Juncus patens E. Meyer, SPREADING RUSH. Perennial herb, evergreen, rhizomatous, fibrous-rooted, cespitose (tufted) with many erect shoots from creeping rhizomes, 65-110 cm tall; shoots with long photosynthetic stems each with 2-4 basal leaves $\pm$ lacking blades (cataphylls), glabrous; rhizomes horizontal 20-50 mm belowground, 4-8 mm diameter, with regularly and closely spaced shoots, having persistent scales, the scales acuminatetriangular, 4-10 mm long, brown to blackish red, when older splitting into fibers. Stems
(culms): cylindric to elliptic in $\times$-section at base to cylindric below inflorescence, 1.5-2.7 mm diameter, tough, green, finely striped with narrow, dark green ridges and broader pale green, stomate-speckled furrows (very dark red to blackish red at base); core white.
Leaves (cataphylls): alternate tristichous, each essentially only a sheath; sheath open, $10-130 \mathrm{~mm}$ long (the shortest at base), fibrous with narrow, scarious margins and symmetric tip, the upper sheath initially green becoming tan approaching tip and dark purplish red to very dark red below with base of sheath very dark red to blackish red, parallel-veined; blade absent or reduced to narrow, tail-like tip (caudate) $0.5-3 \mathrm{~mm}$ long.
Inflorescence: panicle of $2-7 \pm$ umbel-like primary branches (primary rays), terminal but appearing lateral because subtended by 2 alternate distichous bracts (inflorescence bract + prophyll on upper side) with the longer bract appearing like a continuation of the stem, panicle $17-50 \mathrm{~mm}$ long, $\pm$ dichotomously branched to congested and appearing 3 -forked or more, ultimate branches with cluster of 3-5 flowers, bracteate, glabrous; lower inflorescence bract erect, cylindric and fully closed, 55-220 mm long, >> inflorescence, having inflorescence arising through a lens-shaped gap at base, tapered to point; prophyll truncate or 2-toothed at tip, < 3 mm long, 2-veined; inflorescence bract subtending each primary ray or secondary ray 2 (bract + prophyll), inflorescence bract $\pm$ lanceolate, < 3 mm long, brown and glossy at base or higher and light tan or pale yellow above, commonly 3-veined, often with midvein extended as a short awn or 1-veined with tail-like tip (caudate), prophyll rounded to truncate or 2-toothed at tip, 2-veined; primary ray axis $0.5-23 \mathrm{~mm}$ long, green; bracts subtending ultimate branchlets 2 , alternate distichous, $\pm$ sheathing and appressed to rachis, lanceolate, $1.3-2.5 \mathrm{~mm}$ long, 1 -veined; bractlets (bracteoles) subtending pedicel 2, ovate-deltate, $0.9-1.2 \times 0.7 \mathrm{~mm}$, translucent; pedicel $0.3-0.5 \mathrm{~mm}$ long. Flower: bisexual, radial, $<1.5 \mathrm{~mm}$ across, closed (cleistogamous); tepals 6 in 2 similar whorls, erect, acuminate-lanceolate, $2.3-3.3 \times 0.6-0.8 \mathrm{~mm}$, outer tepals > inner tepals, green with whitish margins, 1 -veined, persistent; stamens 6 , free, opposite tepals, included; filaments $0.6-0.7 \mathrm{~mm}$ long, pale green becoming reddish brown from base upward; anthers basifixed, dithecal, $0.3-0.5 \mathrm{~mm}$ long, light yellow, longitudinally dehiscent; pollen light yellow; pistil 1, 1.5-2 mm long; ovary superior, 3lobed ellipsoid, 1-1.3 $\times 0.6-1 \mathrm{~mm}$, greenish, 3-chambered, each chamber with 25-30 ovules; style 3-branched, basal portion ca. 0.2 mm long, the stigmatic branches included, initially corkscrewlike with 2+ coils, ca. 1 mm long when uncoiled, brownish or strawberry red. Fruit: capsule, loculicidal, dehiscent by 3-valves, often 17-35-seeded, ovoid, $2-2.9 \times 1.6-2 \mathrm{~mm}, \pm 3$-sided, narrowly pointed at tip, valves veined on face and ribbed on sutures especially near tip. Seed: $\pm$ lanceoloid to ellipsoid, $0.6-0.7 \times 0.3 \mathrm{~mm}$, orangey brown to dark orange-yellow, smooth to slightly wrinkled. Late April-late June.

Native. Perennial herb growing as colonies in seasonally moist, open hillsides at low elevations (SMM). Juncus patens has densely clumped shoots, which are dark green, and bladeless leaves (cataphylls), and the inflorescence appears to be distinctly lateral with an erect inflorescence bract. The inflorescence is difficult to study where congested, and careful dissection is required to observe that there are two bracts for each axis. For the principal axis, one can see that the two bracts are different, with the upper bract of a pair being a two-veined prophyll, whereas the two bractlets subtending a pedicel show no distinction between on the lower and upper side of the axis.
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