

Common Name: GEORGIA ROCKCRESS

Scientific Name: Arabis georgiana Harper

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Brassicaceae/Cruciferae (mustard)

Rarity Ranks: G1/S1

State Legal Status: Threatened

Federal Legal Status: Candidate

Federal Wetland Status: none

Description: Perennial **herb** with unbranched **stems** up to 3 feet (90 cm) tall; upper stem smooth, lower stem hairy. **Basal leaves** 1½ - 3 inches (4 - 8 cm) long, widest above the middle, with toothed margins, bluntly pointed tips, and bases tapering to a leaf stalk. **Stem leaves** $\frac{3}{8}$ - 2 inches (1 - 5 cm) long, larger near the base of the stem, decreasing in size upward; slightly clasping, coarsely toothed, lightly hairy on the lower surface, with no leaf stalks. **Flowers** less than $\frac{3}{8}$ inch (1 cm) long, with 4 white petals, in a loosely branched cluster at the top of the stem. **Fruit** a very narrow, straight pod, 2 - 2 $\frac{3}{4}$ inches (5 - 7 cm) long, held erect, splitting lengthwise, with 20 - 30 brown, slightly winged seeds.

Similar Species: Canada rockcress (*Arabis canadensis*) usually lacks basal leaves, and its stem leaves are not clasping; its fruits are curved and drooping. Smooth rockcress (*A. laevigata*) has hairless, pale bluish-green stems and leaves; its fruits are curved and spreading or drooping, but not erect.

Related Rare Species: Missouri rockcress (*Arabis missouriensis*, Special Concern) has dark green (not pale bluish-green) stems, and narrow, toothed, overlapping stem leaves that do not clasp the stem. Its fruits are erect at first, then later arch outwards. It occurs on Piedmont granite outcrops.

Habitat: Shallow, basic or circumneutral, soils on rocky slopes above streams; thin woods on limestone or granite bluffs; hardwood forests on slopes above streams; sandy, recently eroded riverbanks. Often under red cedar, black oak, sugar maple, chestnut oak, and oakleaf hydrangea.

Life History: Georgia rockcress will persist in shady habitats but flowers and fruits best when exposed to sun for most of the day. It appears to depend exclusively on sexual reproduction and is probably not self-compatible since the female stigma in a given flower becomes receptive before that flower's pollen is released. Seeds have been observed to germinate in the fall and winter of the year they are produced. Georgia rockcress is not a strong competitor and grows where other plants are excluded by thin, rocky soils or recent soil erosion.

Survey Recommendations: Surveys are best conducted during fruiting (May–early July), when fruit length and orientation are apparent. Plants flower March–April.

Range: Twenty-eight sites are known in Georgia and Alabama.

Threats: Clearing and quarrying of rocky bluffs, hardwood slopes, and riverbanks; invasion by exotic pest plants such as Japanese honeysuckle (*Lonicera japonica*).

Georgia Conservation Status: Two populations occur on a private preserve and one on a military base; 4 are protected by conservation easement.

Conservation and Management Recommendations: Avoid logging or clearing on slopes and along streams. Eradicate exotic pest plant species such as Japanese honeysuckle (*Lonicera japonica*).

Selected References:

Al-Shehbaz, I.A. 1988b. The genera of Arabideae (Cruciferae; Brassicaceae) in the southeastern United States. Journal of the Arnold Arboretum 69(2): 85-166.

Al-Shehbaz, I.A. 2003. Transfer of most North American species of *Arabis* to *Boechera* (Brassicaceae). Novon 13: 381 - 391.

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

Harper, R.M. 1903. A new Arabis from Georgia. Torreya 3: 87-88.

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

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.

USFWS. 1995a. Status survey of *Arabis georgiana* (Georgia rockcress) in Georgia. U.S. Fish and Wildlife Service, Jackson, Mississippi.

USFWS. 2000. *Arabis georgiana* Harper: candidate and listing priority assignment form. U.S. Fish and Wildlife Service, Atlanta, Georgia. http://www.fws.gov/

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

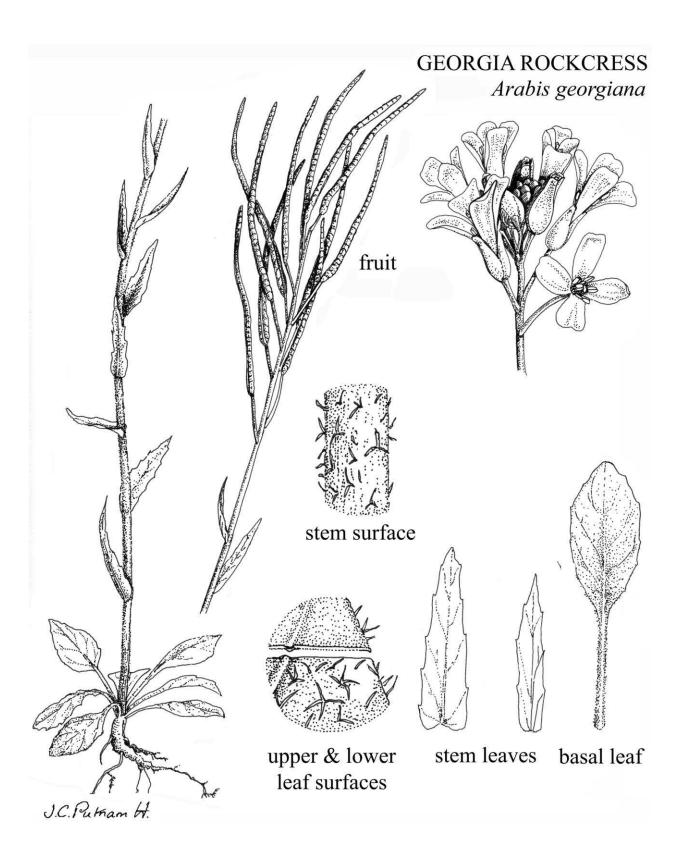
Author of species account: Linda G. Chafin

Date Compiled or Updated:

L. Chafin, Sept. 2007: original account

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

Z. Abouhamdan, April 2016: updated link





Inflorescence