WILDFLOWERS

The Bulletin of the Botanical Society of Western Pennsylvania • February 2000

Next Meeting is February 14th

The next meeting will be Monday, February 14, 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.

In a program entitled "The Eye of the Beholder: The Hidden Beauty of Nine Mile Run", nature enthusiast and photographer Clifton McGill will explore Frick Park's Nine Mile Run through slides and historic, anecdotal information. His views will sharply contrast the distressed condition of the stream with the beauty of the flora and fauna that is still to be found on its banks and in the surrounding woodlands.

Also, on a more philosophic level, the "language" of flowers will be explored along with issues of aesthetic appreciation and the factors that compel us to be drawn to the beauty of the natural world.

Even if you've been to Nine Mile Run in recent years, this evening promises to be an entertaining and eye-opening experience.

The Botanical Society will visit the Bruce Peninsula

Are you interested in visiting the Bruce Peninsula in Ontario, Canada from June 17th through June 24th?

Members of the Botanical Society plan to visit this nature-lover's retreat. The Bruce is a limestone peninsula between serene Lake Huron and wild blue Georgian Bay, and it guarantees many interesting wildflowers, birds, and beautiful natural areas.

This is not a guided tour with appointed leaders, but a gathering of folks who like to explore the natural world of plants, animals, birds and geographic wonders. The expertise will come from within.

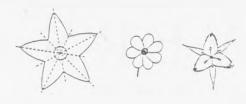
Call George Bercik for information if you are interested in joining this wonderful trip. We will stay at the Red Bay Lodge in rustic cabins or hotel rooms. George has offered to make reservations at Red Bay Lodge for anyone interested. His number is (412) 655-4701.

Back to Basics - Reproductive Terminology

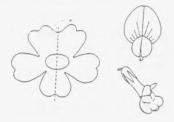
Continued from last month. The next step towards plant identification (and celebrating Valentine's Day) is learning the reproductive parts of plants.

[The plant describe in last month's article was Ground Ivy, or Gill-Over-The-Ground (Glechoma hederacea)]

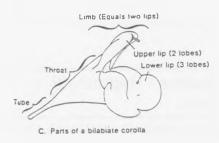
When describing reproductive plant parts, we view the over-all flower and decide whether it is regular (radial or actinomorphic), or irregular (bilateral or zygomorphic). Regular shaped flowers such as Spring Beauty (Claytonia) and Asters have petals of equal size, so an imaginary line drawn at any plane across the flower will yield two mirror images, while an irregular flower like Monkey Flower (Mimulus) will not. An irregular flower, like any in the Mint Family, is called bilabiate because it appears to be made up of 'two lips' when viewed from the side.



Regular



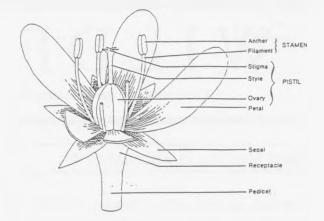
Irregular



Bilabiate

All flowers are made up of a series of parts called whorls. Each whorl has a specific name and is arranged in a specific order. Each whorl develops from the receptacle, which is the enlarged or swollen base of a flower. The first whorl (starting from the outside in) is termed the calyx, and its individual parts are called sepals. The next whorl is the corolla and its parts are called petals.

The next two whorls contain the reproductive cells that produce pollen (sperm) and eggs. The third whorl is called the **androecium** and its parts are called **stamens**. The innermost whorl, when present, is called the **gynoecium**. It is made up of individual parts called **pistils and carpels**.



Flower Whorls

Jeff Polonoli

25 Field Trips in 1999

Thanks to all who led and to all who learned.

