

## Vascular Plants of Williamson County

*Eleocharis geniculata* – ANNUAL SPIKESEDGE, CANADA SPIKESEDGE, BENT SPIKESEDGE,  
ANNUAL SPIKERUSH [Cyperaceae]

*Eleocharis geniculata* (L.) Roemer & Schult., ANNUAL SPIKESEDGE, CANADA SPIKESEDGE, BENT SPIKESEDGE, ANNUAL SPIKERUSH. Annual, submersed emergent aquatic, not rhizomatous, fibrous-rooted, densely tufted and cespitose, many–100+–stemmed, stems erect to ascending, in range inflorescences to 20 cm tall; shoots with prophyll and 1 basal leaf, glabrous, not glaucous; rhizomes absent; adventitious roots abundant, dense, often > shoot with inflorescences. **Stems (culms):** cylindric, ca. 0.6 mm diameter, solid. **Leaves:** alternate, = bladeless sheath; prophyll sheathing and closed, to 5 mm long, tip triangular < 1 mm long, purplish red below midpoint, concealing an axillary bud; sheath closed, to 11 mm long, free portion triangular t 1.5 mm long, papery, purple red beneath prophyll. **Inflorescence:** spikelet, solitary and terminal on stem (peduncle), emerging through leaf sheath via cell division (intercalary growth) at stem base, anthesis commencing several millimeters above sheath and progressing upward (acropetal) on spike as the spike rises further from roots, ovoid as forming new flowers at tip and abscising mature fruits and bractlets at base (in canopy), in range to 5.5 × 2.5 mm, 25–35-flowered, bracteate; bractlets (floral scales) helically alternate (2/5 phyllotaxy), highly condensed, and shinglelike, the lowest bractlet lacking a flower and at least the uppermost bractlet lacking flower, bractlet subtending a sessile flower, glabrous; peduncle = shoot length, green, with minute stomates in vertical rows; bract subtending spikelet lacking; bractlet of fertile flower appressed, cupped-obovate, ca. 1.5 × 1 mm, colorless below midpoint and brownish above midpoint, with wide, paler midvein on rounded rounded back, obtuse to roundish at tip, abscised truncate leaving a semicircular, winglike ledge on rachis. **Flower:** bisexual, ± radial, sessile, mostly concealed by bractlet; **perianth** of (4–)7(–8) bristles fused in ring at base, unequal, ascending, 0.6–1.1 mm long some > fruit, the shortest median on outer face, translucent drying whitish, with downward-pointing barbs (retorse), lacking hook at tip, persistent in fruit; **stamens** 3, free, included; filaments ca. 1.5 mm long, translucent; anthers basifixed, dithecal, 0.35–0.5 mm long, pale yellow, lacking appendage at tip, longitudinally dehiscent; pollen yellowish; **pistil** 1; ovary superior, biconvex obovoid compressed front-to-back, 0.35–0.4 × 0.25–0.3 mm increasing 2× in fruit, greenish, 1-chambered with 1 ovule; style ± 1.7 mm long, ringlike at base 0.1 × 0.2 mm, light green, 2-branched at midpoint, with constriction above ovary aging as a tubercle, stalk colorless and lacking papillae, the stigmatic branches papillate, mostly exerted and widely spreading from tip of bractlet. **Fruit:** achene having persistent tubercle (stylar) at top, 1-seeded, fruit body biconvex obovoid, ± 0.8 × 0.6 mm, glossy black, outer face more domed than inner face, not pitted but cell margins visible; tubercle beret-like, ca. 0.25–0.3 mm across, brownish, with rim.

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