



Common Name: WRETCHED SEDGE

Scientific Name: *Carex misera* Buckley

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Cyperaceae (sedge)

Rarity Ranks: G3/S1

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial, grass-like **herb** forming dense clumps. **Leaves** up to 16 inches (40 cm) long, very narrow, light green, hairy on the lower surface, with a softly hairy, purplish, basal sheath that encircles the stem; old sheaths form a mass of tan fibers on the stems. **Flowering stems** up to 20 inches (50 cm) long, arching down and outward, 3-angled with rough hairs on the angles and a purple base. **Female-flowered spikes** 2 - 3 per stem, up to 1 $\frac{3}{8}$ inches (3.5 cm) long, reddish-brown, held below the male-flowered spike on the same stem. **Male-flowered spikes** up to 1 inch (2.5 cm) long, reddish-brown, solitary at the top of the flowering stem. **Fruits** less than $\frac{1}{8}$ inch (.25 cm) long, oblong, 3-angled, pale brown, enclosed in an elongated, red-dotted sac (**perigynium**) with faint ribs and hairy tip. Magnification of 10x is needed to examine the spikes and fruits.

Similar Species: Wretched sedge resembles many other sedges but is distinguished by the hairy leaf sheaths, purple stem bases, reddish-brown spikes, and hairy fruit sac.

Related Rare Species: Nearly 40 species of *Carex* are protected or of Special Concern in Georgia. Detailed information about 7 of these *Carex* species is provided on this website: Baltzell's sedge (*C. baltzellii*), granite dome sedge (*C. biltmoreana*), velvet sedge (*C. dasycarpa*), impressed-nerve sedge (*C. impressinervia*), wretched sedge (*C. misera*), Radford's sedge (*C. radfordii*), and Roan Mountain sedge (*C. roanensis*).

Habitat: Seepy areas around rock ledges and outcrops at high elevations, with yellow birch, sugar maple, mountain laurel, and rhododendron.

Life History: Wretched sedge, like most sedges, is wind-pollinated. Nothing is known about seed dispersal for this species. Genetic studies have shown that wretched sedge, like many species with restricted habitats and ranges, has low genetic variability, underscoring the need to protect as many populations throughout the plant's range as possible.

Survey Recommendations: Surveys are best conducted during fruiting, June–August; mature fruits are important for identification. Plants flower May–June.

Range: About 25 populations are known in Georgia, North Carolina, and Tennessee.

Threats: Logging, clearing, and development in high elevation forests. Excessive recreational use by climbers and hikers of high elevation rock outcrops.

Georgia Conservation Status: Only one population is known; it occurs in the Chattahoochee National Forest.

Conservation and Management Recommendations: Protect high elevation forests from logging, clearing, and development. Direct trails away from rock outcrops.

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. 2003. Flora of North America. Vol. 23, Magnoliophyta: Commelinidae (in part), Cyperaceae (part 1). Oxford University Press, New York.

Godt, M.J.W., B.R. Johnson, and J.L. Hamrick. 1996. Genetic diversity and population size in four rare southern Appalachian plant species. *Conservation Biology* 10: 796-805.

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.

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.

Schell, C.M and M.J. Waterway. 1992. Allozyme variation and the genetic structure of populations of the rare sedge *Carex misera* (Cyperaceae). *Plant Species Biology* 7: 141-150.

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

Wiser, S.K. 1994. High-elevation cliffs and outcrops of the southern Appalachians: vascular plants and biogeography. *Castanea* 59: 85-116.

Wiser, S.K. 1996. High-elevation rock outcrop vegetation of the southern Appalachian mountains. *Journal of Vegetation Science* 7: 703-722.