Esther Allen – Moraine State Park (2/13/99) Enlow Forks (5/2/99)

Butler-Freeport Trail (5/23/99)

Friendship Hill National Historic Site (6/12/99)

Raccoon Creek Wildflower Reserve (6/26/99)

Lou Ammon – Presque Isle State Park (6/19/99)

Mark Bowers – Herminie (3/27/99)

Roaring Run in Armstrong County (4/24/99)

Markle's Farm (7/24/99)

Joan Gottlieb - Raccoon Creek Wildflower Res(8/28/99)

David Jett- Frick Park (10/23/99)

Howard McIlvried -Wolf Creek Narrows (5/08/99)

Kathy Murphy—Seldom Seen Greenway (11/13/99)

Carl Patsche – Kidds Mill in Eldersville (4/17/99)

Tomlinson Run State Park (8/14/99)

Beaver Creek State Park (10/16/99)

Jeff Polonoli— Pleasant Hills Arboretum

(5/1/99, 7/10/99, 9/18/99)

Lee Ann Reiners – Oil Creek State Park (5/15/99)

Ernst Bike Trail (7/19/99)

Sam Stull— Titus Bog (6/5/99)

Lee Tosh - Stony Creek Lake (5/29/99)

Tammy Watychowicz—Boyce Park (6/20/99)

Gordon Whitney— Heart's Content (8/21/99)

"For years the names of things did not matter to me. The fact that I could not name any of the plants and animals around me took nothing away from what it meant to simply be there. It never occurred to me to look things up in field guides. But over time, the knowing of names made me more keenly aware of the distinct living things that had been given these names, with their unique forms and functions, their individual natures, their places within the whole. There is great value in learning a name, though it is but one aspect of learning the identity. As my life goes on, I work to expand this knowledge, but I will never know the names of all things, let alone be able to read the complete signatures of all things."

From "Swampwalker's Journal" by David M. Carroll. Houghton Mifflin Company 1999.

Eating Seeds Shifts Ant Sex Ratios

Researchers have new details on why ants plant flowers.

Ants play a major orle in dispersing seed s of such woodland delights as trilliums, violets, spring beauties, bloodroot and hepatica. The seeds release a chemical that interests ants, who will lug home even lumps of Teflon coated with the attractant. The ants pull nutritious outer tidbits off the seeds and throw away, that is, plant- the part with the embryo. A nutrient-rich ant garbage pile offers a great place for a plant to start new roots. Seeds collected by ants also escape the sharp teeth of foraging mice.

This ant-plant tale is an old standby in discussions of mutualisms, relationships that confer reproductive advantages on both partners. Nonetheless, the story troubled E. Raymond Heithaus of Kenyon College. Studies had documented the benefits to plants but not the benefits to ants, he says.

To see whether the alleged mutualism was just a trick on the ants, Heithaus and Manuel A.

Morales compared 24 ant colonies satiated with bloodroot seeds to 27 colonies deprived of seeds. The researchers report that the seed-fed colonies did not grow unusually big, but hey did have 3.5 times as many reproductive females, a clear benefit for producing offspring in later generations.

Susan Milius - Reprinted with permission from Science Service, the weekly newsmagazine of Science News, copyright 1998. Suggested by member Gail Blakeley

Field Trip Schedule

Registration is not required. Everyone is welcome, including non-members.

Saturday, February 26, 2000 Arboretum of the National Aviary in Northside of Pittsburgh Time: 1:00 p.m.

Leader: Loree Speedy (412) 521-9425

Directions: From the East and Airport – Cross the Fort Duquesne Bridge. Take the Three Rivers Stadium exit on the left. At stoplight, turn right onto Allegheny Ave. At second stoplight, turn right onto Western Ave. At third stoplight, turn left onto Arch St.

From South, take Rt. 51 toward West End. Cross West End Bridge. Remain in right lane and follow signs for Western Ave. Proceed through 4 traffic lights on Western Ave. At the fifth light, turn left onto Arch St.

From North, take I-279 to Pittsburgh. Take East St. exit to North Ave. Turn right onto North Ave. At fifth light, turn left onto Arch St.

Park on the street near the Aviary, unless you plan to visit the Aviary before or after the walk. We will meet in front of the Aviary.

This trip could be cancelled due to bad driving conditions or unpleasant walking conditions.

Call (412) 521-9425 the morning of the hike for a cancellation message.

Botanical Society of Western Pennsylvania – February 2000 5837 Nicholson Street Pittsburgh, PA 15217

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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. 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.