casual naturalist or the serious scientist alike.

Most of the reserve's pteridophytes can be seen in one easy stroll starting behind the Visitor Center on the Wagon Trail and then turning left onto the Jennings' Trail which soon parallels the broad creek. The first, and most exciting fern one encounters is the Adder's tongue (*Ophioglossum vulgatum*) which covers a sizable plot of second growth woods. An intermittent seep feeds the area with vital

moisture, and by the end of July the fern fanatic can delight in flicking clouds of pale spores from the Adder's fertile spike (the tongue). This charming and elusive plant is only three to eight inches tall and blends in exquisitely with surrounding grasses and herbs, so is easily overlooked. It is a "prayer bones" find.

Another rare fern in the reserve is Goldie's Fern (*Dryopteris goldiana*). A stand containing several vigorous specimens is found in a trough along the Jennings Trail which fills with runoff water during heavy rains, but then drains fairly quickly. The large fronds (three feet long and twelve inches wide) with their deep blue-green color and sori (spore clusters) near the midvein distinguish this striking wood fern from the related and abundant Marginal Shield Fern (*Dryopteris marginalis*). The latter is easily recognized by its smaller leaves (up to two feet long and ten inches wide) bearing sori along the frond margins. Perhaps in the future a botanist will find the hybrid of these two wood ferns (*Dryopteris x neo-wherryi*) which has sori half way between the midvein and the margin of the leaf. This wonderful hybrid occurs in nearby Ohio.

On steep, sedimentary rock cliffs above Goldie's Fern grows a robust stand of Walking-Leaf Fern (*Camptosorus rhizophyllus*). It is impressively fertile on mid to late summer with distinctly elongated sori scattered over the leaf undersides. Especially eye-catching are its attenuated frond tips which uncoil in the fiddlehead pattern so typical of ferns, but then arch back toward the supporting calcareous rock, nestle into tiny, soil-filled fractures and produce baby plants in famous "walking-leaf" fashion. Thus, this population of hundreds of plants may be a clone of one successful, ancestral spore which colonized the cliff a long time ago.

Festooning the same rock ledges are some magnificent specimens of Maidenhair Spleenwort (*Asplenium trichomanes*). Their leaf rosettes ring the rock crevices in near-perfect circles. Nearby, along the trail, grow many plants of a cousin species – the Ebony Spleenwort (*Asplenium platyneuron*). Perhaps

one day a dedicated pteridomaniac may find the sterile hybrid between these two spleenworts (*Asplenium x virginicum*), and/or the hybrid of the Ebony Spleenwort and the Walking-Leaf Fern known as Scott's Spleenwort (*Asplenosorus x ebenoides*). The latter is generally sterile, but it propagates asexually in the manner of its Walking-Leaf Fern parent.

To be continued next month

Joan Gottlieb

Conference Explores the Relationship Between People and the Land

The Pittsburgh Civic Garden Center presents the "The Natural Landscape" on Saturday, November 6, 1999, from 8:30 a.m. to 4:00 p.m. Neil Diboll of Prairie Nursery will address "Ecology and Gardening" which explores the human relationship with the garden, and why and how people are reconnecting with nature in their own backyards. Professor Daniel Morrison will discuss designed landscapes which reflect and reveal the unique settings inherent in naturally-evolved landscapes.

Participants can attend the following breakout sessions: "Urban Sprawl", "Designing Outdoor Learning Spaces", "Conservation in Pennsylvania", and "Five Steps to Successful Prairie Meadow Establishment".

For more information, call The Pittsburgh Civic Garden Center at (412) 441-4442.

Help Create a Meadow Habitat

The Science on Saturday autumn program at the Rachel Carson Homestead will be "Backyard Habitats, Harvests and Additions". Come on Saturday, October 16 from 1-3 p. m. to learn how to create or continue a special home or "habitat" for creatures great and small during challenging winter months. All ages are welcome.