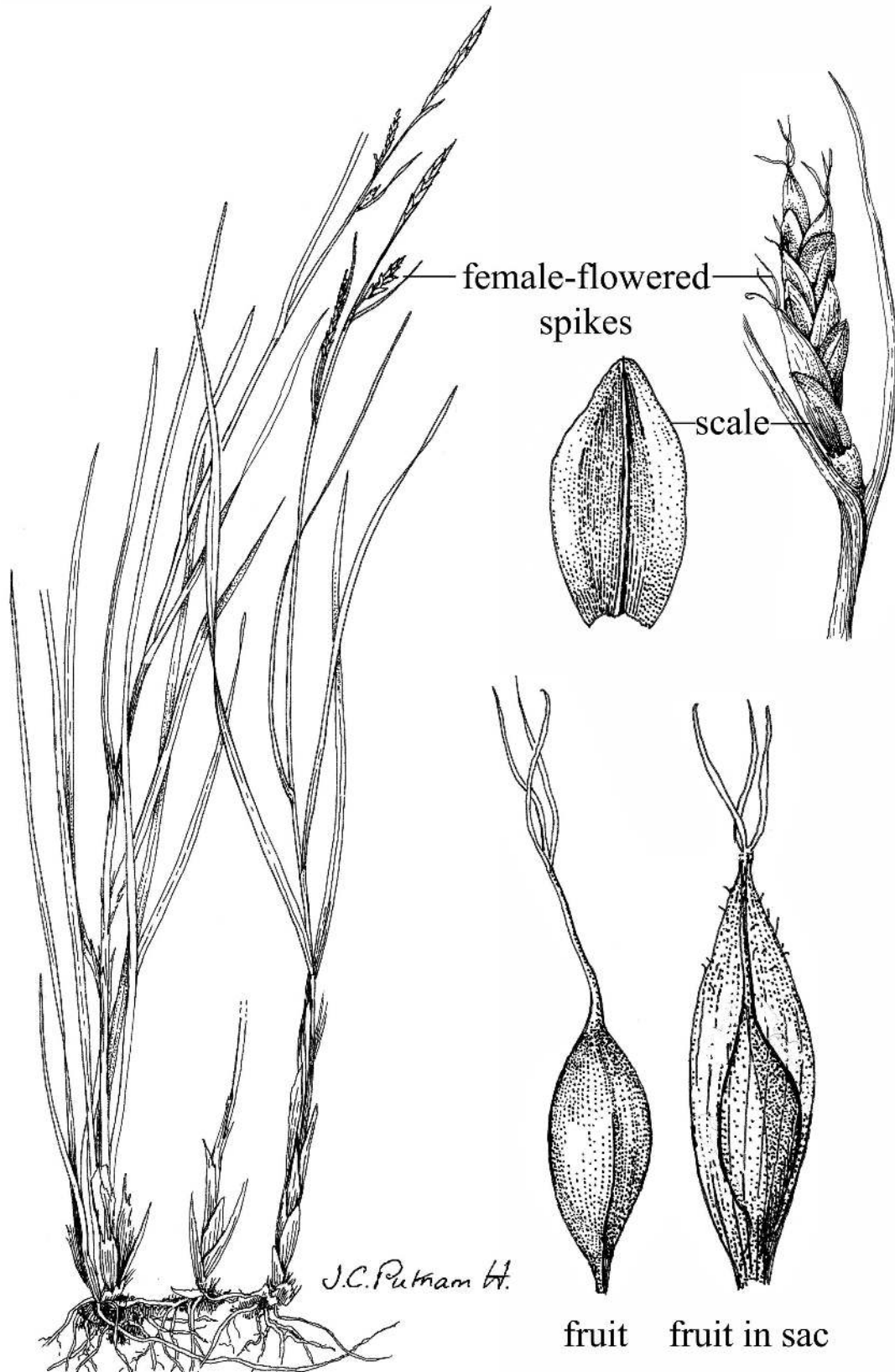
Author of species account: Linda G. Chafin

Date Compiled or Updated:

L. Chafin, Oct. 2007: original account

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

WRETCHED SEDGE - *Carex misera*





©Hugh and Carol Nourse
Staminate and pistillate spikes