



Common Name: OCONEE BELLS

Scientific Name: *Shortia galacifolia* Torrey & Gray

Other Commonly Used Names: southern shortia, little colts-foot

Previously Used Scientific Names: *Sherwoodia galacifolia* (T. & G.) House

Family: Diapensiaceae (galax)

Rarity Ranks: G2/S1?

State Legal Status: Endangered

Federal Legal Status: none

Federal Wetland Status: FACU

Description: Perennial **herb** forming clumps of evergreen leaves along horizontal stems creeping across the ground. **Leaves** 1 - 3 inches (3 - 8 cm) long, round or oval, shiny, leathery, with a heart-shaped base, flat or slightly indented tip, a network of pale veins, and coarsely toothed edges, each tooth with a tiny, pointed tip; **leaf stalk** 1½ - 6 inches (4 - 15 cm) long. **Flower** white, bell-shaped, solitary at the top of a stalk up to 7 inches (18 cm) tall, with 5 white or pale pink, toothed **petals**; **stamens** topped with flap-like anthers pointing inwards. **Fruit** a 3-valved capsule up to ¼ inch (5 - 6 mm) long.

Similar Species: Oconee bells resembles galax (*Galax urceolata*), but galax leaves are always round with rounded tips; the leaf edges are finely toothed, and the teeth have bristles but not pointed tips; the veins are not pale and conspicuous. Galax flowers are tiny and held in a long, erect, slender spike.

Related Rare Species: None in Georgia.

Habitat: Moist, forested slopes along mountain streams bordered by rhododendron and mountain laurel. Plants flourish in small, sunny gaps in this habitat.

Life History: Oconee bells is a perennial herb that reproduces sexually as well as vegetatively by the spread of horizontal stems (stolons) creeping across the ground, rooting at nodes, and producing new plants at nodes. New shoots are produced by mature plants in late summer, along with next year's flower buds. Oconee bell flowers are pollinated by insects, primarily bees, which are attracted by a mild fragrance and the presence of pollen; there are no nectaries in the flowers. Its seeds are dispersed downslope by gravity and germinate best in patches of bare mineral soil produced by disturbances such as small landslides or tree blowdowns. Seedlings appear in August, overwinter with seed leaves (cotyledons) only, and develop true leaves the following spring. Plants will not flower until they are four or more years old.

Survey Recommendations: Surveys are best conducted during flowering (mid-March–mid-April); leaves are distinctive year-round (turning bronzy-red in winter) but may be buried in leaf litter.

Range: Georgia, northwestern South Carolina, and adjacent areas of North Carolina, in ravines associated with the Appalachian escarpment.

Threats: Logging, clearing, road building, and second-home development. Invasion by exotic pest plants. Plant poaching.

Georgia Conservation Status: Only one population is known, on National Forest land; some have speculated that this population was transplanted from a nearby South Carolina site.

Conservation and Management Recommendations: Avoid logging, clearing, or other disturbance to the canopy and ground layer. Eradicate exotic pest plants. Prosecute plant poachers.

Selected References:

Chafin, L.G. 2007. Field guide to the rare plants of Georgia. State Botanical Garden of Georgia and University of Georgia Press, Athens.

Jones, S.M. 1987. *Shortia*: solving one mystery. *Tipularia* 1(2): 23-25.

Jones, S.M. and M.K. Augspurger. 1988. Seed germination and phenology of *Shortia galacifolia* T. & G. (Diapensiaceae). *Castanea* 53: 140-148.

Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. Technical Publication R8-TP2. United States Forest Service, Atlanta.

Massey, J.R., D.K.S. Otte, T.A. Atkinson, and R.D. Whetstone. 1983. Atlas and illustrated guide to the threatened and endangered vascular plants of the mountains of North Carolina and

Virginia, Technical Report SE-20. Department of Agriculture, Southeastern Forest Experiment Station, Asheville, North Carolina.

Patrick, T.S., J.R. Allison, and G.A. Krakow. 1995. Protected plants of Georgia. Georgia Department of Natural Resources, Natural Heritage Program, Social Circle.

Vivian, V.E. 1967. *Shortia galacifolia*: life history and microclimatic requirements. Bulletin of the Torrey Botanical Club 94: 369-387.

Weakley, A.S. 2008. Flora of the Carolinas, Virginia, Georgia, northern Florida, and surrounding areas. University of North Carolina Herbarium, Chapel Hill.
<http://www.herbarium.unc.edu/flora.htm>

Author of Species Account: Linda G. Chafin

Date Compiled or Updated:

L.Chafin, Aug. 2008: original account

D.Weiler, Feb. 2010: added pictures



OCONEE BELLS

Shortia galacifolia

