

Rhododendron vaseyi and the Southern Appalachians

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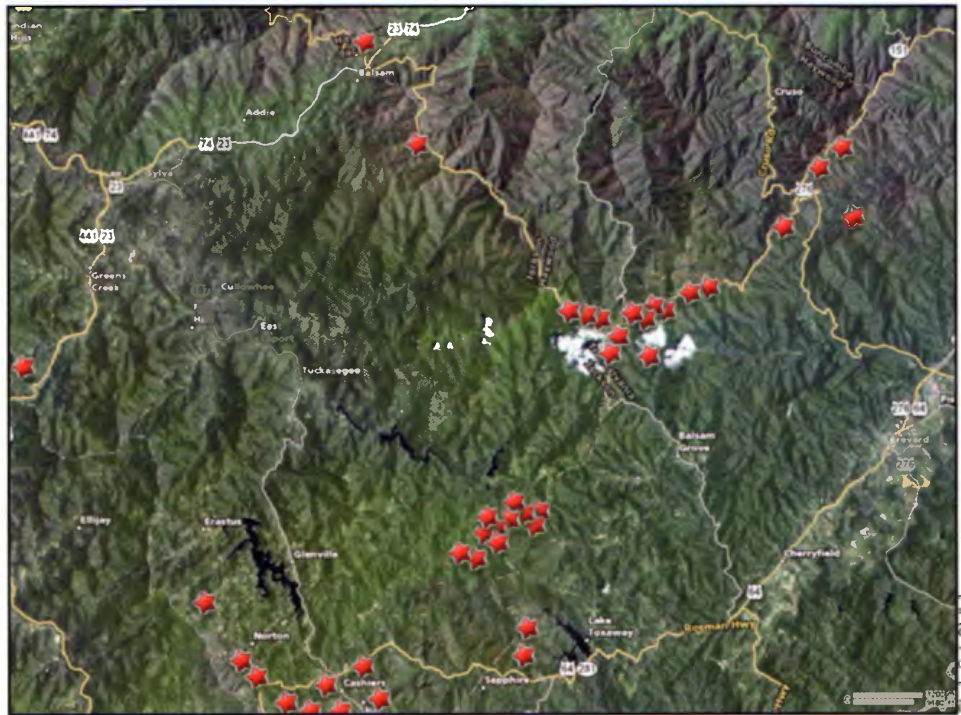
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Editor's Note: The following article was adapted from a presentation made by John Brown and Bob Stelloh at the 2009 ASA Convention in Herndon, Virginia. It was adapted by them from a presentation originally prepared by Don Hyatt and George McLellan. The presentation included 188 slides, and may be made available as a CD-ROM.

Rhododendron vaseyi A. Gray, one of the finest and more unusual native North American azalea species, was discovered at the “summit of a balsam mountain seven miles south west from Webster, Jackson County, North Carolina.” [1] by Dr. George Vasey in 1878. This is shown by the leftmost star on the *R. vaseyi* Distribution Map. It was named by Asa Gray in honor of Dr. Vasey’s son, who was also a botanist. In 1899 it was renamed *Azalea vaseyi* (A. Gray) Rehder by Alfred Rehder as part of his reclassification of the genus *Rhododendron*. In 1903 it was then renamed *Biltia vaseyi* (A. Gray) Small by J. K. Small to honor George W. Vanderbilt, owner of the Biltmore Estate near Asheville, North Carolina. (Now 8,000 acres, the Biltmore Estate once included more than 125,000 acres of forest land, of which 86,000 acres was sold to the United States in 1914 to become the Pisgah National Forest, home to many *R. vaseyi*). It is now safely back in the genus *Rhododendron* as *R. vaseyi*, with the common name Pinkshell Azalea.

Description

Relative to other native American azaleas, *R. vaseyi* has distinctive buds, flowers, leaves, and seed pods. It has perhaps the most limited distribution of our native azaleas, being found only in the more mountainous counties in western North Carolina. Not known to cross with any other azaleas, it is probably most closely related to the more

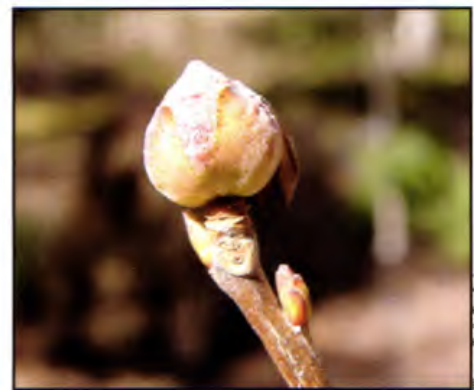


▲ *R. vaseyi* Distribution Map: Blue Ridge Parkway (not labeled) starts at the top right, arcs down to right of center and back up to the top left of center.

northerly-growing *R. canadense*.

The buds are shorter and fatter than those of other native American azaleas, and they open before the leaves expand. In the wild, they typically open from mid-April to May depending upon the elevation. This coincides with the bloom time of many other ericaceous plants along the Blue Ridge Parkway.

