



THE BULLETIN OF THE

Botanical Society of Western Pennsylvania

You are cordially invited to attend and celebrate!

Please join your fellow members on October 8, 12 noon to 4 p.m., to celebrate the founding of BSWP. We will meet and enjoy a luncheon at Amici's Banquet and Meeting Center (formerly Tambellini's), 860 Saw Mill Run Boulevard (just south of the Liberty Tunnels on Route 51), Pittsburgh, PA.

Dr. James Bissell will be our keynote speaker. The title of his talk is "Twenty Years of Plant Community Changes at Presque Isle".

Jim is Curator of Botany, Coordinator of Natural Areas, and Director of the Center for Conservation and Biodiversity, Cleveland Museum of Natural History.

Dr. Bissell's current projects include researching and mapping the flora of Presque Isle State Park, which harbors a significant number of rare plants; studying the nature and distribution of ephemeral palustrine communities in northern Ohio and northwestern Pennsylvania; and pursuing priority fieldwork in areas having the greatest potential for harboring significant biotic communities or rare species.

You will be receiving an invitation to the celebration luncheon by US mail, and it will ask that you RSVP Dr. Mary Joy Haywood at 412-708-4952.

A Brief History

OF THE BOTANICAL SOCIETY OF WESTERN PENNSYLVANIA

Excerpted from Publication I, 25th Anniversary Edition, November 27, 1911

A preliminary meeting looking towards the organization of a botanical society was held in the office of Dr. B. Burns, 5 Federal Street, Allegheny, October 7th, 1886, with Dr. Wm. R. Hamilton presiding and Dr. Adolph Koenig acting secretary. A constitution for the "Botanical Society of Western Pennsylvania" was adopted at the next meeting, October 21st, 1886, held in the Fourth Ward School House, Pittsburgh, and at the third meeting, November 4th, 1886, in Dr. Hamilton's office, 37 Ninth Street, Pittsburgh, the Constitution was signed by thirty-six charter members and the first regular officers elected.

COLLECTIONS. During the earlier years of the society there was accumulated quite an extensive herbarium, relating more particularly to the flora of Allegheny County. Under certain

restrictions this herbarium was transferred to the Section of Botany of the Carnegie Museum, where it is always available for reference. Founded mainly upon the collections embraced in the herbarium thus transferred there appeared in the *Annals of the Carnegie Museum* (Volume 1, pp. 14-127, March, 1901): "A Preliminary List of the Vascular Flora of Allegheny County, Pennsylvania," by Dr. John A. Shafer, the then custodian of the Botanical Collections of the Carnegie Museum and one of the charter members of the society. Since transferral to the Museum the collections have been considerably augmented by contributions from the various members of the society and, based mainly upon these further contributions, or else upon specimens in the old collections, there appeared the

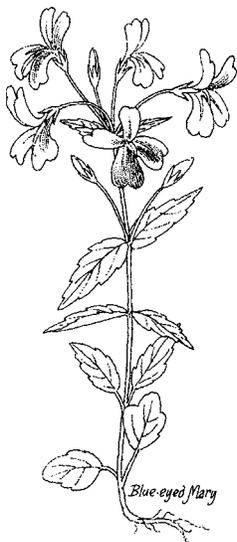
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Blue-eyed Mary (*Collinsia verna*), 1981. Courtesy of Arabelle Wheatley, Illustrator.

wildflowers

SEPTEMBER
OCTOBER
2011

Wildflowers, Bulletin of the Botanical Society of Western Pennsylvania, is published bimonthly by the Botanical Society of Western Pennsylvania. We welcome short articles of botanical interest, drawings, and notices of botanical events and group activities. Send to the editor at the address below. Deadline for submissions is the 16th of the previous month. *Wildflowers* is printed on recycled paper.



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The Society meets the second Monday of each month, September through June, at 7:15 p.m. sharp, at Kresge Theater, Carlow University, 3333 Fifth Avenue, Oakland. All are welcome to the informative program and business meeting.

MEMBERSHIP INFORMATION

Annual dues are \$10 for individual and \$15 for family. Students can join at half-rate. To join, mail your name, your address, and check payable to "Botanical Society of W PA" to Judy Boyer, 211 Lee Avenue, Pittsburgh, PA 15237. Your membership includes a subscription to the bimonthly bulletin *Wildflowers*.

The Botanical Society was founded in 1886. 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.

