

This Week in the Garden #11: “*Rhododendron prunifolium*” - August 13, 2020

by Don Hyatt - Potomac Valley Chapter ARS

Rhododendron prunifolium

As our summer heat rages on and the humidity seems to get even more oppressive, it is hard to believe that there is a native azalea that actually enjoys that weather. That plant is *R. prunifolium*, one of our rarest native species; it occurs naturally in a small region of southwest Georgia and eastern Alabama. It flowers in July, August, or early September and seems unphased when temperatures rise into the upper 90s or low 100s. It is also hardy to -15° F. How is that for adaptability!

Callaway Gardens and *R. prunifolium*

This beautiful native azalea is the signature plant of Callaway Gardens in Pine Mountain, GA. It was growing on the 2500-acre property when Ida Cason Callaway purchased that land in 1930. Mr. Callaway hired Fred Galle to be its first Director of Horticulture. For 30 years, Fred propagated plants and used them and other native azaleas extensively in the landscape. The lovely garden is a spectacular tribute to them both.

The tubular flowers on *R. prunifolium* are usually orange-red to deep red but we have seen variations in the wild that can be coral pink, yellowish-orange, and even pale apricot. It is important to provide afternoon shade for this species since the flowers will last much longer during those hot summer days.

The rounded plant can grow as high as 15 ft tall and makes an attractive shrub. It has rich green foliage that contrasts well with the flowers. People have said the leaves look like the foliage of a plum tree and they have given the plant the common name, the Plumleaf Azalea. Of course, I never raised plums or visited any orchards so I am not familiar with that foliage. To me, the leaves look just like those on other native azaleas.



R. prunifolium

D. Hyatt



R. prunifolium at Callaway Gardens

D. Hyatt



Plant D. Hyatt



Flowers and Foliage

D. Hyatt



Buds

R. Bauer

Providence Canyon State Park

Providence Canyon is a scenic attraction near the border of south western Georgia and Alabama near Lumpkin, GA. Less than 200 years ago, erosion of poorly managed farmland started that canyon. Now over 150 deep with multiple ravines, the ongoing erosion has revealed the colorful strata in the soils.

R. prunifolium has now colonized many steep walls in those ravines. It is one of the most diverse populations of the species that we can access. We always visit in late July for peak bloom but we see plants that are finished and others still in tight bud. July is HOT so we try to get there at dawn and get out by noon when temps can soar above 100° F.

Most of the forms we have seen are in orange-red to deep red shades but we have seen some with pink, yellowish-orange, or pale salmon flowers as shown below. Flower shapes and sizes vary, too. Some have pointed petals and others are rounded or slightly ruffled. The big prize would be to find a pure yellow but that has eluded us so far.

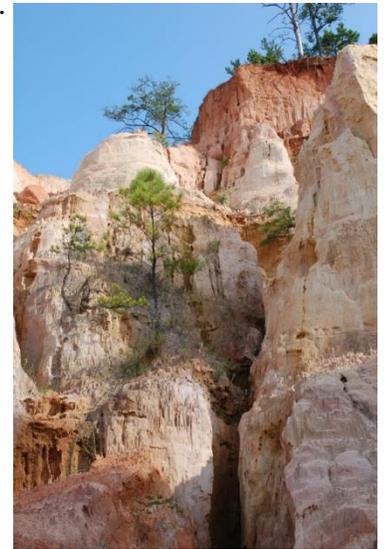
Yes, one representative of a species is never enough!



Providence Canyon D. Hyatt



R. prunifolium in the Ravine D. Hyatt



Providence Canyon



R. prunifolium & Spanish Moss



R. prunifolium - Color Variations

D. Hyatt



R. prunifolium 'Dave's Best'



R. prunifolium 'Dave's Best'

Ralf Bauer's Garden



'Ralf's Chameleon' (AM) R. Bauer



Dr. Ralf Bauer



'Ralf's Chameleon' (PM) R. Bauer

Our chapter member in Germany, Dr. Ralf Bauer, recently sent me some images of *R. prunifolium* from his garden. The first plant Ralf got of this species was 'Dave's Best' pictured above. It is more compact than some. He purchased it from Rarefind Nursery in 2008.

