RHODOGRAVURE

NEWSLETTER OF THE DELAWARE VALLEY RHODODENDRON SOCIETY ::::::: Spring 2025

Follow the swallowtails

You may see a deciduous azalea being pollinated

By Karel F. Bernady

One of the joys of the rhododendron experience is to observe our native plants in their environment. With camera in hand, I have traveled a bit and recorded that history to share and to encourage others to explore our natives. Nothing could distract me from taking a shot of stunningly beautiful flowers of our native deciduous azaleas.

But wait! A flash of color! Different colors! What was it? What grabbed my attention from the flowers? What always grabs my attention from the flowers? A butterfly! A swallowtail butterfly! I had to photograph it. Thus, over the years I have collected images of butterflies that cast me into wonderment about their presence, especially among native azaleas. Why, when, where?



Photos by Karel F. Bernady

Rhododendron cumberlandense with a helpful visitor. Notice the relative positions of the wings of the butterfly and the stigma and anthers of the flowers.

The earliest image I have is an eastern tiger swallowtail on *R. prinophyllum* blossoms in the Catskill Mountains in June 1988. I climbed to Giant Ledge after driving two hours from home to reach the trailhead. Many times I have visited here, once even three weekends in a row to see the progression of roseum¹ blooming from a single opened flower to full trusses with spent flowers hanging. Often, tiger swallowtails were there flitting about.

Capturing them on film in the predigital age proved challenging. They do not stay long and the conditions of ever-changing wind and light on the treed mountaintop made taking their image in sharp focus quite difficult. The constraints of using a tripod to steady the camera further inhibited free movement to follow the butterfly's flight. But I persevered.

Giant Ledge describes the terrain with a 100-foot sheer cliff face. Several *prinophyllum* plants grow out of crevices down on the rock face. They were easily spotted when blooming and when a

¹ Rhododendron prinophyllum was formerly known as R. roseum.



R. prinophyllum

they present?

swallowtail visited. Out of flower they blended into the background. So, the flowers attract the butterflies and the butterflies attract me. They became a telltale to the presence of azaleas.

Prinophyllum is sometimes called the mountain azalea. I have seen it flowering in West Virginia at the high-altitude plateau Dolly Sods and on the state's highest mountain, Spruce Knob. Tiger swallowtails are always present, and I have been able to capture their images more frequently digitally. Flame azaleas, *R. calendulaceum*, also grow in the area near Spruce Knob. I have successfully photographed swallowtails on the flame azaleas. But why are

It turns out that the swallowtail butterfly is a key pollinator of the native azaleas. In an outstanding research project, Mary Jane Epps of North Carolina State University and her coworkers found that the eastern tiger swallowtails pollinate flame azaleas using their wings.² The butterfly has the right size and anatomy to capture pollen from the flower's anthers with their wings and spread it onto the stigma of the flowers. Native azaleas have elongated stamens and pistils, the ends of which (pollen sacs, or anthers, and

stigma) are far separated from the nectar deep in the center of the flowers, the chief attractant and source of energy for insects and hummingbirds. The research demonstrated that smaller insects such as bees fail to pollinate the flowers. The work also showed that the wings and not the body of the butterfly carried the bulk of pollen.

So informed of the role of swallowtails in pollinating native azaleas I reviewed my images of flowers and butterflies. I have pictures of swallowtails on flame azaleas in the Appalachian Mountains, *R. cumberlandense* on Black Mountain, Kentucky, *prunifolium* in Calloway Gardens, Georgia, and *arborescens* on Mount Davis, Pennsylvania's highest peak. You can see pollen on the wings of a few. These plants set seed pods from successful pollination.



R. prunifolium

What about azaleas growing in our area? I have no picture of *periclymenoides* (commonly known as pinxterbloom) with a butterfly nearby. In fact, I do not recall ever seeing a swallowtail during their flowering in May. Does this speak of a lack of pollinators for this species? I have returned in the fall to see if seed pods are present on the pinxterbloom azaleas. Invariably, large plants are nearly completely devoid of seed pods. Most times at home in Chester County I've seen swallowtails during the summer well after *periclymenoides* has flowered. In contrast, in the Poconos one may find *periclymenoides* shrubs with seed pods. Are pollinators more present in mountainous areas than our urban/suburban environment?

