Vascular Plants of Williamson County Senna roemeriana – TWOLEAF SENNA [Fabaceae]

Senna roemeriana (Scheele) H. S. Irwin & Barneby, TWOLEAF SENNA. Perennial herb, thick-rooted, 1-several-stemmed at base, with spreading to ascending principal shoots, in range 20-50 cm tall; shoots with only cauline leaves, foliage and inflorescence strigose and short-strigose, flowering canopy \pm foul-smelling produced from inconspicuous, yellowish, fleshy hairs on axes and in axils. Stems: initially angled and weakly ridged aging with subtly flattened faces, straight, aging brownish (orange + green), internodes 10–30 mm long, puberulent and short-hairy with hairs arching upward. Leaves: helically alternate, even-2-foliolate and between leaflets initially having an ascending, stalked, lanceolate, orange-yellow gland ca. 1 mm long, petiolate with pulvinus, with stipules; stipules 2, attached to stem at base of petiole, linear, $6-9.5 \times 0.3-0.4$ mm, short-hairy with mostly appressed hairs; petiole channeled above pulvinus, 4–26 mm long, with pulvinus initially hidden beneath pubescence, 1–1.5 mm long, axis gravish green and short-hairy; stipel subtending leaflet absent; petiolule = pulvinus < 1 mm long; blades of leaflets asymmetrically narrowly lanceolate and straight to somewhat sickle-shaped (falcate), $25-60 \times 5-14$ mm, with midrib closer to margins of facing leaflets, oblique-rounded at base, entire, acute at tip, pinnately veined with the midrib prominent and raised on lower surface base-to-tip. with somewhat appressed, upward-pointing hairs, glaucous, lower surface paler. Inflorescence: raceme, axillary, ascending, (2-)3-5-flowered, axis at anthesis < 45 mm long, flowers helically alternate, bracteate, mixed strigose, short-hairy, and puberulent, axes also initially having scattered yellowish glandular hairs; peduncle stemlike, 20–25 mm long increasing in fruit; bractlet subtending pedicel linear, to 9 mm long, short-hairy with upward-pointing hairs, deciduous; pedicel at anthesis 8–12 mm long increasing to 17 mm long in fruit. Flower: bisexual, ± radial, ca. 25 mm across; nectary nectar-producing receptacle below ovary, cup-shaped, 1×2 mm, receptacle green and \pm short-strigose on outer side; sepals 5, subequal, with 1 outside of others, elliptic, $5-5.5 \times$ 3-3.5 mm, broad at base, yellow-green or with wide yellow margins, short-ciliate on margins, obtuse to rounded at tip, lower surface strigose and short-strigose, abscised only after fruit begins to grow; **petals** 5, cupped, short-clawed, ± subequal with banner somewhat wider, bright yellow aging with more orange and having reddish veins, claws 1–1.3 mm long; limbs obovate, ca. 14×6.5 –8 mm, tapered at base, pinnately veined, glabrous; stamens 10, free, heteromorphic, 7 fertile stamens and 3 sterile staminodes; staminodes on upper side appearing fused at base, paddlelike with upper portion flattened front-to-back, lateral staminodes ca. 2.5 mm long and center staminode 2 mm long, yellow, staminode anthers absent; fertile stamens ± monomorphic with filaments of different lengths exserted and slightly arching upward, 2 on each side of ovary, 2 lateral on lower side, and 3 on lower side; filaments 2–4.5 mm long, yellow aging orange-yellow; anthers basifixed, dithecal, curved upward, 2–3 mm long, orange-brown, dehiscing by lateral pore at top of each anther sac with pores toward stigma, pores 0.25–0.3 mm diameter; pollen pale orange; pistil 1, short-stalked (stipe), pubescent at base; ovary superior, oblongcvlindric not compressed side-to-side, 2×1 mm, green, densely sericeous, 1-chambered with to 12 ovules attached on upper side; style ca. 2.5 mm long, yellow, with minute terminal stigma. Fruit: legume (pod), dry, spreading, dehiscent, to 12-seeded, mostly

straight, oblong not compressed side-to-side, in range ca. $26-32 \times 5 \times 5$ mm, orangebrown, with prominent ridge on top and bottom, valves somewhat short-hairy with hairs arching upward and scattered puberulent hairs; stalk below pod (stipe) 1–1.4 mm long, somewhat orange before drying. **Seed:** ± pear-shaped flattish on 1 face, $4.5-5 \times 4.5-5 \times 1.8-2.4$ mm, thick-walled and hard, glossy brown, having an elaborate system of low ridges (verrucose), with nob having lateral hilum. A. C. Gibson