

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, $< 20\text{--}200 \times 5\text{--}17$ 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, $(15\text{--})50\text{--}115 \times 5.5\text{--}7$ 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, $(2.3\text{--})3\text{--}3.5 \times 1.5\text{--}2$ mm, green with wide membranous margins and tip, woolly on green tissue of outer (lower) surface only, persistent. **Flower:** bisexual, \pm 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. $2.5 \times 1.1\text{--}1.4$ 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, $0.7 \times 0.4\text{--}0.5$ mm, initially whitish aging red; lobes initially inrolled to upper surface than less inrolled when appressed, subequal, \pm heart-shaped with a pair of rounded basal lobes, $2.3\text{--}3 \times 2$ 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 scarious; **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, $4 \times 2\text{--}2.5$ mm, pale brown, lower portion persistent. **Seed:** \pm hemi-ellipsoid to hemi-obovoid, $2.5\text{--}2.9 \times 1.3\text{--}1.8$ mm, dull brown, convex on outer side and deeply concave on inner side, minutely textured on convex side.

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