Another mystery to me can be found in our home gardens. I have observed in members' gardens deciduous azaleas, both native species and hybrids, that set seed in abundance while azaleas next to them

² "Reproduction in Flame Azalea (*Rhododendron calendulaceum*, Ericaceae): A Rare Case of Insect Wing Pollination," *The American Naturalist*, August 2015. The RhodoGravure can email a copy of the article on request.

fail completely. They bloom at the same time. Some pollinators were active. Yet swallowtails may not be present at that time in our gardens. Who are the pollinators? A moth? A hummingbird?

I am enamored by swallowtail butterflies and their exquisite beauty. They shout, "Look at me! Look at me!" in the midst of gorgeous flowers. And I look! And I take the photo!

Enjoy these jewels of nature.

Two East Coast conferences, plus one online

The first convention is right around the corner – both calendrically and geographically. The national conference of the Azalea Society of America, sponsored by Jenkins Arboretum and headquartered at the Desmond Hotel in Malvern, Pa., will be May 7-9.

Titled "History and Horticulture," it will feature tours of Chanticleer, Jenkins, Wyn-Eden (Wayne Guymon's home in Chadds Ford), Winterthur, and Mt. Cuba Center. Speakers include John Lonsdale, the guru of woodland companion plants; local garden historian Nicole Juday; and Karel F. Bernady of native azalea fame.

Go to the Azalea Society's website for more information and the registration form.

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A near-annual frustration is that the ARS national convention is just when Philadelphia folks would have to sacrifice a week of local rhododendron glory to travel to the confab. Not this year, for the big ARS event won't be until June, in central Nova Scotia, which at 45 degrees North latitude experiences peak bloom much later than hereabouts.

The dates are June 5-8, with pre- and post-convention add-on tours of gardens farther afield in Nova Scotia and New Brunswick.

During the formal convention dates, there will be garden tours (heard on the bus: "Take a look at those tide lines, Raymond!"), a lobster feast, and speakers. Of particular interest will be the keynote address Saturday night by Hartwig Schepker, managing director of the Botanischer Garten und Rhododendron-Park in Bremen, Germany, speaking on "The Impact of Climate Change on Rhododendrons."

A few tips: Make sure your passport is in order. If driving, make ferry reservations soon. Canada seems more expensive due to the exchange rate; 100 Canadian dollars are the equivalent of about 70 U.S. dollars. Bringing plants back to the United States is doable, but complicated; to get a phytosanitary certificate, all purchases must be made the first day of the convention sale, June 5.

Go to https://ars2025.org for a registration form and abundant information. The "plant sale" tab has details on cross-border requirements.

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There is yet a third conference this spring! But all you need is an online connection, and it's free.

The Rhododendron Research Network is led by Juliana Medeiros, plant biologist at the Holden Arboretum outside of Cleveland. RNN is presenting "Rockin' Around the Clock" on May 29 and 30, a series of numerous short presentations on rhododendron science, biology and evolving issues.

Some of the topics may strike home gardeners as rather arcane, but that's often the case when laypeople bump into scientific research. Among the presentations: "Anthocyanin and Carotenoid Concentrations in Rhododendron Leaves: Ecological and Physiological Variation Across Species"; "Ice Formation and Progression in Rhododendron, and a Mechanistic Hypothesis for Winter Thermonasty of Leaves"; "Phytophthora cinnamomi Threatens Rhododendron Species: Could Trichoderma Be the Next Sustainable Solution?"

To see the entire schedule and to register, go to https://medeiroslab.com/2025-virtual-international-convention. The presentations will also be available online after the two-day event.

A genus spurned

Report from the Philadelphia Flower Show

What happens when the Rhododendron Society stops mounting an exhibit at the Flower Show? Egad, the whole genus – elepidotes, deciduous azaleas, lepidotes, evergreen azaleas – all but disappears.

Such is the conclusion of the RhodoGravure's investigative reporter dispatched to the Pennsylvania Convention Center in early March. (It was a slightly clandestine mission, involving one of the chapter's bi-societal members – Fern Society *and* Rhododendron Society – who served as a docent at the combo Plant Societies exhibit and scoped out the whole show on the side.)

For more than 50 years, the Greater Philadelphia Chapter prepared exhibits for the Flower Show, once even creating a 15-foot-tall "geological" formation made of papier-mâché over a scrillion milk crates. After the show returned to the Convention Center following two outdoor pandemic iterations, the square footage offered to the chapter was laughably small (maybe room for four decent-size thodos and some signage). The chapter politely declined.

