

Vascular Plants of Williamson County

Equisetum laevigatum – SMOOTH SCOURING RUSH [Equisetaceae]

Equisetum laevigatum A. Braun, SMOOTH SCOURING RUSH. Perennial herb, clonal, with photosynthetic stems lasting < 1 year (sometimes overwintering), rhizomatous, fibrous-rooted, 1–several-stemmed at base, stems jointed, unbranched (elsewhere with whorled ascending branches at particular nodes, sometimes also at ground level), erect to ascending, in range 30–70 cm tall; shoots without foliage, each green stems potentially with a terminal, spore-producing cone (strobilus); rhizomes horizontal and ascending, 2–3 mm wide, blackish. **Stems:** with 14–23 low ridges, principal stems 2–4.5 mm diameter at base, straight, tough, slightly constricted at nodes, each segment green initially lacking a black band on lower internode underneath sheath of older stem segment (sometimes present on 1–several of the lowermost nodes), internodes hollow, typically 14–60+ mm long, somewhat scabrous due to silica projections (transverse ridges) in cell walls, with 2 longitudinal lines of sunken stomates within each stem valley; mature wall thin, in \times -section with a ring of canals beneath each rib; lateral branches not observed, elsewhere whorled but not symmetrically so, 6–8-ridged, 30–120+ \times 1.2–1.8 mm, ridges appearing short-toothed with abrasive projections. **Leaves:** as many as stem ridges, whorled and fused forming sheath around node with scalelike free portions; sheath narrowly vase-shaped, mostly 8–12 mm long, length > diameter, green with pale margin at tip bordering zigzagged black band of upper sheath and lobes, the pale margin aging somewhat gray to whitish; free portions of leaves flat and long-tapered, 0.6–0.8 mm wide, with dark black axis fading to unpigmented, 1-veined, soon dead and often shedding tips becoming a dark, truncate rim with lobes curved inward, especially at lower nodes tip and adjacent sheath forming a single black band 1–6 mm long; free portions of leaf on lateral branches acuminate, 2–5 \times 0.6–0.8 mm, dark brown-black with papery margins approaching tip, often persistent. **Cone (strobilus):** terminal, narrowly ellipsoid or oblong-ellipsoid with short tip, (10–)14–15 \times 4–5 mm (much smaller on slender lateral branches), of whorled, stalked, umbrellalike (peltate) scales (sporangiphores); stalk of cone to 5 mm long, somewhat exserted from sheath, yellowish, with sterile, cuplike collar at the lowest node (annulus), the annulus 1.5 \times 4 mm, with \pm 8 short teeth, internode to first whorl of sporangiphores 1–1.5 mm long; whorls \pm 7 typically with 7–8 sporangiphores per whorl; scale surface of sporangiphore polygonal and typically 6-sided, yellow ochre with a deep purple to black depressed center, aging brown and black, each peltate scale bearing 6 inward-pointing sporangia on concealed surface. **Sporangia:** sausage-shaped, \pm 1 mm long, light green. **Spores:** spheric, light green, wrapped with 4 straplike, hygroscopic appendages with expanded ends (elaters).

A. C. Gibson

Note: The horsetail specimen was collected from a small population growing in full sun along Saledo Creek near the center of Salado (Bell County), mid-August, 2019. That locality is several kilometers north of the Williamson County line, but the upper portion of Saledo Creek flows through northern Williamson County, and therefore *Equisetum laevigatum* likely occurs within the county.