September & October

Registration for Botanical Society field trips is not required. Everyone is welcome, including non-members. Trips last 3 to 4 hours but one can leave at any time. For questions, call the field trip leader or Loree Speedy at 724-872-5232. Wear shoes that can get wet or muddy. Water and a hat are recommended.

Sunday, September 18 — Meet at carpool site 12 noon

Cranesville Swamp, Preston County, West Virginia

Leader: Bob Burrell

Contact Info: 304-594-0766; bobeb@comcast.net

Directions: From Pittsburgh, travel I-79 south to West Virginia. South of Morgantown, take Exit 148 to merge onto I-68 east toward Cumberland, MD. Travel I-68 east for 23 miles to Exit 23 (WV26/Bruceton Mills). At the end of the ramp, turn right on WV-26 and park in the big gravel parking lot immediately on the right. We will meet here at the gravel lot. (A convenience store on WV 26, and the village of Bruceton Mills, are just north of this intersection.)

We will meet at 12 noon at this intersection in Bruceton Mills to carpool by way of caravan. Cranestville Swamp is another 18 miles over poorly-marked back roads and parking is somewhat limited.

Cranesville Swamp is a boreal bog that sits in a natural bowl or "frost pocket" and its cooler habitat harbors many plants that are normally only seen in more northern climates. The Nature Conservancy began purchasing property to protect the site in 1960. A 1500-foot boardwalk allows easy exploration of this peatland bog that straddles both Maryland and West Virginia and is only about 11 miles from the Pennsylvania line.

Sunday, September 25, 1 p.m.

North Park, Allegheny County

Leader: Dianne Machesney

Contact Info: 412-366-7869; DIANNEM15237@aol.com

Directions: From PA 8 north of Pittsburgh, travel north about 7 miles from Etna to Wildwood Road. Turn left onto Wildwood Road. After 3 miles, after passing a convenience store and Tastee Freeze on the right, park on the left side of the road, just before the big intersection with Babcock Boulevard.

From I-279 north of Pittsburgh, exit I-279 at Exit 4 (McKnight Road) and travel McKnight Road 4.5 miles to Babcock Boulevard. Continue north on Babcock Boulevard about 3 miles to a major intersection/stop-light in North Park and turn right. Continue a short distance to a parking area on the right.

Note: We will look for Closed Gentian and other fall-bloomers.

Field Trips

Saturday, October 15, 9 a.m.

“Save the Gentians” Work Day at the Arboretum in North Park, Allegheny County

Leader: Dianne Machesney

Contact Info: 412-366-7869; DIANNEM15237@aol.com

Directions: From PA 8 north of Pittsburgh, travel north about 7 miles from Etna to Wildwood Road. Turn left onto Wildwood Road. After 3 miles, after passing a convenience store and Tastee Freeze on the right, park on the left side of the road, just before the big intersection with Babcock Boulevard.

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Note: The Botanical Society of Western PA in conjunction with the Penn State Master Gardeners is sponsoring this “Save the Gentians”

BOTANY AND HISTORY ENTWINED RACHEL HUNT’S LEGACY

September 16 – December 15

Hunt Institute celebrates its 50th anniversary by presenting rare gems from the original collection of our founder Rachel McMasters Miller Hunt (1882–1963). Her early love of nature and books grew into a life-long pursuit of rare or historical works about plants, gardens and botany. She became fascinated by the people associated with these books and also collected their portraits, letters, manuscripts and original artworks.

The Hunts decided to donate this collection and a building to Carnegie Institute of Technology (now Carnegie Mellon University) to house both her collection and a campus library.

Dedicated in 1961, the Rachel McMasters Miller Hunt Botanical Library was envisioned as a research center focusing on the history of botany and the history of botanical publication and as a repository where her collections would be preserved, curated, augmented and made accessible to researchers. By 1971 the organization had so diversified that it was renamed Hunt Institute for Botanical Documentation with four programmatic departments of Archives, Art, Bibliography and the Library.

The exhibition will be on display on the 5th floor of the Hunt Library at Carnegie Mellon University and will be open to the public free of charge. Because the hours of operation are occasionally subject to change, call or email before your visit to confirm the hours. For further information, and to learn more about special talks and tours being offered, contact the Hunt Institute at 412-268-2434 or huntinst@andrew.cmu.edu.

Day. As reported in the July-August newsletter, North Park has an old arboretum that has not been maintained in years, and the area is very overgrown. Of immediate interest is the entrance area that has a wild population of Closed Gentians and Pale Green Orchids. Both of these plants prefer a meadow-like setting and are starting to get choked out by the invasive shrubs. With your help we can salvage this area of the arboretum.

