
**Common Name: MOUNTAIN WITCH-ALDER**

**Scientific Name:** *Fothergilla major* (Sims) Loddiges

**Other Commonly Used Names:** mountain witchhazel, large witchhazel

**Previously Used Scientific Names:** *Fothergilla monticola* Ashe

**Family:** Hamamelidaceae (witch hazel)

**Rarity Ranks:** G3/S1

**State Legal Status:** Special Concern

**Federal Legal Status:** none

**Federal Wetland Status:** none

**Description:** **Shrub** up to 21 feet tall (6.5 meters), typically about 6 feet (2 meters), densely branched; **twigs** with naked terminal buds. **Leaves** 1 - 5⅜ inches (2.5 - 13.5 cm) long and 1⅝ - 5 inches (4.2 - 12.5 cm) wide; leathery, with blunt teeth on the upper ⅔ of the leaf margin; base rounded or broadly wedge-shaped with unequal sides; nearly hairless on the upper surface, but with star-shaped hairs on the lower surface; the lowest pair of leaf veins extend for a short length as part of the margin of the leaf; some plants have leaves with a waxy coating on the lower surface. White **flowers** with many, showy, white stamens and no petals are held in dense "bottlebrush" spikes at the tips of twigs. **Fruit** a beaked capsule ¼ - ½ inch (0.5 - 1.3 cm) long, splitting open to expel 2 shiny, black seeds. Lower surfaces of leaves, twigs, buds, and flowers are covered with **star-shaped hairs**.

**Similar Species:** Witch hazel (*Hamamelis virginiana*) is a large shrub, up to 20 feet tall, less densely branched than witch-alder. It occurs in moist, upland hardwood forests. It has similarly shaped, but fully toothed, leaves; the lowest pair of leaf veins are included within the margin of the leaf blade. Witch hazel produces yellow flowers in the late autumn. Dwarf witch-alder (*Fothergilla gardenii*)[click here to go to web page], a similar species found in Georgia's Coastal Plain, is listed as Threatened.

**Habitat:** Mixed hardwood-pine forests on dry, rocky (sandstone or granite) slopes and bluffs, often with Virginia pine, scarlet oak, and black oak; occasionally, moist forests with tulip poplar, silverbell, and cucumber tree along rocky stream banks. Prefers acidic soils.

**Life History:** Mountain witch-alder reproduces sexually as well as vegetatively by the spread of stolons. Its flowers usually emerge before the leaves, in early spring, and are held in showy spikes. The numerous, white stamens and sweet fragrance attract bees and other insect pollinators (there are no petals). The fragrant flowers are a rich nectar source. The fruits of mountain witch alder are capsules that shrink as they dry, placing the seeds under pressure. When the seeds are mature, the capsule snaps open and flings the seed up to 15 feet away, out of the reach of competition with the parent plant. Mountain witch alder leaves are brilliantly colored in the fall.

**Survey Recommendations:** Surveys are best conducted during flowering (February–May) and fruiting (spring –early summer).

**Range:** Georgia, South Carolina, North Carolina, Alabama, Tennessee, and Arkansas.

**Threats:** Logging and other clearing, development, exotic invasive species.

**Georgia Conservation Status:** Three populations have been seen in the last 30 years, two on conservation lands: Zahnd Natural Area in Walker County and Chattahoochee River National Recreation Area in Fulton County.

**Conservation and Management Recommendations:** Protect wooded slopes and bluffs from clearing and development.

**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.

CPC. 2006. Center for Plant Conservation National Collection Plant Profile. http://www.centerforplantconservation.org

Dirr, M.A. 1990. Manual of woody landscape plants. Fourth edition. Stipes Publishing Company, Champaign, Illinois.

FNA. 1997. Flora of North America. Vol. 3, Magnoliophyta: Magnoliidae and Hamamelidae. Oxford University Press, New York.

Foote, L.E. and S.B. Jones, Jr. 1989. Native shrubs and woody vines of the southeast. Timber Press, Portland, Oregon.

Fordham, A.J. 1971. Notes from the Arnold Arboretum: propagation of *Fothergilla*. Arnoldia 31(4): 256-259.

Lance, R. 2004. Woody plants of the southeastern United States: a winter guide. University of Georgia Press, Athens.

NatureServe. 2007. NatureServe Explorer. Arlington, Virginia. http://www.natureserve.org/explorer

Radford, A.E., H.E. Ahles, and C.R. Bell. 1968. Manual of the vascular flora of the Carolinas. University of North Carolina Press, Chapel Hill.

Small, J.K. 1933. Manual of the southeastern flora. 1972 Reprint Edition. Hafner Publishing Company, New York.

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

Weaver, R.E. 1969. Studies in the North American genus *Fothergilla*. Journal of the Arnold Arboretum 50:599-619.

Weaver, R.E. 1971. The Fothergillas. Arnoldia 31(3): 89-97.

**Author of species account:** Linda G. Chafin

**Date Compiled or Updated:**

L. Chafin, May 2008: original account
K. Owers, Jan. 2010: added pictures

Inflorescence