



Common Name: LEAST GLADE-CRESS

Scientific Name: *Leavenworthia eximia* Rollins var. *eximia*

Other Commonly Used Names: Tennessee glade-cress, pasture glade-cress

Previously Used Scientific Names: none

Family: Brassicaceae/Cruciferae (mustard)

Rarity Ranks: G4T3/S2

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: none

Description: Annual **herb** germinating in the fall and overwintering as a **rosette** of leaves about 1 inch (1 - 3 cm) wide. Spring and summer **leaves** usually less than up to 2 inches (5 cm) long (including the leaf stalk), varying in shape from a single lobe at the end of the leaf stalk to many

segments or lobes paired along the stalk, with the end lobe always larger than the other segments. **Flowers** solitary at the top of a leafless stalk, opening only on sunny days. **Petals** 4, about $\frac{1}{4}$ - $\frac{3}{8}$ inch (0.6 - 1 cm) long, shallowly notched at the tip, white with a yellow base, very fragrant. **Fruit** a flattened, oblong pod, $\frac{3}{8}$ - $\frac{7}{8}$ inch long, with a short beak; the pod splits lengthwise into 2 curling sections, exposing a papery membrane that holds round, flat, winged seeds.

Similar and Related Rare Species: Twelve species and varieties of *Leavenworthia* are rare or endemic to cedar glades in the southeastern U.S. Glade-cress (*Leavenworthia uniflora*, Special Concern) occurs on Georgia's cedar glades. It resembles least glade-cress but its petals are pure white and rounded, not notched, at the tip. Leaf segments are toothed, and the terminal lobe is about the same size as the other segments.

Habitat: Limestone cedar glades with thin, gravelly soils.

Life History: Least glade-cress is an annual herb whose seeds germinate in the fall; new plants emerge during the fall and winter, with 8 - 16 leaves present by late December. Flower buds are also produced during the fall and winter, and the flower stalks begin to elongate in late February. Flowers open during March and April and set fruit by mid-May. By mid-June, seeds have dispersed, and lie on the soil until autumn rains stimulate germination. Least glade-cress flowers self-fertilize; *Leavenworthia* species have been extensively studied as examples of inbreeding.

Survey Recommendations: Surveys are best conducted during flowering (March–April). Plants are more visible on sunny afternoons when flowers are fully open.

Range: Georgia and Tennessee.

Threats: Conversion of cedar glades habitat to developments or pasture. Degradation of habitat by trash dumping, off-road-vehicle use, and excessive foot and horse travel. Invasion by exotic and woody species.

Georgia Conservation Status: Plants are known from approximately 24 cedar glades, 16 of which are on conservation lands.

Conservation and Management Recommendations: Protect limestone glades from trash dumping, off-road-vehicles, and conversion to pasture or development. Limit foot and horse traffic on glades. Control woody species with fire or hand-clearing.

Selected References:

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Date Compiled or Updated:

L. Chafin, Apr. 2007: original account

K. Owers, Feb. 2010: added pictures

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