



Common Name: RADFORD'S SEDGE

Scientific Name: *Carex radfordii* L.L. Gaddy

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Cyperaceae (sedge)

Rarity Ranks: G2/S1?

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: none

Description: Perennial, grass-like, robust **herb** forming dense clumps. **Flowering stems** 11 - 24 inches (28 - 61 cm) tall, erect, solid, triangular in cross-section, usually 1½ times longer than the basal leaves. **Leaf blades** 11 - 23 inches long, ¼ - ½ inch wide (28 - 59 cm long, 5 - 10 mm wide), mostly basal; blue-green with a whitish, waxy coating on the lower surface, smooth except for tiny teeth on the lower midvein; the lower part of the leaves is pale green with darker green stripes; a small, tan **sheath**, up to 1¼ inches (3.2 cm) long, partly encloses the bottom of the stem (it looks like a small, withered leaf). **Male flower spike** ½ - 1½ inch (1.2 - 4 cm) long, solitary, on a stalk up to 4⅓ inches (0.4 - 11 cm) long at the top of the plant. **Female flower spikes** up to 1¾ inch (1.4 - 4.5 cm) long, 3 - 5 spikes per stem, held below the male-flowered spike on the same stem; each female flower spike with 3 - 10 loosely overlapping fruits and scales; scales have a long, spike-like bristle between two transparent wings, which are variable in shape, often asymmetrical. **Fruit** body about ⅛ inch (1.2 - 2.8 mm) long, tightly enclosed in a 3-sided, strongly veined sac (**perigynium**). Magnification of 10x is needed to examine the spikes and fruits.

Similar Species: Several species of *Carex* (especially *C. laxiflora*, *C. manhartii*, *C. purpurifera*, and *C. striatula*) resemble Radford's sedge, which is distinguished by the combination of blue-green leaves with waxy undersides, green-striped leaf bases, tan sheath at the base of the stem, and the oddly shaped scales with very long bristle-tips on the female-flowered spikes.

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: Moist, rich hardwood forests with soils high in calcium and magnesium, along the Brevard Belt of metasedimentary rock that follows the Blue Ridge escarpment at the transition between the Blue Ridge and Piedmont.

Life History: Radford's sedge, like most sedges, is wind-pollinated. Nothing is known about seed dispersal or other aspects of reproduction for this species for this species.

Survey Recommendations: Surveys are best conducted during fruiting (late April–mid-June).

Range: Georgia, North Carolina, and South Carolina

Threats: Clearing, logging, and development of habitat; horse and off-road-vehicle traffic; exotic pests such as wild hogs and invasive plant species.

Georgia Conservation Status: One population is known in Georgia, it occurs in the Chattahoochee National Forest.

Conservation and Management Recommendations: Protect rich hardwood forests from development, logging, and clearing. Eradicate exotic pest plants and animals such as wild hogs. In the vicinity of the plants, limit recreation to foot travel only; exclude horses and motorized vehicles.

Selected References:

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Gaddy, L.L. 1995. *Carex radfordii* (Section *Laxiflorae*: Cyperaceae), a new species from the southern Appalachians. Novon 5: 59-261.

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

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, Oct. 2007: original account

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



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Leaf base with large ligule



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Striped leaf base



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Pistillate scale with wings and awn



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Tan and white striped sheath at base of culm