

## Vascular Plants of Williamson County

### *Smilax bona-nox* – SAW GREENBRIAR, SMALL GREENBRIER [Smilacaceae]

*Smilax bona-nox* L., SAW GREENBRIAR, SMALL GREENBRIER. Liana, spinescent, tendrillar, forming a self-supporting thicket or climbing on adjacent woody vegetation (shrubs and small trees); dioecious; shoots with only cauline leaves on tough stems, foliage shapes highly variable in populations and often leathery at maturity, with prickles on blade margins and often along principal veins on lower surface, leaves not abscising neatly, green or when young conspicuously bronze or reddish mottled with pale green to whitish patches, glabrous; adventitious roots at nodes belowground. **Stems:** strongly angled and 4-sided, to 10 mm diameter, 2-ridged descending from each leaf, mostly conspicuously zigzagged, internode to 100 mm long, tough, on young stems minutely speckled often reddish on exposed sides, with stiff, sharp prickles (0)1–12 per internode and sometimes 1–2 close to node, the prickles along stem angles, broad-based flattened side-to-side, to 6 mm long. **Leaves:** alternate distichous, simple, petiolate, with tendrils, with stipules; prophyll closed, appressed to lower internode, 2–5 mm long, acute with minute hook at tip; stipules 2 = wings on petiole to base of a pair of tendrils, membranous wings elevated often touching, narrow, 1–7 mm long, minutely jagged on margin; tendrils paired arising on upper side of petiole widely divergent on edges of stipules, unbranched, to 80 × 0.7–0.8 mm; lower petiole mostly without prickles, upper petiole V-channeled, 2–5 mm long, with 0–3 prickles on lower side; blade of the earliest lower leaves ca. 3/4 sheathing and lacking blade folded somewhat upward from midrib, to 12 mm long; triangular-broadly ovate or arrow-shaped with equal basal lobes (shallow sinuses) or deltate to inverted heart-shaped or fiddle-shaped, < 30–95 × 25–100 mm, solid green or green with patches of light green, sometimes bronze, brown, to reddish and often mottled, when present basal lobes rounded, usually spinose on colorless margins with points to 1.5 mm long, acute at tip, midrib or principal veins slight raised on lower surface without or with prickles. **Inflorescences:** umbel-like, unisexual, axillary at several successive nodes, hemispheroid 13–16(–25) mm across with < 25–34-flowered (staminate) and 5–20-flowered and often not fully hemispheroid (pistillate), rarely with a solitary staminate flower above midpoint on peduncle; peduncle 20–30 × 0.6–0.85 mm, compressed lower to upper side and somewhat channeled on lower side, especially slender on pistillate inflorescence; bractlet subtending pedicel sheathing and fringing, low at axil and the longest on lower side of pedicel, the long lobe ca. 1 mm long, often reddish; pedicel cylindric, at anthesis 4–6(–9.5) mm long increasing somewhat in fruit (pistillate), yellow-green, glabrous and somewhat glaucous, especially of pistillate flowers with bulbous pulvinus at base. **Staminate flower:** radial, 5.5–7.5 mm across, in bud surface sometimes appearing somewhat lobed; **perianth** 6 tepals in 1 whorl, monomorphic, widely spreading, oblong to oblanceolate-elliptic, 3.2–5.5 × 0.7–1 mm, yellow-green, inconspicuously 1-veined, slightly hooded with papillate hairs at tip; **stamens** 6 in 2 whorls, opposite tepals, free; filaments 1.5–1.9 mm long (outer stamens) and 2.4 mm long (inner stamens), greenish; anthers basifixed, monothechal, 1.8–2.3 mm long, cream-colored (sac) initially glossy, rounded at top, inwardly longitudinally dehiscent; pollen cream-colored; **pistil** absent. **Pistillate flower:** radial, 5.5–6.5 mm across, in bud surface appearing somewhat lobed; **perianth** (5–)6 tepals in 1 whorl (if 5 often = 2 fused

tepals), monomorphic, widely spreading, oblong to oblanceolate-elliptic or narrowly obovate,  $3.2\text{--}5.5 \times 0.8\text{--}1.1$  mm, yellow-green, inconspicuously 1-veined, slightly hooded with papillate hairs at tip; **nectaries** at bases of tepals and filaments inconspicuous, each producing minute drop of nectar; **stamens** (5–)6 staminodes opposite tepals, ascending, = vestigial filament, to  $0.8 \times 0.15$  mm, colorless or greenish; **pistil** 1; ovary superior, obovoid to ellipsoid,  $1.6\text{--}2.5 \times 1\text{--}1.3$  mm, yellow-green somewhat glossy, glabrous, 1-chambered with 1 elongate ovule filling chamber surrounded by thick wall; style slightly off-center, bent sharply near base with tongue-shaped stigma,  $\pm 1.5 \times 0.4 \times 0.25$  mm, initially suberect becoming spreading, arched, or deflexed, with stigmatic papillate on exposed upper surface, greenish at base and mostly whitish with pinkish papillae and with midline groove. **Fruit:** berry, in hemispheroid cluster of 5–20 fruits atop a peduncle, 1-seeded, spheric, 5.8–7.5 mm, blackish purple,  $\pm$  glossy or dull and bluish glaucous; pulp ca. 1 mm thick, green, somewhat firm and clinging to seed. **Seed:** spheric, 3.5–5 mm, in fleshy fruit light reddish orange and smooth with fine darker cellular outlines dry in dark reddish brown and shallowly pitted (sunken cell wall); pedicel with conspicuous, ringlike pulvinus at base, to 6 mm long, green; peduncle in fruit compressed and often flat on 1 side, to 28 mm long and somewhat hooked at top.

A. C. Gibson