This year, our intrepid reporter found only one elepidote rhododendron in the whole cavernous room. One! It was well budded but without a single open flower and devoid of identification. Nary a lepidote or deciduous azalea was to be found. There were a few unimpressive white-flowered evergreen azaleas in a couple of exhibits, and two striking, meticulously clipped yet floriferous evergreen azaleas — in the potted plant competition zone with the clivias and begonias. In one exhibit, an unnamed blush evergreen azalea was planted *in a bog garden*. (The RhodoGravure is not pulling your leg; the judges at least tut-tutted this absurdity.)

Did the pandemic wipe out all the other exhibitors' memories or appreciation of rhododendrons? The major exhibits of the EPA, Philadelphia Electric Co., and Temple Ambler once featured fine native azaleas in full and fragrant flower, and elepidotes were stalwart elements of other exhibits. 'Tis a puzzlement.

The theme of the overall show was "Gardens of Tomorrow," meaning future decades, not the next day. The general assumption of such future gardens seemed to be that nine plants per square foot makes sense, such that the owners of these gardens will need a lot of capital to acquire plant material every year and to pay the thinning ranks of garden workers to somehow weed the area without stomping on everything. Orchids will be as common in the future as dandelions are today. The good news is that the Gardens of Tomorrow appear to have vanquished invasive exotics.

[The RhodoGravure here indulges itself with a digressive admonition: a meadow is not what you see on *Masterpiece Theater*. And definitely nothing like the putative meadow exhibit in the southeast corner of the Convention Center, in which every plant had enough flashy flowers to make a florist swoon. During the 2024 growing season, the New York Times seemed to have an article every three or four weeks exhorting people to ditch the lawn, go full meadow, and save the planet. The RhodoGravure concurs that a real meadow has wonderful implications for ecosystems. But why is it that the meadow-in-a-kit zealots never mention that a quality meadow is more work that what it typically replaces? Why, yes indeedy, it will provide a home for many species: stilt grass, mulberries, English ivy, mile-a-minute vine, Asiatic bittersweet, hairy bittercress, rabbits, maybe deer. Plus some opportunistic native trees – tulip poplars, red maples, hickories, cherries, oaks. A tulip poplar seedling not weeded out in its first two seasons ("What? I have to weed my meadow!?") can be five feet tall three years later. And don't expect your township to be tolerant of "controlled" fires in the style of Native Americans' land management practices.]

Back to the Flower Show. That lonely, unforced elepidote was in a corner of the most alluring exhibit of the show, designed largely by Japan's Ishihara Kazuyuki, who has been wowing visitors to the

Chelsea Flower Show in England for years. It was subtle, it was serene, it was shady. Not a single superchic al fresco dining table with champagne flutes. One section had carpets of moss in the style of the famed Saihoji "moss temple" outside Kyoto. The exhibit's self-description was "futuristic gardens that have overcome today's threats of pollution, climate change, and drought." Touching thought, "overcome."

Chapter elections

At the Annual Meeting and Picnic of the Delaware Valley Rhododendron Society on June 29, the following positions will be filled by the customary membership election: president, for a two-year term, and three members of the Board of Directors, for three-year terms. The winners will take office August 1.

Any member in good standing is eligible. If you would like to recommend a member, or yourself, please submit name(s) to chapter secretary Kim Kopple (kopple.kim@gmail.com) no later than May 19. At its May meeting, the board will form a recommended slate. Nominations from the floor may also be made at the Annual Meeting.

In memoriam

Reid Warren, 1934-2025

Longtime ARS member S. Reid Warren III died February 17. He was 90.

Born in Lansdowne, educated at Upper Darby High School, Roanoke College and the University of Pennsylvania, Reid had a career in social work and mental health. He met Englishwoman Joan Walker while serving in the Army in Europe. They married in 1959.

Reid was known for his fine woodworking talents, a great love of rhododendrons and other plants, and authorship of pithy letters to the editor of the Philadelphia Inquirer. In addition to Joan, he is survived by two children and six grandchildren and great-grandchildren.

When the Warrens moved to New Hampshire in the mid-1980s, many of their rhododendrons were dug up and given to the Valley Forge Chapter for its plant sale. Michael Martin Mills and Randy Dalton were lucky enough to snag a 'Katherine Dalton' and a 'Caroline' that Joan and Reid grew, the latter now being wondrously vast. Others in the chapter no doubt also have such Warren legacies in their gardens.

