

Vascular Plants of Williamson County

Chilopsis linearis subsp. *linearis*— DESERT WILLOW [Bignoniaceae]

Chilopsis linearis (Cav.) Sweet subsp. *linearis*, DESERT WILLOW. Shrub, winter-deciduous, in range observed < 2 m tall (cultivated small trees < 5 m tall); shoots with only cauline leaves, foliage slender and willowlike (*Salix*), gland-dotted especially glistening on lower surfaces of foliage with the glandular hairs tack-shaped often sunken in shallow pits.

Stems: cylindric, puberulent and short-hairy, with projecting leaf bases on woody twigs having young periderm and scattered, whitish, lens-shaped lenticels; bark cracked, gray or gray with brownish tissue. **Leaves:** alternate, helically arranged but often paired on 1 side of stem (never opposite decussate, pairs of leaves never 180° apart), simple, short-petiolate without pulvinus, without stipules; petiole somewhat cylindric (not channeled) often somewhat twisted at base of blade, < 2 mm long, whitish, often puberulent; blade linear, in range 45–115 × 2–4(–6) mm the widest at midblade, long-tapered at base, entire and appearing short-ciliate on margins, long-tapered and acuminate at tip, inconspicuously pinnately veined with the midrib raised on lower surface, having glandular hairs in shallow pits, veins not ending at margins. **Inflorescence:** panicle of lateral cymes, terminal on ± leafless peduncle, racemelike and closed having short and somewhat appressed lateral cymes, mostly and alternate and 1 per node, often 20+-flowered, the lateral axes of cymes < 20 mm long, lateral cyme sometimes dichasial with 1–3 flowers, flowers horizontal to somewhat twisted, bracteate, puberulent and with tack-shaped glandular hairs; peduncle 100+ long, light tannish green, with several, spaced, helically alternate bracts subtending aborted lateral cymes, with a ridge decumbent on internode from bract, bracts early-abscised, upper portion puberulent and also with glandular hairs; bracts and bractlets subtending cyme axes, oblanceolate or linear (lanceolate) often acuminate at tip and cupped, to 6 × 3 mm (flattened), green, deciduous. **Flower:** bisexual, bilateral, in range ca. 25 mm across, to 55 mm long (flattened); **calyx** 5-toothed but before anthesis splitting downward mostly forming 2 unequal segments by expansion of corolla; in bud calyx obovoid in range 11–13 × 6–7 mm, whitish to greenish or blushed with pigment, asymmetric at base, having 5 inconspicuous, slender teeth at tip < 1 mm long entangled by short hairs, outer surface with many parallel veins (low-ribbed) and short-hairy, inner surface soft-hairy with nonglandular and glandular hairs, aging brown and persistent; **corolla** 2-lipped, 5-lobed, lower lip with lobes projecting forward and upper lip with lobes bent backward, easily wilted; tube to 3 mm long and orifice elliptic, in bud light yellowish green with dimples aging white and nearly cylindric, outer surface with several inconspicuous stalked glandular hairs (bud) later lacking hairs, inner surface initially with densely packed tack-shaped glandular hairs partially hiding decurrent bases of filaments (ribs); throat funnel-shaped (indistinct from tube) but on lower side with a pair of longitudinal valleys defining a central hump, tube + throat in range 30–35 mm long and 17–20 mm wide at orifice, mostly pale light pink-purple faintly striped with darker veins but lower side mostly white with valleys change to light yellow approaching top, outer surface lacking nonglandular hairs but especially above midpoint having scattered, translucent, tack-shaped glandular hairs, inner surface floor with 15+ red-purple parallel veins (nectar lines) having patches of hairs 1–3 mm long along valleys and hump; upper lip 2-lobed with triangular sinus (notch) at midpoint, lobes length < width, wavy and crinkled, to 7 × 12 mm, light pink-purple (dark rose in bud), with glandular hairs on lower surface;

lower lip 3-lobed, similar to lobes of upper lip but larger, mostly 8–13 × 12–18 mm, each having a large blotch of intense red-purple tissue next to throat; **stamens** 4 fertile and 1 staminode (central), unequal, included; fertile stamens arising at base of corolla with free portion arising from top of corolla tube, filaments curved and crooked in bud at anthesis filament straight, cylindrical somewhat compressed, of outer filaments ca. 19 mm long, of inner filaments ca. 14 mm long, to 0.3 mm diameter, white (in bud greenish at base), glabrous; anthers in bud distinctly dithecal with pendent unequal sacs (appearing basifixed, connective diminutive), at anthesis sacs vertical and oriented 180°, sacs ca. 3 mm long (upward-pointing) and 2.5 mm long (downward-pointing), notched at tips and bases, white, longitudinally dehiscent with sac margins inrolling to outer side; pollen white; staminode with diminutive anther tissue (translucent), fused to corolla at same level as fertile stamens, free portion tapered to top, 7–8 mm long, white, glabrous; **nectary disc** surrounding base of ovary, weakly 5-lobed, ca. 0.3 mm long, whitish, producing copious nectar; **pistil** 1, included; ovary superior, cylindrical, ca. 2.5 × 1 mm, pale green, glabrous, 2-chambered, each chamber with many ovules attached in 2 rows to center; style cylindrical at base to flattened at top, ± 26 × 0.7–0.8 mm, white, 2-branched, short-hairy to midpoint and glabrous above midpoint, the branches divergent for pollination later appressed trapping pollen, flat and elliptic, ± 4 × 1.5 mm. **Fruit:** capsule, loculicidal, projecting to somewhat pendent, 2-valved, many-seeded, overall cylindrical and low-ribbed, mostly 150–200 × 5–6 mm, brown at maturity, long-tapered to tip, the ribs ca. 10 on thicker portion below midfruit, appearing glabrous but sparsely puberulent at tip (= stylar tissue), dry septum; with nectary disc at base. **Seed:** oval to oblong-elliptic and strongly flattened, 5–7 × 2–2.5 mm, light brown, 2-lobed having seed chambers with densely long-ciliate on margins having a tuft of parallel, tannish hairs 6+ mm long at each end.

A. C. Gibson