
WILDFLOWERS

The Bulletin of the Botanical Society of Western Pennsylvania • December 1998

Next Meeting is December 14 and is a Holiday Party

The next meeting will be Monday, December 14, at 8:00 p.m., at the Aquinas Hall, Room 206, at Carlow College, 3333 Fifth Avenue, Pittsburgh, PA (Oakland). See inside for detailed directions to the meeting.

This is our annual Holiday Party featuring wild foods, good foods, good slides, good people!

Members and guests can bring up to twelve botanical slides to share. Bring a holiday treat made with something from the wild! (Even if it be from the supermarket jungle). And don't stay away if you've nothing but your seat to share.

Joyful Holidays to all our members!

Remit Your 1999 Membership Dues

Annual dues for the Botanical Society are **\$10.00** for an individual, and **\$15.00** for a family. Students can join at half-rate.

Bring your dues to the meeting, or mail your name, your address, your phone number (optional) and a check payable to "Botanical Society of W PA".

Mail your check to our Treasurer:

Walter Gardill
PO Box 226, Grosick Rd
Ingomar, PA 15127

Plant Families are useful for plant identification

We all can recognize many flowering plants here in western Pennsylvania and most of us can even recall what family some plants belong to, yet can we state "why" a certain plant fits within its family? Being able to rattle off common and scientific names of plants does suggest a familiarization yet doesn't always mean one really "understands" the plant.

When faced with identifying an unknown plant, knowing family descriptions can surely lead a person in the right direction and even narrow the possibilities of finding the correct plant name.

Taxonomists through history have developed a system of classification to help make sense and organize the three hundred thousand or so flowering plants. The main plant organ this classification is based on is the flower. Taxonomists have chosen the flower because it is the one plant part with the slowest or least degree of morphological variance over time, whereas the vegetative parts (root, shoot, and leaves) can change drastically under short periods of environmental stress.

Paleobotanists view the flower advanced or primitive by the degree of fusion and number of flower parts. The fossil history of flowering plants shows us that the first flowers contained numerous, simple floral parts and as evolution and natural selection proceeded the flowers started developing a reduction and fusion of these parts. To give one a better understanding of a primitive flower one might imagine the regular shaped flower of the magnolia. This flower is the "example" for showing primitive floral characteristics with its elongated

receptacle, numerous free tepals, numerous free spirally arranged stamens, and numerous spirally arranged superior simple pistils.

For one to better understand an advanced flower, envisioning the irregular shaped orchid flower can help. The orchid flower shows its advancement by first having the outer floral whorls (calyx and corolla) highly modified as to attract only one specific pollinator. Second, we see a single stamen, along with the stigma and style of the inferior ovary, highly fused and forming a new organ, which is also adapted to accommodate a specific pollinator.

In upcoming issues of the newsletter, I will present the more common flowering plant families found around western Pennsylvania in "phylogenetic" order, which is a hypothetical evolutionary history of organisms. This phylogenetic order is the sequence most technical identification manuals use for organizing plant families. One plant family will be described each month starting with the most advanced working towards the primitive. I will include a semi-technical description of the family's flower and vegetative characters, stressing the unique features that separate it from other families. I will also state reasons why this family is considered advanced or primitive.

We are starting with the Asteraceae because it is one of the most advanced and largest flowering plant families, but mainly because it is one we can easily recognize and find specimens to study this time of year.

Jeffrey Polonoli

Who ever heard of a flower changing color?

The Scarlet Gilia (*Ipomopsis aggregata*) lives high in the Rocky Mountains. By the fourteenth of July, it has ten to twelve pretty red flowers on a stalk. The long red tube attracts hummingbirds.

By the first of August, the nights are cool at the top of the mountains, and the hummingbirds fly south. What's the Scarlet Gilia to do now that the hummingbirds are gone? It's still warm enough to make seeds.

It changes color. Flowers fade out their red color and turn pure white. Why? To attract the Hummingbird Moth! It comes out at night and sees pure white flowers. Red wouldn't show up at night.

Who ever heard of a flower changing color to attract a different pollinator? This is like changing horses in the middle of the stream.

