

# Wildflowers

## THE BULLETIN OF THE BOTANICAL SOCIETY OF W. PA.

*Aureolaria virginiana*  
submitted by Forrest Piehl



### MAY MEETING

Monday, May 10, at the Potting Shed of Phipps Conservatory, Schenley Park - 8:00 P.M.

Virginia Craig, our vice-president, will give the program, "Wildflower Safari in the Cascades and Olympic Peninsula."

### FIELD TRIP SCHEDULE

Rendezvous time for all field trips is 1:30 P.M. All are on Saturdays. Any questions, call Jasper Brown at 364-8229.

#### May 1 - Cucumber Falls, Chiopyle

Refer to April bulletin.

#### May 8 - Harrisonville, Pa.

Refer to April bulletin.

#### May 15 - Wolfe Creek, Pa.

Refer to April bulletin.

#### May 22 - Chartiers Creek, near Canonsburg

This is where the *Camassia* is abundant. Meet at McDonald's Restaurant in their parking lot at the I-79 exit to Canonsburg. Esther Allen leader.

#### May 29 - Moraine State Park

A year ago some yellow ladies' slippers and showy orchis were transplanted in an effort to salvage them from lumbering operations. Although this is too late to find bloom, it would be satisfying to know the outcome of the operation. Drive north on Rte. 528 from Prospect. Over the bridge take first right. Meet under the bridge.

#### June 5 - Titus Bog

Our annual pilgrimage to view the *Arethusa bulbosa* in our bog, owned jointly with the Presque Isle Audubon Society, is always a botanical event. Meet at the State rest stop on U. S. Rte. 6 between Union City and Corry. State Rte. 89 also passes this point. Leader Bob Morgan.

#### June 12 - Cambridge Springs

We are invited to be the guests of Bob and Stella Reiner and their daughter Lee Ann at their home, Sparrowood Wildlife Refuge, near Cambridge Springs.

Drive north on I-79. Exit onto Rte. 198 to Saegertown, then north on U. S. 19 through Cambridge Springs. Just past the spring house of the old Cambridge Springs Hotel, meet at the first road on the right. The wooden walk to the spring house is hardly recognizable from decay, and the spring house is not much better. The road is not labeled, but there is a sign for "Frank's Lawn Mower Service." If you pass the turnoff, there will be a golf course on the left. This is in the French Creek area about midway between Cambridge Springs and Canadohta Lake, Crawford County.

Last year about 25 specimens of *Soiranthes lucida* were found here. Let's see if they are still there.

### HELEN BLAIR MEMORIAL AWARD

Congratulations to Matthew Ludwig of North Allegheny Intermediate High School. His Buhl Science Fair entry, "A Sound That Grows," won the Helen Blair Memorial Award given by the Botanical Society. Congratulations also to his teacher, Dr. Sarver.

(For Manka)

MAY, 1982

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### ECOLOGICAL AND ANATOMICAL STUDIES OF A PLANT BUCCANIER

We continue with Forrest L. Piehl's treatise on *Aureolaria virginica*, false-foxglove....

Conclusions/Applications: I have proposed that a departure from the apparent autotrophic nutrition of *Aureolaria virginica* exists. This is brought to light by the discovery of invasion of the roots of neighboring plants by its nodule-like root modifications called haustoria, with oaks being the major but not the only host.

Haustorial structure bears a general resemblance to that in the literature for some other parasites but displays a vascular structure differing from many of them. Data on haustorium size, frequency, and distribution do not exist for others in the literature so comparisons cannot be made.

Remarkably complete connections are produced to the host's vascular supply. Detailed light microscopy utilizing multiple staining, and recent work by the writer done at West Virginia University in scanning electron microscopy (SEM) substantiates and photographically documents at several levels of magnification direct cell-to-cell xylem continuity from *Aureolaria* to host.

The direct contact and even intracellular invasions of tissues of totally unrelated species (even different families and orders!) is quite astounding and greatly departs from the limits known for grafting. Thus, *Aureolaria* is a green, partial, or "hemi-parasite."

(to be concluded next month)

### PRESIDENT'S SCHEDULE

Our president, Tim Manka, was accepted for the play "The Sound of Music" and regrets that he is unable to attend the April and May meetings. On June 13, he starts as a ranger naturalist at the Chincoteague section of Assateague National Seashore, Va. He offers free ice cream to anyone who stops for a visit this summer. Thank you, Virginia Craig, for conducting the meetings in the president's absence.



### CAR POOLS FOR FIELD TRIPS

We've needed this for a long time, certainly since gasoline passed the dollar a gallon mark.

Steve Szabados has volunteered to act as co-ordinator for those who need rides for field trips and those who are able to provide them. Either way, call these numbers -

Daytime, Mon. through Fri. - 644-2770

Evenings and weekends - 621-4198