

Plumleaf Azalea—*Rhododendron prunifolium*

By Ken Gohring—Marietta, Georgia

Rhododendron prunifolium, recognized as our rarest native azalea, is an attractive accent plant and a desirable addition to a native garden. The qualities of this species which endear it to many gardeners are numerous. Primary are its attractive blooms and the time of year that they appear. It is a true southern native found naturally only in Georgia and Alabama.

To get a better understanding of the natural growth habits of *R. prunifolium*, discussions were held with native azalea authorities Danny Hall, Steve Yeatts, and Ron Miller, who have extensive experience exploring the South for native plants. These three have found populations of *R. prunifolium* in various areas. They indicate that the species is found in areas near streams or lakes. In many cases the species is located up to 20 feet from moist areas, but Ron is familiar with one population that drapes over water, not unlike *R. arborescens* in low altitude sites.

Prime Natural Areas

The prime location for natural populations is the Lake Eufaula area of Alabama. Lake Eufaula or Walter F. George Lake to Georgians (who will tell you that Lake Eufaula is in Oklahoma) is formed by the Walter F. George Lock and Dam, which spans the Chattahoochee River near Fort Gaines, Georgia, some 70 miles south of Columbus, Georgia. The lake covers some 45,000 acres and has 640 miles of shoreline. The Alabama city of Eufaula, with a population of some 13,000 citizens, is located on the lake. Maps of the lake reveal the feeder streams that flow into the lake. [See Map.] There appear to be more such drainages on the Alabama side of the lake, likely a factor in the trio of

azalea experts designating the Alabama side of the lake as a prime area for *R. prunifolium*.

Many of the drainage areas near the lake have populations of the plumleaf azalea. Ron, who makes extensive use of a boat in his explorations, indicates he has found many drainages into Lake Eufaula that have populations of *R. prunifolium*. Danny and Steve, exploration partners, usually drive country roads in their explorations. Upon reaching bridges and culverts they explore the areas adjacent to the wet areas. Over the years they have found many locations of the species. Internet sources indicate 40 to 50 known natural sites. Ron Miller's experience would indicate that there are many more. He shared a file that can be input into the Google Earth computer program system. This file shows locations where he has found *R. prunifolium*. This file is an amazing tool. The system allows the user to zoom in and magnify the locations where the azaleas were found and show the nature of the environment around the site. In the sites examined, many of the *R. prunifolium* designated populations were located in areas relatively close to the Chattahoochee River. In some cases the sites are located some distance from Lake Eufaula or the Chattahoochee River, likely discovered with the same methods used by Steve and Danny. The Google Earth system clearly shows the vegetation along these drainages. In several cases the sites were located near boat docks on Lake Eufaula. Ron indicates that many times the areas along the lake were difficult to explore and appeared to be snake havens. In his well-known paper about his 1951 historic exploration for native azaleas, Henry Skinner reports a similar experience with snakes at *R. prunifolium* sites.¹

Hybridization

The three explorers were quizzed concerning the characteristics of the plants they found. Steve indicates that in his experience there was not much evidence of cross pollination with any other species. On the other hand, Ron found some evidence of hybridization with other species. The late bloom practice of *R. prunifolium* limits its likelihood of cross pollination. The most likely candidates are the late-blooming *R. arborescens* var. *georgiana* and *R. viscosum*, the highly variable species in both form and bloom time. Ron doubts the occurrence of *R. arborescens* south of the fall line. The fall line is the geographical location where the hard rocks of the Piedmont meet the sands and gravels of the Coastal Plain. In Georgia the fall line stretches from Augusta south and west to Macon and on to Columbus. In Alabama the fall line extends along a curve from near Opelika to north of Montgomery north and west into Mississippi near Tusculumbia. Skinner relates that on his trip to find *R. prunifolium* in southwest Georgia he looked for *R. arborescens* at the southern-most part of its range in Upson County, Georgia.² Upson County is located north of the Georgia fall line. The time of his trip was July 12. He located them in "splendid quantity" in full bloom. Ron Miller's file

▼ Map—Heart of Prunifolium Territory.



Courtesy Charles Andrews

of *R. prunifolium* sites shows several north of the fall line suggesting that there is a possibility of cross pollination with the local *R. arborescens*. The *serrulatum* variety of *R. viscosum* is found in several southern Georgia counties, and it is possible that some of these locations are close enough and the bloom late enough that cross pollination with *R. prunifolium* does occur.

Variation

There are other possibilities for variation in color. The vast majority of references regarding the color of *R. prunifolium* blooms describe them as orange, orange-red, or red. Color variation occurs in several native azalea species, and it is certainly possible that the conditions that cause this are also present in *R. prunifolium*. An interesting aside in Ron's conversation is his experience in observing bloom time of azaleas. He has experienced forms of *R. alabamense* that bloom in July, some two months later than most of this species. He did not indicate that these were likely hybridizing with *R. prunifolium*, as he indicated that their natural locale was farther north of the known *R. prunifolium* sites. [See Photos 1-4.]

