Vascular Plants of Williamson County

Plantago hookerianum

Plantago hookeriana – HOOKER PLANTAIN, TALLOW WEED [Plantaginaceae]

**Plantago hookeriana** Fisch. & C. A. Meyer, HOOKER PLANTAIN, TALLOW WEED. Annual, taprooted, ascending-rosetted, 1-stemmed at base, acaulous, scapelike with 1–5 inflorescences 25–55 cm tall (the first inflorescence being the tallest); shoot with only many basal leaves attached to an unexpanded stem concealed by leaf bases. Leaves: helically alternate, simple, petiolate, without stipules; petiole basal portion cupped and slightly broadened, to 3 mm long, translucent, long-ciliate, upper portion flat on upper side, to 5 mm long, indistinct from blade, green, long-ciliate on margins; blade narrowly lanceolate to linear-narrowly oblanceolate, < 20–200 × 5–17 mm, long-tapered at base, entire or with widely spaced, remote teeth, acute at tip, parallel-3-veined or 5-veined from base with midrib raised on lower surface, woolly hairy with appressed, upward-pointing or loose woolly hairs on both surfaces. Inflorescence: spike, axillary to 1–5 of the newer basal leaves, many-flowered, (15–)50–115 × 5.5–7 mm diameter, flowers in whorls of 3 in 6 vertical rows, whorls 7–40+ closely spaced, bracteate, exposed green tissue having silky hairs to 4 mm long; peduncle cylindric, 1.5–2.5 mm diameter, tough, green, lower peduncle hairs crooked hairs but from below midpoint long hairs upward-appressed; bractlet subtending sessile flower triangular-ovate and cupped, (2.3–)3–3.5 × 1.5(–2) mm, green with wide membranous margins and tip, woolly on green tissue of outer (lower) surface only, persistent. Flower: bisexual, ± radial, initially with ascending corolla lobes later appressed to spike surface and ca. 5 × 5.5 mm; calyx deeply 4-lobed, strongly bilateral; tube dish-shaped, ca. 1 mm long, light green, glabrous; front pair flattish, obovate-oblong, ca. 2.5 × 1.1–1.4 mm, 1 lobed wider, green with wide colorless margins, rounded at tip, woolly hairy only on green tissue, hidden back pair keeled and cupped-ovate, ca. 3.5 × 2.5 mm, green with wide colorless margins, margins on back of flower overlapping and glabrous, persistent; corolla 4-lobed; tube + throat bell-shaped, 2 × 1.5 mm, colorless, throat having a semicircular thickening at base of each lobe, 0.7 × 0.4–0.5 mm, initially whitish aging red; lobes initially inrolled to upper surface than less inrolled when appressed, subequal, ± heart-shaped with a pair of rounded basal lobes, 2.3–3 × 2 mm, vertical pair symmetric and distal one (closer to spike tip) more cupped, lateral pair asymmetric with basal lobes of different lengths, colorless lacking veins, rounded at tip, aging scarios; stamens 4, attached to corolla ca. 0.35 mm below sinuses (= top of corolla tube); filaments radiating from spike and long-exserted, threadlike, 2.5–7 mm long (the shortest on the smallest plants), colorless; anthers dorsifixed, dithecal, ca. 1.8 mm long, cream-colored aging darker; pistil 1, ca. 3.5 mm long, with tip of style exserted; ovary superior, broadly ellipsoid somewhat 5-angled, ca. 1 × 0.5 mm, green, 2-chambered, each chamber with 1 bulging ovule; style straight, colorless except at base, stigmatic base-to-top with conspicuous, radiating papillae. Fruit: capsule, dehiscent around fruit at midpoint (circumscissile), ellipsoid, 4 × 2–2.5 mm, pale brown, lower portion persistent. Seed: ± hemi-ellipsoid to hemi-obovoid, 2.5–2.9 × 1.3–1.8 mm, dull brown, convex on outer side and deeply concave on inner side, minutely textured on convex side.

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