Ralf has multiple forms of all 17 of our native azaleas, most of which he has raised from wild collected seed. This summer, he has been evaluating his *R. prunifolium* seedlings. One plant that he calls 'Chameleon' (shown left) changes color throughout the day. In the morning, it has a definite pink cast but as the day progresses, it develops a neon glow that transforms it to a different color. He has 15 more seedlings from Providence Canyon to flower next year.

Ralf's "Best Red" seedling (below) has quite large blossoms. He just crossed it with his late blooming *R. arborescens* var. *georgiana*. Fred Galle made that cross at Callaway and got some lovely pinks.



Callaway's (*prunifolium* x *arborescens*) D.Hyatt



R. arborescens var *georgiana* with 'Ralf's Best Red' R. Bauer

ARS Research Foundation Grants

DNA Analysis of Native Azaleas

The ARS Research Foundation has approved three research grants for this year which are listed on the ARS Website. One dealt with floral traits of *Rhododendron* species in the Himalayas and another was looking at adaptability of species in Northeastern Ohio. For me, the most exciting is a DNA study of our native azaleas.

That grant was awarded to researchers at Carl von Ossietzky University in Oldenburg, Germany. The lead person on the project is Dr. Dirk Albach and he will be working with Dr. Gulzar Khan who is a specialist in using cutting-edge DNA technology. They will be studying our 17 species of native azaleas in *Pentstemon*.

Whereas many DNA studies look at just a few genes, the new Next Generation Sequencing techniques they will be using can study the entire genome of a plant. Rather than one or two specimens, they can also study 90 different tissue samples simultaneously! It will allow them to compare the genetics of all those plants at the same time and discover minute differences between the species. It could give real insight into the evolution of our native azaleas and the relationships between them.

A key person in this research project is our friend, Dr. Ralf Bauer, from Germany. In addition to this piece, I referenced Ralf in "This Week #5" (April 18, 2020). He has well-documented native azaleas from known sources they will use in the study. Ralf has amassed an extensive collection of our native species, most of which he has raised from seed collected in the wild. I have no doubt he has the best collection of our native azaleas anywhere in Europe. He will be providing the tissue samples of 90 selected plants to Dr. Albach and Dr. Khan.

Another person involved with this project is native azalea expert Ron Miller referenced in "This Week #2" (March 28, 2020). Ron is providing his expertise to help decide which of Ralf's plants will be best to study.

What is exciting is that they will be able to compare multiple representatives of each species. They hope to identify broad differences between the 17 species, but also minor variations found in the same species growing in different locations. We all look forward to the results.

Donate to the ARS Research Foundation!

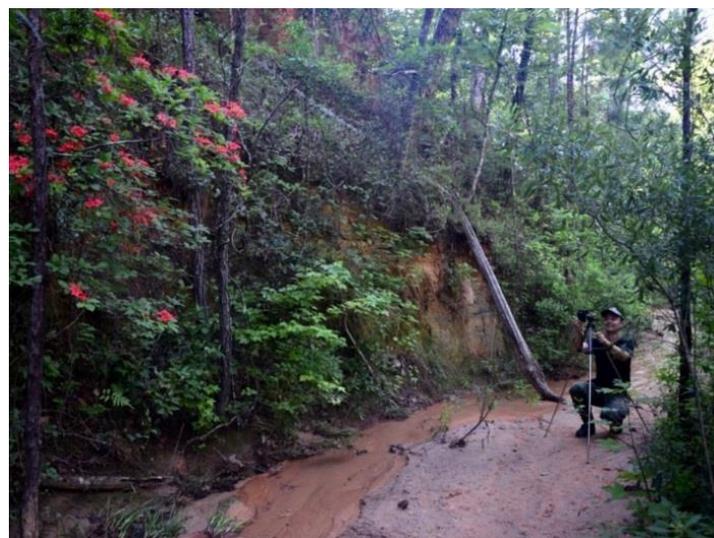
This exciting research is being funded by the ARS Research Foundation. Your dues renewal notice will arrive with your September newsletter and it has a handy place to donate money to this fund. Please consider it!



Entrance to Ralf Bauer's Garden R. Bauer



Lots of Pots of Native Azaleas at Ralf's Home R. Bauer



Ralf and *R. prunifolium* in Providence Canyon D. Hyatt

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