If you have them, bring pruning shears and gloves. All levels of help are needed. If you are not up to pruning and pulling, we need knowledgeable members to show the boy scouts which plants are invasive and which must not be disturbed. Snacks and water will be provided courtesy of the Botanical Society.

What a fine way to pay tribute to our dear member Esther Allen, who will be there in spirit!

NATIVE PLANT AND SUSTAINABILITY CONFERENCE

Saturday, November 5

Phipps’ annual Native Plant & Sustainability Conference brings together regional and national experts for a one day conference on plants, landscapes, and our role as environmental stewards. Participants emerge from this event more attuned to their native landscape, and inspired to help shape its future.

This is a can’t-miss event for anyone interested in native plants. For more details about the conference, visit phipps.conservatory.org/exhibits-and-events/, or connect with us on Facebook and view the “Events” tab.

Registration cost includes a lunch. Do so by October 15 for a lower fee. To register, call 412/441-4442 x3925.

This year’s speakers are: Sheila Brady, Principal at Oehme van Sweden Landscape Architects; Patrick Cullina, VP of Horticulture and Park Operations for Friends of the Highline; Linda Johnson, assistant professor, Chatham University of Biology; and Carol Mapes, a national expert on insect galls.

BUTTERNUT UPDATE FROM HTIRC

by Keith Woeste, USDA Forest Service Hardwood Tree Improvement and Regeneration Center, Purdue University

The mission of HTIRC with respect to butternut is to make locally adapted, canker-resistant butternut available to landowners and forest managers in the Central Hardwoods region of the United States. The most likely way to do so will be by breeding disease-resistant (or disease-tolerant) butternuts, and deploying them as grafted clones in seed orchards. Ideally, these seed orchards will be regional or even state-wide and possibly be maintained by a public agency (such as your state's Division of Forestry), by a nonprofit, or by a private nursery. Our goal is to have select, disease resistant or disease-tolerant planting stock for butternut available as widely and as inexpensively as possible. We also want to make sure that once seeds or planting stock are available, there will be clear and effective guidelines for planting and managing young trees. HTIRC (<http://www.agriculture.purdue.edu/fnr/HTIRC>) is ready with expert advice and support for agencies or other groups that need help collecting or propagating butternut.

Links to information about ongoing or recently completed research at HTIRC related to butternut can be found at <http://www.agriculture.purdue.edu/fnr/HTIRC/woeste.html>.

Scientists in the U.S. and Canada have been working together to solve the most important practical questions related to butternut, butternut canker, and butternut recovery. Here are some links to the Canadian websites: http://www.rvca.ca/programs/green_acres/butternut/BNR_2010.pdf http://www.ontariostewardship.org/councils/northsimcoe/files/FGCA_ButternutPamphlet.pdf

http://www.ontariostewardship.org/councils/northsimcoe/files/FGCA_ButternutPamphlet.pdf

What can each of us do to help? Here are several suggestions:

1. Learn more about forest management, reforestation and tree planting. Consider contacting interest groups such as the International Walnut Council (<http://www.walnutcouncil.org/>) or Tree Farmers (<http://www.treefarmssystem.org/>), contact local or statewide group of forest landowners such as the Indiana Forest and Woodland Owners (<http://www.ifwoa.org>), contact your local forestry extension specialist (usually University-based, for publications from Purdue see <http://www.ces.purdue.edu/extmedia/fnr.htm>) or contact a professional consulting forester (<http://www.safnet.org/>).
2. If you have butternuts on forested property, consider managing them to encourage regeneration. Best practices for butternut management still involve a lot of guesswork, but there are a few publications that should help (<http://www.extension.purdue.edu/extmedia/FNR/FNR-421-W.pdf>) http://www.na.fs.fed.us/spfo/pubs/howtos/ht_but/ht_but.htm
3. Contact your state's division of forestry to see if your state has any programs for identifying and sustaining butternut.
4. Eat butternuts and tell others about how good they are. Send butternut recipes (woeste@purdue.edu) and I will post them on my website. Harvesting butternuts in Canada, where they are listed as an endangered species, is likely restricted under the recovery program, so consult before you gather. This link concerns the use of butternut wood: <http://www.extension.purdue.edu/extmedia/FNR/FNR-280-W.pdf>.