Survivability of Natural Populations

The three experts were questioned concerning the likelihood that natural populations of the species would be lost by expanding commercial or residential development. They indicate that this was not likely because of the areas where the populations are found. Most of the sites were in areas not suitable for construction. Steve did indicate that possibly timber operations could be a problem. The state of Georgia indicates the legal status for the species is threatened. There is no federal legal status. The listed threats for *R. prunifolium* are logging and poaching. In her book *Field Guide to the Rare Plants of Georgia*, Linda Chafin indicates that a key to protecting the species is safeguarding locations and the prosecution of poachers.² The safeguarding of knowledge of known locations is apparently a key to the Georgia Department of Natural Resources efforts to protect the threatened species.

Callaway Gardens

One of the sites where Danny and Steve found natural populations is near Callaway Gardens in Harris County, Georgia. The story of the formation of Callaway Gardens by Cason Callaway is well documented. In 1930, Cason

▼ Photos 1-4—Plumleaf Azalea color can vary widely.



Courtesy Charles Andrews



Courtesy Charles Andrews



Courtesy Charles Andrews



Courtesy Charles Andrews

Callaway, a wealthy textile manufacturer, and his wife Virginia, acquired 2,500 acres of Harris County land on which they planned to make a home. This land has been described as gullied red hills and abandoned farmland. The couple expanded their land holdings over the next 20 years. They were inspired by the discovery of *R. prunifolium* on their property, some time before the gardens became a reality. This inspiration led the Callaways to concentrate on conserving native plants found in the area. Mr. Callaway was awarded a conservation medal from the Garden Club of America in 1946 for his vigorous seed propagation program that led to large scale planting of *R. prunifolium*. Callaway Gardens opened to the public in 1952. The late Fred Galle was hired as their Director of Horticulture in 1953. Fred continued the aggressive program of acquiring native azaleas for the gardens. Callaway Gardens is said to be the world's largest azalea garden. While many of the plantings are Asian azaleas, there are a large number of native azaleas. Probably the world's largest plantings of *R. prunifolium* and *R. colemanii* are located there. Fred Galle's dedicated work was certainly a factor in the development of the gardens.

Providence Canyon

The most popular natural location for *R. prunifolium* is Providence Canyon State Park, located west of the town Lumpkin, Georgia, in Stewart County. In the Spring 1999 edition of the *Journal of the American Rhododendron Society*, are two articles on Providence Canyon. One of the articles is by well-respected authority and plant explorer Clarence Towe of Walhalla, South Carolina.³ The other article is by plant explorer and landscaper George McLellan of Gloucester, Virginia.⁴ Both of these respected azalea authorities cite the feeling of being "out west" when visiting the canyon. Clarence's article includes material about *R. prunifolium* and other Georgia native azaleas and includes significant details of the canyon's nine forks and various trails of the park. George's account includes information about a field trip that he led to the site. He also describes the physical characteristics of the canyon. He describes the varieties of colors of *R. prunifolium* that he and his associates found on their visit. He indicates, "We found deep scarlet, red, vermilion, orange-red, orange, pale orange, apricot, deep salmon, pale salmon and even one that I would call flesh pink." He further speculates that a more extensive exploration would have resulted in a good yellow. A 2016 field trip to the canyon resulted in some of the pictures included in this article. [See Providence Canyon photos, p. 7]

Differing opinions exist as to whether other native azaleas grow in Providence Canyon. In the article referenced above by Clarence Towe, he states that a few *R. arborescens* "have found a temporary niche in the changing landscape." The lepidote *R. minus* is present in the canyon in fairly large numbers. Earl Sommerville, another authority who has explored the canyon, indicated that once he saw a white native at Providence Canyon that appeared to be *R. viscosum* var. *serrulatum*. On a return visit he found a hole where he had seen the plant.

Characteristics

Most authorities indicate that *R. prunifolium* has its closest affinity to *R. cumberlandense*. Skinner indicates that its color range is not much different from *R. cumberlandense*. He states, "They both have those characteristic ridged flower tubes in the bud stage; they are both late, both red, and in more detailed morphology have little to show reason why they could not be quite logically and quite possibly regarded as high and low elevation derivatives from a common ancestor."¹ Ron Miller shares a similar viewpoint. In Skinner's article he (Skinner) refers to a discussion with S. D. Coleman, the Georgia nurseryman and native azalea authority who lived in Ft. Gaines, Georgia.