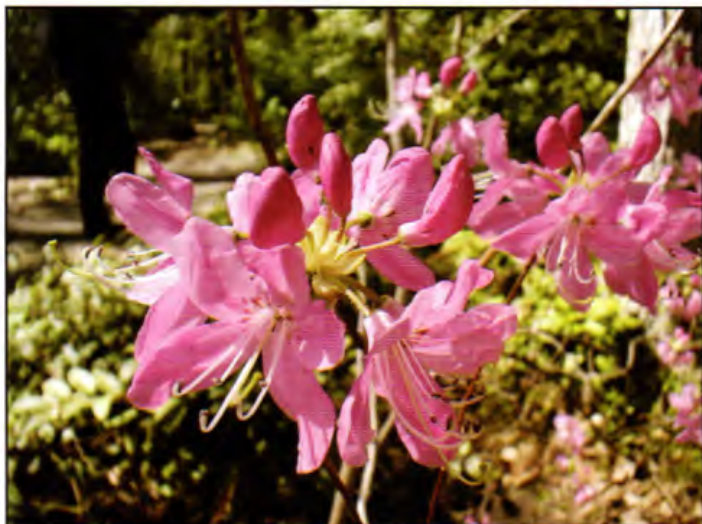
Rather than having the trumpet-shaped flowers of all other native American azaleas (except *R. canadense*), *R. vaseyi* flowers have a flat face on a long flower stalk (pedicel), with three somewhat fused upper petals and two longer and flaring lower petals. The flowers are typically pale pink to pale purplish pink with a greenish throat and brownish red dots at the base. Along with many shades of pink, sought-after color variations range from pure white



▲ *R. vaseyi* bud.

▼ Almost a picotee





▲ 'Cherry Pink': Salem, New Hampshire



▲ Three petals

('White Find') to deep pinkish red ('Don's Red'), with color patterns ranging from solid to near-picotée with darker margins. The flower width ranges from 1.5 to 2.25 inches. Flowers may have 5 to 7 stamens, of which 2 (of 5) or 3 (of 6 or 7) are short and straight, and the others are long and curving. The flowers are not fragrant.

A number of flower-form variations have been found, including flowers with six petals and with three petals. Petal shapes range from rounded to narrow, all the way to strap petals. The flowers are arranged as 5 to 15 flowers per truss with occasional ball trusses. The number of flowers per truss is not consistent from year to year, and may depend upon growing conditions.

R. vaseyi has two distinct leaf shapes: 2.5 inches long and narrowly elliptical toward the ends of the stems; to 5 inches long and broadly ovate toward the base of the plant. The leaves are alternate, with more closely spaced internodes toward the tips of shoots. On many plants, particularly when grown in full sun, the dark green leaves turn a beautiful maroon color in the fall before dropping off.

R. vaseyi has relatively small seed pods which, rather than splitting open at the ends as with other azaleas, instead open in the middle of the pods to disperse the very small seed.

The plant habit of *R. vaseyi* varies from dense and full when grown in full sun, to open, arching and artistic when grown in shade. It typically grows as an upright shrub to about 15 feet.

Culture

We can learn how to care for a plant in our garden by observing where it grows in the wild. *R. vaseyi* grows in thin soil on steep slopes over rocks and near moist seeps, which translates to a need for good drainage in the garden, although experience shows it needs no more moisture than most azaleas. It grows both on exposed ridges and under deciduous forest canopies. Growing on exposed ridges translates to full sun, where it develops its typically beautiful maroon fall foliage quite early in the growing season. Growing under deciduous trees translates to part shade. As with most azaleas,

full sun usually produces a more compact plant and more bloom (but a shorter bloom time) than when it is grown in part shade.

Distribution

R. vaseyi is being grown well in gardens from a small Zone 9 area in Denmark (which is mostly Zone 8), Nova Scotia and British Columbia (Zone 6) in the north to Lexington, South Carolina (Zone 8) in the south. However, probably due to the climatic needs of its seedlings, it grows native in only a small number of mountainous counties in northwest North Carolina, and possibly Georgia. That "small number" is growing as more populations are discovered. Fred Galle's *Azaleas* [2] lists four counties, *Vascular Flora of the Carolinas* [3] lists six counties, Clarence Towe's *American Azaleas* [4] lists seven counties in North Carolina and one in Georgia, and the North Carolina National Heritage Program (NCNHP) *List of Rare Plant Species of North Carolina* [5] says 11 counties. The NCNHP database gives the geographic coordinates of the populations as shown by red stars on the *R. vaseyi* Distribution Map.

Many of these *R. vaseyi* populations are visible along the Blue Ridge Parkway, sometimes called the "Appalachian Trail for cars." Much more than just a road, the Blue Ridge Parkway is a unique 81,000-acre, 469-mile long by 1/4-mile wide no-fee National Park along ridges of the Appalachian Mountains, extending from Shenandoah National Park in Virginia to the Great Smoky Mountains National Park in North Carolina. Begun in 1935, the parkway was planned by landscape architects based on mile-by-mile diagrams they drew to show the trees and major shrubs to be removed and/or planted to help guide visitors' eyes to 1,200 vistas along the road. The road also has 275 paved overlooks and goes over 151 bridges and through 26 tunnels. Parts of the parkway are traveled by about 20 million visitors per year to appreciate the views and the 1,600 plant species within its borders. Most of the plants, 80 percent of them wildflowers, are visible from the road. One of the more notable sites for a variety of wildflowers is Milepost 437, at peak bloom in late

June.