Over the past 10 years, HTIRC (established in 1999) has received thousands of butternut seeds from hundreds of landowners, and maintains them in a living library. Some seed sources can be found on <http://www.agriculture.purdue.edu/fnr/HTIRC/woeste/2008%20Butternuts.htm>, an interactive map. The exact location of each source has been altered to protect privacy and to protect the trees. Many seeds produced seedlings that were transplanted to study sites around the Midwest. We keep records related to seed origins so that we and future scientists can learn how seed source affects tree growth and development.

MEMBERS OF THE BOTANICAL SOCIETY FOR OVER 25 YEARS!

Frank & Jane Lutinski, Gibsonia PA — June 1963

Dr. Stanwyn G. Shetler, Sterling VA — November 1964

Timothy E. Manka, Pittsburgh PA — June 1969

Howard & Shirley McIlvried, Pittsburgh PA — September 1969

Anne Bahl, St. Davids PA — September 1969

Billy & Phyllis Monk, Pittsburgh PA — November 1969

Virginia Dell Craig, Tallahassee FL — May 1971

Dr. Gould F Schrock, Indiana PA — October 1971

Robert Morgan, Pittsburgh PA — November 1971

Dr. Richard B Schwendinger, Denver CO — February 1972

Lee Ann Reiners, Tidioute PA — May 1973

Paul Meidinger, Aliquippa PA — September 1973

Paul McWhorter Brown, Pittsburgh PA — October 1973

Elizabeth Bates, Reedsport OR — April 1976

Ruth L. Erikson, Gibsonia PA — June 1979

Daniel & Mary Anne Halulko, Washington PA — March 1981

Rebecca B. Humphrey, Greensburg PA — March 1981

Sally D. Ketchum, Pittsburgh PA — May 1981

Mark Bowers, West Newton PA — July 1981

Mary Paoli, Duncansville PA — October 1981

Dr. Mary Joy Haywood, Pittsburgh PA — December 1981

Joan Eiger Gottlieb, Pittsburgh PA — February 1983

Luc Berger, Pittsburgh PA — June 1983

Bill & Corrine Ray Jr, Cranberry PA — February 1984

Sue Thompson, Pittsburgh PA — December 1985

Gail Blakeley, Wampum PA — January 1986

Bees and Tulip Trees

by Edward H. Graham • Excerpted from
BSWP Trillia Volume 7, 1921–23, October 1923

The amount of nectar secreted by the tulip tree (*Liriodendron tulipifera*) in its flower is exceptionally great. While botanizing in Beaver County, Pennsylvania, about two miles east of Ambridge, my brother and I chanced upon a twenty-five foot specimen of the tulip tree standing alone in a corner of an abandoned field; though late in the season — June 10, 1923 — it was still flowering. Our attention had been attracted to the tree by a loud buzzing and, upon examination, we found it to be alive with hundreds of honey bees (*Aphis mellifica*). Each flower appeared occupied by two or more of the bees clinging, head downward, to the stamens, taking their fill of the fluid standing at the base of the orange-marked petals. Carefully watching we saw a worker come through the air, hover over a flower and finally settle within; in less than three minutes it had departed. Wishing to locate the source of this seemingly abundant honey flow we upturned one of the flowers over the palm of one of our hands obtaining therefrom almost a teaspoonful of a clear, thin liquid. It tasted exceedingly sweet. This we believed to be a pure nectar excretion as there had been little dew the night before and no rain during the previous three days. After removing the flower we observed another bee buzzing about the end of the cut branch as if seeking the blossom we had taken. Upon



Tulip tree *Liriodendron tulipifera* Illustration courtesy of USDA-NRCS PLANTS Database

holding the flower in its original position the bee immediately entered and began feeding. This action, coupled with the fact that we had noticed the bees on every arrival and departure circling around certain flowers rather than above the whole tree, seemed to indicate that each bee picked a particular flower to which it might return, there to receive from one blossom the nectar which, from other sources, it might be necessary to visit many flowers to obtain.

Several other flowers we examined contained a similar amount of nectar but the older blossoms, whose petals were more expanded and whose nectar probably had been consumed by the bees or lost by evaporation, exhibited but a few drops of the secretion.

All this we observed around ten o'clock in the morning; later, in mid-afternoon, we found, on an adjoining hill, another tulip tree with blossoms beyond reach and examination but upon which many bees were working, this apparently proving that the abundance of the nectar remained to some extent, at least, throughout the day.