S. D. Coleman wrote several articles about his experiences with native azaleas, including the plumleaf azalea.⁵ He states that it bloomed on his native azalea trail from June to November. Further, he laments the construction of dams, which have flooded many woodlands and destroyed much native plant material. He also discusses how he desired to get as many color and bloom time variations as he could, many times from areas that were to be flooded by these dams. His collection varied from yellow to deep red forms. Coleman says that there were no other azaleas growing or blooming in the areas where he collected and no existence of cross breeding. Thus, he concludes the species will come true from seed. He does say that *R. viscosum* var. *serrulatum* does bloom late but he had not found the two growing together in the same area.

R. prunifolium does not have a fragrance. The leaves and twigs are almost glabrous (without hair), and there are no hairs on the bloom's tubes. Its blooms have only 5 to 8 individual flowers in its clusters. The size of the blooms (1-1/2 to 2 inches) makes up for this. The plumleaf azalea is described as growing to 12 to 15 feet, but some specimens in the wild grow to 20 feet. It can grow to a width of 6 to 8 feet. Garden plants can be easily maintained at 8 to 10 feet with proper pruning. It will not bloom in areas with too much shade. Some afternoon shade is necessary to protect the blooms, which appear in the hot summer. The species' blooms attract hummingbirds, butterflies and bees, all of which aid in pollinating the plants. It prefers a moist, well-drained, slightly acidic soil. Such conditions make it a good plant for woodland slope areas, which drain well. In non-sloping areas, mulching helps retain the needed moisture. The trees found in its natural growth areas include oaks, beech, various pines, and maples. It is capable of sprouting from its roots, but its primary method of reproduction is by its winged seeds, which are dispersed by wind.

Roland Harper first discovered *R. prunifolium* in 1903 in an area near Cuthbert, Georgia. About the same time, Eugene Smith discovered a population near Baker Hill, Alabama. Later the Arnold Arboretum introduced it to the public in 1918. Its late-blooming habit, its attractive blooms and its ability to flourish in southern heat are factors that have resulted in it being used in many breeding programs. Another factor is its ability to survive outside its natural range. It is rated by some as hardy in USDA Zones 5-9. This is a rather wide spread, from central Florida to points as far



Courtesy Ken Gohring



Courtesy Ken Gohring



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Courtesy Ken Gohring

▲ Photos 5-12—*Prunifolium* Color Variation in Providence Canyon.

north as southern Wisconsin, and in the east, coastal Maine. Performance in Zone 5 is marginal. Temperatures in the zone can drop to -20°F and these low temperatures result in bud loss and in some cases plant destruction. Nevertheless, it does survive and flourish in areas outside its natural range.

Forms

There are select *R. prunifolium* cultivars. One of the best is 'S. D. Coleman', named for the nurseryman mentioned earlier. This cultivar was used in numerous pollination efforts. The cultivars 'July Jester', 'July Jingle', 'July

Jewel', and 'July Jubilation' are four of the cultivars in which 'S. D. Coleman' was used.³ The species used in these crosses included *R. arborescens* and *R. cumberlandense*. The hybridizing program at Weston Nurseries, presently in Massachusetts, by Edward Mezitt is one of the more successful programs in developing late blooming deciduous azaleas. *R. prunifolium* had a significant part in the development of these plants. Some of these with *R. prunifolium* heritage are 'Cherry Bomb', a July bloomer with large cherry red flowers, 'Tangerine Glow', a dark orange July bloomer, 'Everglow', which has orange-red flowers that appear in July and August, and 'Pennsylvania', a July bloomer with light pink flowers. The Weston hybrids are some of the most widely used natives to extend the bloom season into the summer. There are numerous other cultivars where this species was used. One of these is 'Late Date' developed by Clarence Towe and his associate Nick Anastos. Joe Schild of Hixson, Tennessee, nurseryman and former ASA president used *R. prunifolium* in developing 'Summer Heat'. The cultivar 'Memory of Fred Galle' is a natural hybrid collected by Fred and his good friend August Kehr.



Courtesy Don Hyatt

▲ *Rhododendron prunifolium*, Artist's Painting.

Galle's Work with *R. prunifolium*

Fred Galle conducted hybridization projects involving *R. prunifolium* in the 1960s. He crossed it with *R. arborescens*. The flower colors of the results of the cross fertilization varied from "light yellowish pink to deep pink." Further, he added that all plants that varied in color from the color of the parents had slight fragrance. These plants bloomed in early to mid July. He also crossed *R. prunifolium* with *R. viscosum* var. *serrulatum*. All of these seedlings had varying shades of orange yellow flowers, slight fragrance, and some had pink tubes. These plants bloomed in late April to early May, earlier than either of the parents. Fred was an exacting master.⁶ Hank Bruno, who worked at Callaway after Fred, stated in an article that Galle attempted 200 crosses of *R. prunifolium* and *R. arborescens* at Callaway. Believing that only superior plants should be named, none of the plants from these 200 crosses was named. In his long career only five Galle cultivars were registered.