Dr. Larry Mellichamp of the University of North Carolina-Charlotte postulates that finding many of the known *R. vaseyi* populations along roads is no accident (nor the result of lazy plant-hunters), but rather that many of these populations are the direct result of clearing and disturbance of the soil as the roads were built. He goes on to say "Go up there and dig some holes. We need another ice age to get disturbance and regeneration of southern balds. Perhaps only every several dozen years do *R. vaseyi* seedlings get really established—when a combination of right conditions occur—cool, wet all summer. Can you find any really young plants? But they have to try every year—never know when the conditions will be good. Some of those plants up there may be as old as the parkway itself—got started when the roadside was cleared. Then landslides and fires help." [6]

Authorities generally agree that most of the native *R. vaseyi* populations are found from around 3500 to 5500 feet elevation. As shown by the red stars on the *R. vaseyi* Distribution Map, they first appear along the Blue Ridge Parkway for a few miles at Milepost 305 near Grandfather Mountain (off the map to the top right), then again near the Pisgah Inn at Milepost 408 and extending to Beech Gap at Milepost 423 where it intersects State Road 215, with a notable population on Pilot Mountain a few miles due south of Milepost 418. They then sweep southwest along the Tanasee Ridge to Toxaway Mountain (above Sapphire, North Carolina) and beyond to Cashiers and Whiteside Mountain, and perhaps into northern Georgia at Rabun Bald.

Exploration

Notably, the type location of *R. vaseyi*, below Webster, North Carolina, is well to the west of most of the known populations. This suggests a fruitful area for further exploration could be along the ridges between the type location and the Cashiers area, including all of the area east to SR 215. A local botanist, Richard Bryson, indicates at least one large colony on Sassafras Mountain, [7] one of the peaks northwest of Toxaway Mountain. Access to this area is limited due to a lack of roads, the terrain and private property boundaries. The population of *R. vaseyi* on Toxaway Mountain is the largest known contiguous colony, extending for several miles along the north face of the mountain, according to Dick Bir and Richard Bryson. The population on Tanasee Ridge south of the Blue Ridge Parkway may well be the second largest if it extends to the western slope of the ridge.

A smaller population located on SR 107 just south of Cashiers has long been the subject of legend and controversy. The population is strung out along a creek bank and a swampy area at 3000 feet elevation, near the location of an extinct nursery. Urban legend says the *R. vaseyi* in the area escaped from the nursery. A botanist old enough to have personal knowledge reports that the nursery took its *R. vaseyi* collection from the local plants, which may be the southernmost tip of the natural range. This population is interesting because

of the diversity and range of color in the flowers. One plant is pure white with no sign of a blotch.

R. vaseyi was reported to be found near the junction of three trails on the north face of Rabun Bald in northwest Georgia. Repeated attempts to verify this location have not been successful. The writers observed several plants on the south face of Whiteside Mountain which is in a direct line of sight to Rabun Bald.

One of the most attractive locations to appreciate a large expanse of *R. vaseyi* is the north slope of Pilot Mountain. Starting at a trailhead accessible from Forest Service roads connecting to US 276 and SR 215, a moderate hike on the Art Loeb Trail up Pilot Mountain gives stunning views of the Blue Ridge Mountains, and passes through a magnificent colony of mature *R. vaseyi*. To make a visit even more enjoyable, the local wildflower population explodes in cadence with the azaleas. A carpet of *Trillium vaseyi*, *T. erectum*, *T. undulatum*, and *T. catesbaei* surrounded by Umbrella Leaf (*Diphylleia cymosa*) under a canopy of *Magnolia fraseri* and Buckeye (*Aesculus spp.*) fill in the few spots not covered by the soft pink abundance of *R. vaseyi*.

Both known and likely *R. vaseyi* haunts are favorite targets for azalea enthusiasts in early spring, because of their beauty, diversity, and accessibility. Since the popularity of native American azaleas is on the upswing, there is little doubt this exploration will stop, and there is little doubt that more populations and more diverse specimens of *R. vaseyi* will be discovered. To join in, please contact the authors.

John Brown is immediate Past President of the ASA. Bob Stelloh previously served as ASA Treasurer, and is currently very involved with the azaleas e-mail list and the ASA Web site.



▲ Pale pink and six petals

Photo Don Hyatt

References

- [1] Herbarium sheet, New York Botanic Garden, <http://www.pbse.com/image/1994566>.
- [2] Galle, Fred, *Azaleas*, 1986.
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- [4] Towe, Clarence, *American Azaleas*, 2004.
- [5] Natural Heritage Program *List of Rare Plant Species of North Carolina 2004*, Misty A. Franklin, Ed., N.C. Department of Environment and Natural Resources.
- [6] Mellichamp, Larry, personal communication.
- [7] Bryson, Richard, personal communication.