September & October Meetings *Continued from Back Cover*

(September, Continued) Joan Eiger Gottlieb is a long time BSWP member. She has traveled to many fern hot spots in the world to study their remarkable flora, and has taught botany and biology at California Western University, The University of Pittsburgh, the Pittsburgh Civic Garden Center, and in the Churchill Area Schools (now Woodland Hills). She has published research papers on ferns in peer reviewed journals and review articles in popular literature. She has a PhD in Biology from Harvard University. Her community work includes 16 years of elective service on Churchill Borough Council and countless hours of volunteer work on the Churchill Area Environmental Council.

(October, Continued) humans and the environment on biological life. Current research includes: (1) assessing watershed health in the Fishing Creek Watershed (Columbia & Sullivan Counties, PA) based on stream geomorphology, water quality and biological surveys of algae, aquatic macroinvertebrates and fish; (2) studying the application of lichens as indicators of habitat alteration, climate change and air quality; and (3) monitoring long-term changes in wetland plants following the rehabilitation of a floodplain wetland at Wingfield Pines in Bridgeville.

BSWP Meetings are held on Mondays at 7:15 p.m. at Kresge Theater, Carlow University, 3333 Fifth Avenue, Pittsburgh, PA (Oakland). Kresge Theater is on the top floor of the Grace Library and is accessed from the upper campus. Place a note on your dashboard saying "Botanical Society Meeting," or use your parking permit.

Brief History *Continued from Front Cover*

"Additions and Corrections to the List of the Vascular Flora of Allegheny County, Pa." (*Annals of the Carnegie Museum*, Vol. III. pp. 473-479, 1906), by Mr. O. E. Jennings, the successor to Dr. Shafer as custodian of the Botanical Collections of the Carnegie Museum. Based thus almost entirely upon the various collections made by members of the society the vascular flora of Allegheny County was brought up to the number of 991 species.

LIBRARY. The society accumulated during its earlier years a small but valuable library of about one hundred volumes and as many more pamphlets and volumes of periodicals. Among these publications are a number of rare books by the older botanists, such as Linnaeus, Marshall, Michaux, Nuttall, Pursh, etc. This library is housed in cases belonging to the society and is now placed in the Herbarium Room of the Carnegie Museum, where it may be freely consulted by members of the society. *Note: This book collection is still available to members. Contact Bonnie at 412-622-3253 or isaacb@carnegiemn.org.*

September Meeting

SEPTEMBER 12. Local ferns expert Dr. Joan Gottlieb will speak during the first of BSWP's 2011–12 meetings.

“Ferns Are Ferntastic” is an ode to this often neglected or overlooked part of our botanical heritage. There will be an introduction to the geological and evolutionary history of ferns, their unique life cycle, and their propagation by division or spores for garden and landscape use. The rest of the program will introduce the best ferns to use in woodland, wet, acidic, and limestone habitats. Emphasis is always on our native species. Participants will receive handouts covering all program material and a live native fern specimen with which to start their ferntastic garden. They can also examine living material and recommended books before and after the program.

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October Meeting

OCTOBER 10. Matthew Opdyke is our October speaker and will have a Lichen show and tell and power point presentation. You are welcome to bring specimens.

Dr. Opdyke is an Associate Professor of Environmental Science at Point Park University. He teaches a graduate course on Politics and the Environment and undergraduate courses in Ecology, Biological Evolution, Botany and Introduction to Natural Sciences. His research focuses on studying the ecological impact of

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Wildflowers of Pennsylvania (400 pages, 612 color photos) can be purchased for \$20 (plus \$1.40 sales tax for PA residents). Add \$2 postage and handling for one book, \$3/two, \$4/three, \$4.50/four. Forward your check, made payable to Botanical Society of Western PA, and your request to Dr. Mary Joy Haywood, RSM, PhD, 3333 Fifth Ave., Pittsburgh, PA 15213-3165; 412-578-6175; mhaywood@carlow.edu

We wish to place copies of *Wildflowers of Pennsylvania*, BSWP's labor of love, co-authored by Dr. Mary Joy Haywood and Phyllis Monk, in libraries in every one of Pennsylvania's 67 counties. We seek book donors. For the purchase price of a book (see above), a special book plate inside the book cover will display your name, if you wish, and a notation of your donation

in honor of BSWP's 125th. To donate books, contact Dr. Haywood (contact information is inside front cover). Book donation information will also be on www.botsocwpa.org.

