

Vascular Plants of Williamson County
Juncus dichotomus – FORKED RUSH [Juncaceae]

Juncus dichotomus Elliott, FORKED RUSH. Aquatic perennial herb, rhizomatous, exposed stem (culm) photosynthetic, not rosetted, many-stemmed at base densely tufted and cespitose, vegetative and reproductive shoots ascending to suberect, in range to 60 cm tall; shoots with only basal leaves but appearing to have 1–3 “cauline” leaves with sheaths attached next to rhizome, foliage leaves to 6, glabrous; rhizome dense and creeping with erect portion for each tuft of shoots, internodes ca. 0.6 mm long, scales (cataphylls) open, to 7 mm long, cupped and not keeled, prophyll subtending each shoot triangular flattened and strongly folded with wide margins, aging brown, acute to obtuse at tip; adventitious roots nodal on rhizome from bases of buds. **Stems (culms):** 3-sided, ca. 1 mm diameter, lower portion (concealed by leaf sheaths) white, upper portion green, upper portion ± tough; solid. **Leaves:** alternate tristichous, simple with sheath; sheath open, of the uppermost leaf to 100 mm long, with several ridges on outer (lower) surface, often split on back by enlarging bud from rhizome, membranous on margins especially conspicuous approaching top, margins forming a terminal pair of semicircular, earlike projections (auricles) 0.3–0.55 mm long, ligule lacking; blade channeled and troughlike having rimlike edges, narrow and linear, the lower leaves (flattened) to $150 \times < 2$ mm, the longest “cauline leaf” to 270 mm long, entire, parallel-veined with several veins somewhat raised on lower surface, upper surface lacking stomates. **Inflorescence:** cymelike and compound, terminal, repeatedly branched with only 1 bisexual flower at each fork, flowers essentially sessile, bracteate, glabrous; inflorescence bract subtending principal axis, ascending, leaflike and > inflorescence, sheath open, to 9.5 mm long + auricles, blade flat, to 160×1 mm, bracts subtending successive branchlets decreasing upward with shorter and suberect blades and shorter sheaths; prophyll at the base of each branch axis, somewhat hidden by bract sheath, at the first node membranous and 2-keeled nearly to tip, the long 4–5 mm long, keels green nearly to truncate or shallowly notched tip; bract at each subsequent node decreasing upward lost of blade, auricles, and sheath features, the upper bracts and bractlet subtending flower acuminate-lanceolate, prophylls decreasing upward for shorter axis internodes becoming short, no keels, and simple tips; bracteoles subtending flower 2, alternate distichous, sheathing and appressed, 1.3–1.5 mm long, the lower bracteole often minutely notched at tip, the upper bracteole acute at tip, membranous aging scarious and persistent. **Flower:** bisexual, radial, ca. 6 mm across; **tepals** 6 in 2 series, at anthesis ± monomorphic, widely spreading, acuminate-lanceolate, at anthesis $3\text{--}3.5 \times 1$ mm, **sepals** (outer tepals) > **petals** (inner tepals) and in fruit, green with colorless margins and tip, 3-veined (sepals) and 1-veined (petals), in fruit tannish and scarious ca. 4.5–5 mm long (sepals) and 3.5–4 mm (petals); **stamens** 6, free; filaments 0.6–0.8(–1.1) mm long, translucent; anthers basifixed, dithecal, ca. 0.7 mm long, light yellowish green, longitudinally dehiscent; pollen yellowish; **pistil** 1; ovary superior, ovoid, ca. 1×0.8 mm, light green, 1-chambered to falsely 3-chambered, with many ovules; style 3-branched, lower portion erect, ca. 0.2 mm long, translucent, the stigmatic branches helically twisted with colorless papillae and a rose axis, twisted ca. 1 mm long and ca. 2 mm long elongated. **Fruit:** capsule, dehiscent by 3-valved to midfruit, many-seeded, broadly ellipsoid, in range $2.5\text{--}3.5 \times 1.6\text{--}2.2$ mm, < inner

tepals (petals), glossy light brown, persistent on inflorescence and within perianth. **Seed:** ellipsoid, 0.3–0.4 mm long, amber with reddish or brown ends, not tailed.
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