The November program will be "Wildflower Landscapes". Learn to bring nature's design to your special garden site. Children and adults can plant wildflower seeds, perennials and native plants to create a natural meadow habitat along the new Wild Creatures Nature Trail. This special "hands-on" project meets three times in November (come to one or all sessions): Thursday, November 4 from 10 a.m. to 1 p.m., Wednesday, November 10 from 3-6 p.m., and Saturday, November 20 from 1-3 p.m.

For more information and to pre-register, call Tammy Watychowicz at (724) 733-4618.

Why is it called the Venus' Looking-glass?

Last month, Jeff Polonoli asked "Why do the *Triodanis* species have the common name Venus' Looking-glass"?

Never one to speculate, Esther Allen pored over many volumes, and learned in *Wildflowers of United States – The Southeastern States, Part II*, by Harold William Rickett, that members of the *Triodanis* (also known as *Specularia*) genus, have flat shiny seeds that suggest a mirror.

Mushrooms in an Old Growth Forest

The Botanical Society found these mushrooms at the Heart's Content field trip on August 21, after a soaking rain. Dorothy Fornof shared her excitement and her expert identifications!

Hemlock Varnish Shelf – *Ganoderma tsugae*
Orange Mycena – *Mycena leaiana*
Purple-gilled Laccaria – *Laccaria ochropurpurea*
Violet Toothed Polypore – *Trichaptum bififormis*
Witches' Butter – *Tremella mesenterica*
Viscid Violet Cort – *Cortinaria iodes*
White-egg Bird's Nest – *Crucibulum laeve*
Gem-studded Puffball – *Lycoperdon perlatum*
Sheep's Head – *Grifola frondosa*
Rooted Collybia – *Oudemansiella radicata*

Field Trip Schedule

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

Saturday, October 16, 1999
Beaver Creek State Park, Ohio
Time: 1:00 p.m.
Leader: Carl Patsche
(304) 723-0139

Directions: From Pittsburgh, follow US Route 30 west to the West Virginia state line. Continue west on Route 30 through the town of East Liverpool. About 6 miles from East Liverpool, exit US Route 30 at the State Route 7, Rogers exit. Travel Route 7 north about 2 miles to the entrance to Beaver Creek State Park on the right. Continue to the parking lot at the park office, where we will meet.

Expect fall wildflowers and foliage along the canal locks leading to the National Scenic River.

Saturday, October 23, 1999
Frick Park, Pittsburgh
Time: 1:00 p.m.
Leader: Dr. David Jett

Directions: From Pittsburgh, take the Parkway East (US 22-30) to the Edgewood/Swissvale Exit. On the ramp, take the left fork to Edgewood (ignore directions to Edgewood Towne Center). Turn right onto South Braddock Avenue, and continue about 1 mile to the stoplight at the intersection of Forbes Avenue. Turn left onto Forbes Avenue. At the next stoplight, turn left onto S. Dallas, then a quick left onto Beechwood Boulevard. Travel up the hill and turn left into Frick Environmental Center, where we will meet.

We will view a short video about Pittsburgh's oldest and wildest city park, then take a walk through the grounds.

Botanical Society of Western Pennsylvania – October 1999
5837 Nicholson Street
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WILDFLOWERS - Bulletin of the Botanical Society of Western Pennsylvania

Editor: Loree Speedy, 5837 Nicholson Street, Pittsburgh, PA 15217 Telephone: (412) 521-9425;
E-mail: <yoree@sgi.net>.

President: Dr. Mary Joy Haywood (412) 578-6175; Vice-President: Phyllis Monk (412) 831-2724

WILDFLOWERS is published monthly by the Botanical Society of Western Pennsylvania. We welcome short articles of botanical interest, drawings, letters to the editor, and notices of botanical events and group activities. Send to the editor at the above address. Deadline for submissions is the 20th of the previous month.

The Botanical Society of Western Pennsylvania - Membership Information

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. Our members include both amateurs and professionals. 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 Trinity Hall or Kresge Theater, Carlow College, 3333 Fifth Avenue, Oakland. All are welcome. An informative program follows the business meeting. Visit the Botanical Society Homepage at <http://home.kiski.net/~speedy/b1.html>.