# WILDFLOWERS

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

# Next Meeting is May 10

The next meeting will be Monday, May 10, at 8:00 p.m., at the Kresge Theater at Carlow College, 3333 Fifth Avenue, Pittsburgh, PA (Oakland). Kresge Theater is on the top floor of Grace Library.

Member John Totten will present "Is There a Place for Pennsylvania Plants in your Landscape?" John is a professional gardener with a Master's degree from the School of Natural Resources at the University of Michigan and coordinator of the new Audubon Center for Native Plants. His talk will focus on some of the historical and horticultural aspects of our region's flora. He will discuss some of his favorite natives, as well as some of our most overlooked plants.

Listen to Scott Shalaway's nature talk show on May 14th from 4 to 6 p.m. A special member will be on-air to discuss the Botanical Society of Western Pennsylvania. Scott's radio show, Birds and Nature, airs in Pittsburgh on WORD-FM 101.5.

## Monocot Evolution

Before describing another plant family, we must recognize two major taxonomic ranks among angiosperms. Angiosperms or 'flowering plants' alone are difficult to comprehend, yet early in evolution a major 'split' divided them into two classes; Liliopsida (monocots) and Magnoliopsida (dicots). Most botanists today agree monocots were derived from some 'dicotlike' ancestor, yet a common theory on 'when', 'how', and 'from what specific plant' they evolved is far from being accepted. Vague

evidence about their origin results from lack of fossils formed around that time.

The term 'paleoherbs' is given to a group of herbaceous dicot families thought to be descendents of the ancestral 'monocot-dicot' plant, mainly because they have certain characteristics common in monocots but rare in dicots. These paleoherb families include the Piperaceae, Nymphaeaceae, and Aristolochiaceae.

Monocots are distinguished from dicots mainly by the presence of a single cotyledon or 'seed leaf', responsible for the class's name.

Monocots have a 'scattered' arrangement of vascular bundles throughout their stem with no clear distinction between pith and cortex. In contrast, dicots have vascular bundles arranged in a 'ring' with distinctive pith and cortex.

Lacking this ring arrangement, monocots cannot develop a vascular cambium, a structure common in dicots allowing secondary growth or 'true wood' formation.

More visible characteristics of monocots include their regular 3-merous or 6-merous flowers. Some monocots not having regular flowers in our region include all Orchidaceae members. The typical monocot usually has parallel-veined leaves that are characterized by many primary veins running parallel with the leaf margins. Monocot leaves are usually alternate and simple with entire margins. Exceptions of monocots without parallel venation are the Trillium species and Greenbriers (Smilax sp.), each having 'reticulate' veined leafs.

Identifying characteristics of monocots are very easy to recognize, yet there are always exceptions when dealing with plants. The aquatic water lily (Nymphaea sp.) is a

'paleoherb' plant having one cotyledon and scattered vascular bundles, yet water lilies are classified as dicots.

The monocot characteristics described here are all good field identifiers for the class, yet more technical features such as phloem plastid protein shape (triangular in monocots) and pollen surface features (one furrow in monocots) are used as final determinations in systematic botany. More than one monocot characteristic should be present when deciding what class a plant belongs.

Noteworthy monocots include the Orchidaceae, our most 'advanced' plant family, and many important economical crops such as corn and wheat. Our largest genus in Pennsylvania is Carex, a monocot we will be describing next month.

The monocots in our area are all herbs, yet in the tropics palms are a common monocot of 'tree' stature. But how can palms grow like a tree if monocots don't produce true wood to support themselves?

Jeff Polonoli

### **Notes**

- David Jett, of Frick Park Nature Reserve, is asking if members have any information on the old nature museum, or any biographical information on William Leroy Black, the first naturalist for Frick Park. Call David at 422-6538.
- The Butler Outdoor Club is sponsoring their 3rd Annual Outdoor Extravaganza on May 28 through May 31, 1999, taking place at Rose Point Campground bordering Moraine and McConnell's Mills State Parks. Hike, bike, canoe, kayak during the day; pig roasts, hay rides, nature presentations at night. Information: (724) 526-5407. The organizer, Joyce Appel, is looking for someone to lead a wildflower hike during the weekend, anywhere in the vicinity of the state parks. If you can lead a short

wildflower hike, call Joyce at (724) 526-5407, e-mail apple@penn.com.

 Our best to members Eva Emmerich and Barbara Balbot, who are recovering from surgeries. We will miss them this summer out in the field, and look forward to their recovery.

# Field Trip Schedule

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

Saturday, May 8, 1999 Wolf Creek Narrows, Leader: Howard McIlvried

Time: 1:00 p.m.

