Oconee Bells: "Perhaps the Most Interesting Plant in North America"

Richland Ridge POA Nature Notes March 2017 by Linda Martinson

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Blooming now from late March into April near Richland Ridge is *Shortia galacifolia*, a small, spring-blooming woodland wildflower with the common name Oconee bells or Shortia. It is described as "rare and beautiful...the rarest wildflower...the holy grail of plant collectors...perhaps the most interesting plant in North America." The plant is a low-growing evergreen perennial, beautiful all year round, with shiny, low-growing, green scalloped basal leaves that turn to reddish-bronze in the winter. Shortia has small bell-like, five-petaled creamy white fringed flowers with five shield-shaped yellow anthers and a slightly curved pink or yellow stigma growing on 5 - 7 inch reddish/purple leafless flower stems. The plant grows best in mostly shady woodland areas with moist soil, especially along stream banks. Like other woodland spring wildflowers, Shortia requires some open sunlight to bloom and its seeds require moisture to germinate. It seems to colonize well in locations with disturbed soil, such as flooded stream banks or where trees have fallen, and established plants spread readily, with rhizomes—horizontal underground stems.



Linda Martinson photograph taken on private property in Transylvania County

Shortia is indeed a rare plant, originally endemic to only a few counties (including Transylvania County) in the Southern Blue Ridge Escarpment, the area where the borders of North Carolina, South Carolina, and Georgia meet and the mountains rather abruptly change to the Piedmont. Fortunately, Shortia is a hardy plant and, unlike some other native wildflowers, transplants easily into a suitable habitat. This really is fortunate because up to 60 percent of the original native stands of Shortia were destroyed in the early 1970s, primarily because of the construction of the hydroelectric dam that formed Lake Jocassee. Before the area was flooded, however, many of these Shortia plants were relocated successfully to botanical gardens, private land, and arboretums throughout the Southeast. Another unique feature of Shortia is its compelling botanical discovery story beginning 230 years ago.



Jay Maveety photograph taken at Devils Fork State Park Salem, NC

André Michaux (1746-1802) was a French botanist who was sent to the young country of America in 1785 by King Louis XVI to collect new plants and trees for France. In the late spring of 1787, he traveled up the Savannah River into the Carolina mountains with his son and some Cherokee guides to search for rare and undiscovered plants. Although Michaux's journals are not complete, the botanists and historians who have retraced his route believe that he found, dug up, and dried two specimen plants he found interesting near an old Cherokee settlement at the confluence of the Whitewater and Toxaway rivers in what is now Oconee County, SC.

Eventually these two dried plants, which had not been blooming but that did have their stems and fruit capsules intact, traveled back with Michaux to France in 1797. In 1839, 42 years later, the famous American botanist Asa Gray found one of these unidentified specimens in the National Herbarium in Paris. He recognized it as possibly an exciting new genus, and the search was on to find the living and blooming plant. It was Asa Gray who described the plant as "perhaps the most interesting plant in North America." And it was he who named the plant *Shortia galacifolia*; *Shortia* after his botanist friend Charles Short (who never saw his namesake plant) and *galacifolia* because its leaves were similar to those of galax plants.

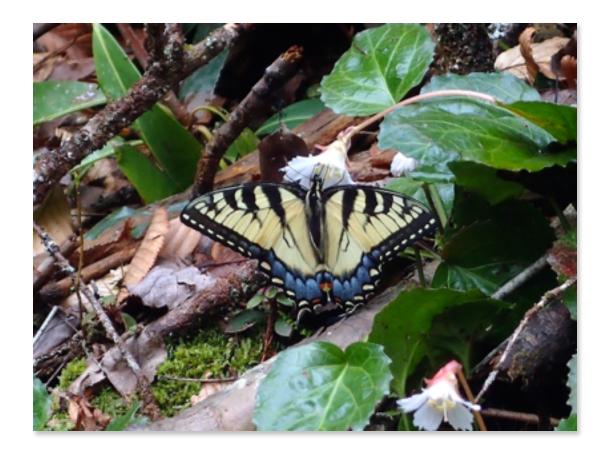
For years, Gray searched for living Shortia and encouraged other botanists to help him find the plant. Finally, in 1877, several years after the Civil War ended, the teenage son of an herbalist found a variety of the plant in McDowell County, North Carolina. Gray traveled there in 1879 and found about 50 plants of Shortia in that area. Another botanist, Charles S. Sargeant, then traveled to the Highlands NC area in 1886 and found several acres of Shortia at the headwaters of the Keowee River in Oconee County SC, and confirmed that it was the same location where Michaux had dug up his two specimens of the "low woody plant with sawtooth leaves" almost a hundred years ago. The locals were familiar with the plants and called them little coltsfoot, but Sergeant gave the elusive flower the common name of Oconee bells. Search for them yourself, especially in the spring when they are blooming, because it is exciting to see these rare and beautiful plants with their compelling botanical backstory.

Thank you to Drs. Jenny Wilker and Jennifer Frick for sharing their informative articles about Oconee bells.

Other references include:

Charles F. Jenkins, "Asa Gray and His Quest for *Shortia Galacifolia*," Arnoldia, Vol. 2, No. 3-4, April 10, 1942. http://arnoldia.arboretum.harvard.edu/pdf/articles/1942-2–asa-gray-and-his-quest-for-shortia- galacifolia.pdf and

An Oconee Bell Celebration: March 16-18, 2007, Clemson University, ed. Brad Saunders, Fevertree Press, 2007.



Steve Livingston photograph Yellow swallowtail butterfly, a likely pollinator for Shortia?

Notes:

The McDowell County native or Northern variety of Shortia is protected as an endangered plant and the native Southern variety of Shortia is protected as a vulnerable plant in North Carolina, and neither may be collected from the wild. Both varieties are listed as Federal Species of Concern, which means that they may be considered for federal protection in the future.

The best way to see the native Northern variety of Shortia (*Shortia galacifolia var. brevistyla*) is to visit Caraway Preserve on an annual field trip run by NC Friends of Plant Conservation (<u>ncplantfriends.org</u>). To see the Southern variety of native Shortia visit Devils Fork State Park, Salem, NC; Gorges State Park, Sapphire, NC or Clemson University's Botanical Garden. There are also some lovely patches of Shortia at the NC Arboretum.