Ready, set, shop

Two chapter plant sales – end of April and beginning of May

If you wish to fill your garden with same-old same-old rhododendrons and azaleas, go ahead, drop by a big box store. They're cheap(ish), wickedly potbound and addicted to artificial budding stimulants. Not to mention same-old, same-old.

Stop! Don't do it! Just like last year, the Delaware Valley Rhododendron Society will be part of the plant sales at Tyler Arboretum and Jenkins Arboretum. Unlike last year, the sales will not coincide. At either sale, you will have a marvelous, diverse array of species and hybrid rhododendrons and azaleas to load up on, most of which were propagated by the chapter. How does the chapter get such uncommon

and special cultivars? By assiduously going to the gardens of the Great Rhododendron Gurus and hybridizers of our region and taking cuttings of the choicest and rarest. Your favorite garden center pales in comparison.

The sale at Jenkins: Friday, Saturday, Sunday, April 25-27, 9 a.m.-4 p.m., 631 Berwyn-Baptist Road, Devon, Pa. 19333. (Thursday has a pre-ticketed party and sale, \$55.20-\$65.87 per person, 5:30-8 p.m.; to purchase tickets go to https://www.jenkinsarboretum.org/plantsale/ and click on "tickets."

The sale at Tyler: Saturday and Sunday, May 3-4, 8 a.m.-2 p.m. (Friday is Tyler-members-only day with timed-ticket admission. Go to https://tylerarboretum.org/plant-sale for more information.)

Calendar

Important: If you do not receive this newsletter electronically, you will not receive email reminders about a week before events. Please use this calendar to mark your own.

April 25-27 Chapter plant sale, Jenkins Arboretum. See above.

May 2-4 Chapter plant sale, Tyler Arboretum. See above.

May 7-9, 2025 Azalea Society of America national convention. Desmond Hotel, Malvern, Pa. See article on Page 3. More info: <u>Azalea convention</u>.

May 10, Saturday Cut-flower competition (truss show), Jenkins Arboretum. Deadline for entries: 9:30 a.m. To receive entry tags for advance completion, contact show chair Michael Martin Mills (mmm19119@gmail.com, 215-844-6253).

May 20, Tuesday Board of Directors meeting. Jenkins Arboretum, 7 p.m.

June 5-8 ARS national convention, Wolfville, Nova Scotia. See article on Page 3. More info: Nova Scotia convention.

June 29 Annual Meeting and Picnic, location to be determined

Delaware Valley Rhododendron Society A chapter of the American Rhododendron Society

DVChapterARS.org

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President: Stuart Brooks (2024-25), 609-268-7007, sabnj100 @ gmail.com Vice President: Perc Moser (2024-26), 610-635-8290, percmoser @ gmail.com Treasurer: Bob Smetana (2024-26), 610-996-0661, vfarssmetana @ yahoo.com

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Finance: Bob Smetana, chair

Plant Propagation and Sales: Karel F. Bernady, chair Membership: Maris Ogg and Steve Wright, co-chairs

Program: Jerry O'Dell, chair

Communications: Michael Martin Mills, chair; 215-844-6253, mmm19119 @ gmail.com

Website: Steve Henning; rhodyman @ earthlink.net

Mailing address: 14 Northwoods Road, Radnor, Pa. 19087

The American Rhododendron Society is a horticultural organization devoted to the genus Rhododendron – which includes azaleas. At the national level, the society holds annual conferences, publishes the quarterly Journal of the ARS, and fosters plant research and conservation. Its website, www.rhododendron.org, is a trove.

The Delaware Valley Rhododendron Society is the result of the recent merger of the Greater Philadelphia and Valley Forge Chapters of the ARS, and serves rhododendron and azalea enthusiasts in Philadelphia, Southeastern Pennsylvania, southern New Jersey and Delaware. The group typically gathers monthly (except July and December) for program meetings, summer picnic, autumn banquet and multiple plant sales. Activities are at various locations, mostly on Sunday afternoons. Dues are \$40 per year, for combined chapter and national membership and a subscription to the Journal. Contact the president or treasurer (see above) for a form or go to DVChapterARS.org; in the Table of Contents, click on "Join."