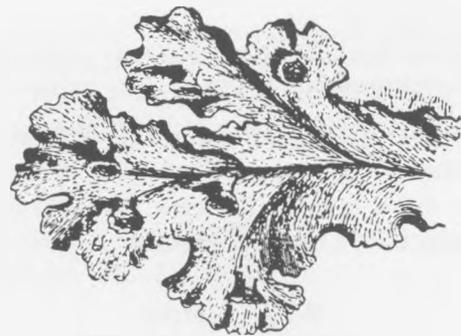
From "On Sabbatical Leave - Plants"

by Ranger T. Manka



Best Wishes and Sympathy

Members extend their best wishes to former member Joe Domitrovich, now living in eastern Pennsylvania. Joe is recovering from a recent surgery. We also extend our deepest sympathies to Joe for the loss of his daughter this fall.



Leafy Liverwort - *Marchantia polymorpha*
Members on the November 14 field trip to Kildoo Trail observed the liverwort's gemmae cups – one means of asexual reproduction

Directions to the Meeting

Clip and save these detailed directions to the monthly meetings.

From the East - Follow Route 376 West into Pittsburgh. Take Exit 7A - Oakland. Travel up a hill to the first light, and turn left onto Boulevard of the Allies. At the first light on Boulevard of the Allies, turn right onto Halket Street. Drive to end of Halket to Fifth Ave. Turn left onto Fifth Ave. Move to the right lane; you will soon turn right at the entrance to Carlow College.

From the North – Follow I- 79 South, then I- 279 South. Approaching the city, take I-579 South (Crosstown Blvd) and stay in left lane as you cross the Veterans Bridge. Follow signs for Rte 376 East, Monroeville. This puts you on the Boulevard of the Allies. Do not exit the Boulevard at the Rte 376 ramp. Stay on the Boulevard toward Oakland. Take exit immediately following Rte 376 ramp (this exit is not well marked). The exit puts you onto Forbes Ave. Proceed two blocks to the second light. Turn left onto Halket St., then left onto Fifth Ave. Move to the right lane; you will soon turn right at the entrance to Carlow College.

From the South, and West – Follow I- 279 North through the Fort Pitt Tunnel into the city. Follow signs for 376 East. Take Exit 5 - Forbes Ave. On Forbes Ave., go to second light. Turn left onto Halket St., then left onto Fifth Ave. Stay in right lane; you will soon turn right at the entrance to Carlow College.

Once you turn right at entrance to Carlow College, proceed all the way to the top of the hill to a large parking lot. Park here; do not park in unauthorized areas. A campus directory is located at the west end of the lot. Regular meetings take place in the Kresge Theater. The Christmas meeting will take place in Aquinas Hall.

How the Holly Got Her Berries

The days grow short and snowflakes fall
Upon the frozen ground.
Stillness fills the woodland hills;
The world is held spellbound.

Underneath the pristine sheet
Of crystalline cocoon,
Holly sighs and winks her eyes
At Hairy the Puccoon.

Blushing in his frigid nest
Down to his sturdy root,
Hairy glows down in his toes
And thinks, "Forbidden fruit!"

"What should I do, imprisoned here
Within this icy tomb?
What's on her mind? How can I find
Escape before I bloom?"

Hairy blushed and bowed his head;
He shyly hemmed and hawed.
The little chit soon left him smitten,
Now his heart had thawed.

Holly's arms reached out to him
And as their fingers touched,
His anguished screams broke all their dreams.
His torn up leaves he clutched.

Holly sobbed "How can this be?
I found my loving swain.
My sharp and thorny leaves adorn me--
Touch is too much pain!"

Hairy slumped in agony;
He crumpled to the ground.
He withered there, the brief affair
Left him dry and browned.

Holly's tears mixed with his blood
And dried upon her brow.
The Christmas berry came from Hairy:
Sits along her bough.

But do not mourn for Hairy's fate
For Nature did intend,
He blooms again in June and then
Lives on until ... The End.

Lee Ann Reiners

Botanical Society of Western Pennsylvania – Dec 98
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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>.