

Vascular Plants of Williamson County

Schoenocaulon texanum – TEXAS SABADILLA [Melanthiaceae]

Schoenocaulon texanum Scheele, TEXAS SABADILLA. Perennial herb, geophytic, clonal, bulb-bearing and rhizomatous, fibrous-rooted, rosetted with several basal rosettes, scapose, inflorescence spreading to ascending, in range to 55 cm tall (inflorescence at anthesis drooping); shoots each with 5–8 basal leaves and lacking cauline leaves, basal leaves lax, present during flowering but the oldest blades dying from tip downward, glabrous; bulb to 14 cm deep, above bulb cylindrical of old leaves (neck of tunic) 55–80 × 6–8 mm diameter, dark brown. **Stem (peduncle):** white belowground, hollow below flower node. **Leaves:** alternate distichous, simple and sheathing (including belowground portion); sheath closed, 40+ mm long, colorless with some of the parallel veins green to pale green, cylindrical portion ca. 6 mm diameter, becoming open before emerging from ground; throat with membranous margins and strongly folded along midrib, membranous margins absent aboveground; blade ribbonlike and often gently twisted, belowground to 40 mm long, aboveground (150–)300–1000 × (1.3–)2.4–7 mm, entire to minutely toothed on margins, parallel-veined with midrib sunken on upper surface and raised on lower surface, not glaucous. **Inflorescence:** raceme, on peduncle (scape), many-flowered with functionally staminate flowers at tip (diminutive pistils; terminal flowers sometimes vestigial), formed on the side of the tunic from the axillary bud of a leaf from the previous year (appearing lateral and outside the green leaves of the current year), flowers helically alternate (2/5 phyllotaxis) initially densely packed and lanceoid without noticeable internodes becoming cylindrical with internodes mostly 2–5 mm long (to 17 mm long at base of raceme), while flowering < 150 × 12–15 mm, bracteate, glabrous; peduncle from bulb < 260–520 mm long, white at base, hemi-cylindrical, 3 mm diameter, and green to purplish red-tinged aboveground becoming 3-sided approaching raceme, tough, gently twisted 90–360° to above midpoint, slightly glaucous, hollow below the lowest flower; bractlet subtending pedicel appressed around flower bud and half-sheathing, broadly triangular and cupped, to 5.5 mm long, to 3 mm wide, truncate and lobed, and clasping at base, the lowermost bractlets keeled and others rounded on back, acute to acuminate or tail-like (caudate) at tip, purple-red with wide-flaring white membranous margins (especially below midpoint), margins somewhat jagged, shriveled but persistent in fruit; pedicels ridged with decurrent bases of tepals, 1–1.3 mm long not increasing in fruit; rachis in fruit many-ridged. **Flower:** bisexual or staminate (vestigial), radial, bell-shaped, to 5 mm across; **tepals** 6, fused only at base, monomorphic, ascending and fingerlike with a pair of short, winglike bases, 2.6–3 × 0.4–0.5 mm, dark green above and lighter green below but sometimes purplish and rounded at tip, somewhat glaucous to midpoint, bases touching and oblong (containing nectar) and decurrent along pedicel, upper portion shell-like and cupped around anther; **stamens** 6 in 2 whorls, free; filaments cylindrical, 4.5–5 × 0.3–0.35 mm, outer whorl shorter and longer filaments opposite ovary furrows, white, glabrous; anthers basifixed and appearing versatile, dithecal, 1.1–1.3 mm long, arrow-shaped at base, light yellow blushed rose to light apricot, longitudinally and sideways dehiscent; pollen bright yellow; **nectary** producing copious nectary at base of ovary; **pistil** 1; ovary superior, narrowly ovoid, 1.5–1.7 × ± 1 mm, 3-chambered with chambers weakly coherent along inner edges, each chamber with ca. 10 ovules; style short-triangular becoming elongate and acuminate in fruit. **Fruit:** capsule septicial, dehiscent by 3 valves from tip downward,

with 0–2+ seeds per chamber, ovoid, 9–12 × 4–4.5 mm, glaucous and green maturing brown before weathering; pedicel to 4 mm long. **Seed:** ovoid to conic compressed by adjacent seeds, to 6 × 2 mm, tannish.

A. C. Gibson