Sources

A survey of sellers advertizing on the internet resulted in a few nurseries who sell *R. prunifolium*. Mountain Mist Nursery, located south of Asheville, North Carolina, offers a wide selection of hybrid and species native azaleas, including *R. prunifolium*. Niche Gardens of Chapel Hill, North

Carolina, offers gallon-sized containers of *R. prunifolium* and a *R. prunifolium*-*R. arborescens* hybrid, 'Plum Sweet'. Mail Order Natives of Lee, Florida, offers gallon-sized plants for a good price and Woodlanders of Aiken, South Carolina, sells 1-gallon plants. A wholesale source of *R. prunifolium* and other native azaleas is Ernest Koone, whose Lazy K Nursery is in Pine Mountain, Georgia, near Callaway Gardens. Lazy K has the reputation of being the world's largest seller of native azaleas. Ernest, a long-time friend of Fred Galle and the operators of Callaway Gardens, has done extensive study and exploration of *R. prunifolium*. Ernest's nursery has a good rating on the Garden Watchdog site. Plant offerings by nurseries vary by time, and current offerings may not be the same as the ones indicated here.

R. prunifolium Art

In addition to being a rhododendron and azalea authority, well-known writer, Don Hyatt is an artist. In August 2001 he began to try his hand at painting. He decided to do a painting of a *R. prunifolium* plant in bloom in his garden. Three days later he completed the painting, shown here. At the 2002 joint ASA/ARS national convention he won 1st place in the art show with this painting. Subsequent to doing the *R. prunifolium* painting, he has painted other illustrations of

native azaleas, rhododendrons, camellias, and other plants. He offers 16 watercolor prints to those interested. If you are interested in acquiring the painting shown or possibly others, visit his art gallery on his web site.

Notes and References

- 1 Reprinted with permission from the *Morris Arboretum Bulletin*. April 1955. 6(2). "IN SEARCH OF NATIVE AZALEAS: Henry T. Skinner's Historic Trip, 1951". *Journal American Rhododendron Society*, Summer 2000 (<http://scholar.lib.vt.edu/ejournals/JARS/v54n3/v54n3-skinner.htm>).
- 2 Chafin, Linda G. *Field Guide to the Rare Plants of Georgia*. 2007. University of Georgia Press. 540 pages.
- 3 Towe, Clarence. 1999. "Providence Canyon: The End of the Trail." *Journal American Rhododendron Society*. Spring 1999. 53(2): 62-4. (<http://scholar.lib.vt.edu/ejournals/JARS/v53n2/>)
- 4 McLellan, George. 1999. "Providence Canyon: The End of the Trail." *Journal American Rhododendron Society*. Spring, 53(2): 65-6. (<http://scholar.lib.vt.edu/ejournals/JARS/v53n2/>)
- 5 Coleman, S. D. 1963, October. "Three Southern Azalea Species: *R. prunifolium*, *austrinum*, and *speciosum*." *Bulletin American Rhododendron Society*. 17(4). Transcription (OCR) also available online at Virginia Tech Digital Library and Archives. (<http://scholar.lib.vt.edu/ejournals/JARS/v17n4/v17n4-coleman.htm>).
- 6 Galle, F. C. 1967, July. "LUMPERS OR SPLITTERS." *Journal American Rhododendron Society*. (<http://scholar.lib.vt.edu/ejournals/JARS/v21n3/v21n3-galle.htm>)

Ken Gohring, a Missouri native, is retired from Norfolk Southern Corporation where he worked as a manager in the Operations Research Section. His gardening interests include rhododendrons—primarily native azaleas, native plants and vegetables. He is an active member of the Georgia Native Plant Society, the American Rhododendron Society and is a member of Georgia Botanical Society and the Vaseyi Chapter of the Azalea Society of America. He also edits and produces *Azalea Blooms*, the monthly newsletter for the Azalea Chapter of the ARS.

For the Record: Winter 2018 Issue

In Richard Bauer's article about the ARS Convention in Bremen, Germany, the description of activities on p. 78 should have said the tour site was Bremen Rhododendron Park, not Garden. Photo 14 shown on p. 79 was not taken in Bremen, but in Bad Zwischenahn, described in the last full paragraph on p. 77. We regret both errors.

Recognizing Generous ASA Members

By Paul A. Beck, Treasurer

I would like to recognize and thank the following members who made donations totaling \$3,496 to the Operating Fund of the Azalea Society of America in 2018 and \$2,715 to the Azalea Research Fund. My apologies if I missed anyone.

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