

Common Name: FREMONT'S LEATHER FLOWER

Scientific Name: Clematis fremontii S. Watson

Other Commonly Used Names: Fremont's virgins-bower, Fremont's clematis, Fremont's

curly-heads

Previously Used Scientific Names: Clematis fremontii var. riehlii Erickson, Viorna fremontii

(S. Watson) Heller

**Family:** Ranunculaceae (buttercup)

Rarity Ranks: G5/S1

State Legal Status: Endangered

Federal Legal Status: none

Federal Wetland Status: none

**Description:** Perennial **herb** with an erect, hairy stem 6 - 28 inches (15 - 70 cm) tall. **Leaves** 2 - 5½ inches (5 - 14 cm) long and 1¾ - 3¾ inches (3.5 - 11 cm) wide, opposite, leathery, oval; with conspicuously netted, occasionally hairy veins; no leaf stalk; leaf tip pointed or blunt; leaf margin sometimes with 2 - 4 teeth. **Flower** ¾ - 1½ inches (2 - 4 cm) long, bell-shaped, solitary at the tips of branches, with 4 - 5 showy sepals and no petals; **sepals** purple on the outside (sepals yellow on immature flowers), green on the tips, and white on the inside; hairy only on the edges; tips of the sepals curve upwards. **Fruits** about 1 inch (2.5 cm) long, each with an elongated beak that is nearly hairless on the outer ½ of its length, grouped into a "curly-head."

**Similar Species:** Four other Georgia leather flower species (*Clematis crispa*, *C. glaucophylla*, *C. reticulata*, and *C. viorna*) have similar flowers; they are climbing or sprawling vines with 3 - 9 leaflets per leaf.

**Related Rare Species:** Curlyheads (*Clematis ochroleuca*, Special Concern) is very similar to Fremont's leather flower, but the entire plant is covered with long, white hairs; the flowers are pale purple with yellowish tips. It occurs in dry woods with basic soils in Columbia, Elbert, Franklin, and Stephens Counties. Also see the federally listed Alabama leather flower (*C. socialis*) on this web site.

**Habitat:** Coosa Valley flatwoods (shortleaf pine-blackjack oak-post oak woodlands with clayey soils over limestone or calcareous shale) and pine plantations and utility and highway rights-of-way in this habitat.

**Life History:** Little is known about the life history of Fremont's leather flower except that it is a perennial herb that reproduces sexually. Its flowers depend on insect pollinators, such as bees and butterflies, to effect cross-pollination in order to produce abundant seeds. The plume-like seed heads are dispersed by wind.

**Survey Recommendations:** Surveys are best conducted during flowering (April–May) and fruiting (May–July).

**Range:** Georgia, Kansas, Missouri, and Nebraska. Georgia's population is more than 400 miles from the nearest known site in southeastern Missouri.

**Threats:** Logging, clearing, or other mechanical soil disturbance. Overbrowsing by deer. Invasion by exotic pest plants. Encroachment by woody plants in the absence of fire or other natural disturbance.

**Georgia Conservation Status:** Only one population, with about 25 plants, is known; it occurs on lands owned by Berry College.

**Conservation and Management Recommendations:** Avoid logging and other mechanical disturbances. Use prescribed fire or hand-clearing to reduce competition from woody species. Protect plants from browsing by deer. Eradicate exotic pest plants. Develop conservation management plan.

## **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.

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

Kansas Wildflowers and Grasses. 2005. Fremont\*s clematis. http://www.lib.ksu.edu/wildflower/fremont.html

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

Ware, R.T., Sr. 2003. Rare plant re-located after 64 years. Georgia Botanical Society, BotSoc News 77(6): 1, 3.

Weakley, A.S. 2007. Flora of the Carolinas, Virginia, Georgia, and surrounding areas. University of North Carolina Herbarium, Chapel Hill.

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

## **Date Compiled or Updated:**

L. Chafin, June 2007: original account

K. Owers, Jan. 2010: updated status and ranks, added pictures