Directions: From Pgh, take I-79 north to Slippery Rock Exit (the first exit past Route 422 exit). Turn left onto Route 108 toward Slippery Rock. Go about one mile and turn left at intersection that has a Dairy Queen on the right. Continue to first paved road on right. Turn right. Go past a dairy farm on the left to a T intersection. Turn right and park in lot on right just before a bridge over Slippery Rock Creek.

Saturday, May 15, 1999 Oil Creek State Park, Leader: Lee Ann Reiners (814) 398-8571 reiners@toolcity.net

Time: 1:00 p.m.

Directions: Take I-79 north and I-80 east to Barkeyville Exit 3. Follow Rte. 8 north to Titusville. At the traffic light just before the Oil Creek bridge, turn right toward Drake Well Museum. Go a mile or so to the Bicycle Trail parking lot on the right, before the other bridge over Oil Creek. Meet at the parking lot.

Expectations: Wildflowers love bike trails. This is a joint trip with the Presque Isle Audubon Society. An **optional bicycle ride is scheduled for 10 a.m.,** same meeting place. Bring a picnic lunch if you come for the bike ride.

Sunday May 23, 1999Butler-Freeport Trail Leader: Esther Allen (412) 366-0786

Time: 1:00 p.m.

Directions: From Pittsburgh, take Rte 8 North, then take Rte. 228 east. Turn left onto Rte. 356. Or, from Rte. 28 north, take Rte 356 west. After roughly 3 miles, you meet Rte. 228 on the left. Where Rte. 228 and Rte 356 meet, travel a short distance and turn right on Sarver Road (SR2018). Go down the hill and along the creek for 0.8 mile. Just after crossing the creek and passing a volunteer fire department, turn left into a parking area, where we will meet.

Saturday May 29, 1999Lee's Cabin on Stony Creek Lake, Somerset County Leader: Lee Tosh (412) 833-2620

Time: 1:00 p.m.

Directions: From Pittsburgh, take the Turnpike east to the Somerset Exit. Follow Rte. 31 east about three miles to a Y where you will bear left to Shanksville. At the first stop sign in Shanksville, make a left. As soon as you cross the bridge over Stony Creek, make a right. After you pass Shanksville High School on your left, proceed about 100 yards and turn left onto Lake Shore Road. Proceed downhill past the dam. Proceed about another 1/2 mile to Lee's cabin, which will be well-marked.

Note: Members on the way to Somerset can stop (before 11 a.m.) at the cabin of member Rose Mary Drescher to see if the Lady's Slippers are blooming at the top of Laurel Mountain. Exit turnpike at Donegal and turn right onto Rte. 31. Go 4 miles west to the top of the mountain ("three-mile hill"). Turn right onto Mt. Circle Road (dirt road). Turn right and go about 1/4 mile. Go around a bend; Rose Mary's cabin is on the right.

Saturday June 5, 1999Titus Bog, Erie County Leader: Sam Stull (814) 476-1795 Time: 9 a.m. Please pre-register for this trip by calling or e-mailing <jst3415@aol.com> leader Sam Stull.

The trip requires wading through the bog's moat, for a short period, perhaps in water up to 2 foot deep, using shrubs and roots for balance. Old tennis shoes or waders are recommended.

Directions: From Pittsburgh, take I-79 north to Rt. 6N (Exit 38, Edinboro). Head east on 6N through Union City. Take Rte. 8 north about 7 or 8 miles to its intersection with Rt. 89, where we will meet.

#### The PNPS is Back

This spring, the Pennsylvania Native Plant Society has resurfaced. The organization has formed a steering committee which has scheduled field trips and published a newsletter.

PNPS is a general membership native plant organization, with headquarters in State College, Pennsylvania. A southeastern chapter with headquarters at Bowman's Hill Wildflower Preserve has recently formed.

For information on joining PNPS, or serving on the steering committee, send your name and address to PNPS, PO Box 281, State College, PA 16804-0281.

#### Native Wildflower Sale

The Audubon Center for Native Plants will be selling local nursery-propagated plants, on Saturday, May 1, May 8, and May 15 from 9:00 a.m. to 12 noon. Priced at \$4.00, these plants will enhance your landscape and help in their efforts to reestablish many of these native species in our region.

Sales will be held at Beechwood Farms Nature Reserve, 614 Dorseyville Road, Pittsburgh, PA 15238. For information, call (412) 963-6100.

Botanical Society of Western Pennsylvania – May 99 5837 Nicholson Street Pittsburgh, PA 15217

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## WILDFLOWERS - Bulletin of the Botanical Society of Western Pennsylvania

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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. Articles, notices, drawings, etc. should be sent to the editor at the above address. Deadline for submissions is the 17th 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 PM 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.