

**Vascular Plants of Williamson County**  
*Plantago lanceolata* – ENGLISH PLANTAIN [Plantaginaceae]

*Plantago lanceolata* L., ENGLISH PLANTAIN. Perennial herb, with a thick caudex and ± diffuse-rooted, rosetted (= multiple shoots), acaulous, several–many-stemmed at base, scapose, in range 20–70 cm tall; gynomonoecious (gynodioecious); shoots with only basal leaves, silky-hairy to nearly glabrous. **Stems:** at plant base where leaves attached. **Leaves:** helically alternate, simple, petiolate to sessile, without stipules; petiole in range 0–45 mm long, indistinct from blade, U-shaped in ×-section, 5-veined or 7(9)-veined, aging purplish, tough and difficult to tear, base flared with membranous margins, having silky hairs to 10 mm long; blade ± elliptic to oblanceolate or lanceolate, in range 100–180 × 20–40 mm, long-tapered at base, ± entire but remotely toothed having blunt teeth on margins, acute at tip, conspicuously parallel-veined with 5 or 7(9) principal veins raised on lower surface, ± glabrous (full sun) to conspicuously pubescent with silky hairs (shade), minor veins inconspicuously netlike. **Inflorescence:** spike, terminal on scapelike peduncle axillary to basal leaf, several–many per plant, compact ovoid-conic aging cylindrical, 10–80 × 10–12 mm, with 100s of flowers, bracteate, glabrous (sparsely villous); peduncle 5–8-ridged, in range to 600 × 1.5–2.5 mm, green, very tough and eventually wiry, with appressed, upward-pointing white hairs, hollow; bractlet subtending flower cupped-obovate to broadly cupped-ovate, in range 2.6–3 × 1.7–2 mm, broadly tapered and broadly attached at base, entire, acuminate at tip, scarious except narrowly green and herbaceous along most of midrib, glabrous (sparsely villous), with a small brownish dot at top of herbaceous part of midrib. **Flower:** bisexual (also pistillate), radial, 4 mm long + long-exserted style and stamens, strongly protogynous; **sepals** 4 appearing as 3 with 2 sepals fused to form 1 outer sepal, scarious, dimorphic, persistent around fruit; outer sepal ovate to fan-shaped, 2–2.4 × 1.5–2.2 mm, rounded to long-tapered at base, truncate, weakly 2-toothed or 2-notched at tip above 2 veins, glabrous or with several fine villous hairs near end of each vein, narrowly herbaceous along each vein; lateral sepals typically ovate, 2.1–2.2 mm long, slightly asymmetrically folded lengthwise and ± keeled above midpoint, 1-veined, villous-ciliate along vein approaching tip; **corolla** 4-lobed, rotate to strongly reflexed when anthers exserted, translucent and scarious, persistent; tube + throat narrowly urn-shaped, 2.5–3 mm long, neatly abscising around circumference as ovary matures; lobes ovate, 1.4–1.8 × 0.8–1.3 mm, light reddish brown to orangish on swollen midvein at base and intruding into throat, slightly cupped upward, acute to acuminate at tip; **stamens** 4 (0 in pistillate flowers), alternate with corolla lobes, fused to corolla tube ca. 0.5 mm from base, strongly exserted; filaments folded in bud but unfolding and becoming in range 4.5–5 mm long, colorless; anthers dorsifixed near base of connective, dithecal, narrowly triangular prior to dehiscence becoming broadly heart-shaped to ± oblong after dehiscence, ca. 2 × 0.5–1.1 mm, cordate at base, with a sterile, greenish appendage at tip, light yellow with greenish connective, longitudinally dehiscent; pollen light yellow to colorless; **nectary disc** absent; **pistil** 1, 3–5 mm long; ovary superior, ± spheroid slightly compressed, ca. 0.7 mm long, 2-chambered, each chamber with 1 ovule attached to center; style exserted days before stamens become exserted, 2.3–4 mm long, reddish brown to brown, stigmatic and short-hairy along most of style, the basal 0.3–0.5 mm thicker, greenish, and glabrous. **Fruit:** capsule, dehiscent around fruit 0.8–1.3 mm

above base (circumscissile), 2-seeded, ellipsoid to oblongoid,  $2.5\text{--}3.5 \times 1.5\text{--}2$  mm, pale tan; lower portion of fruit persistent. **Seed:**  $\pm$  hemi-ellipsoid to hemi-oblongoid,  $1.8\text{--}3 \times 1\text{--}1.5$  mm, shiny brown to coppery brown (black), convex on outer side and concave on inner side, thickly margined on tips and lateral edges of concavity;  $\pm$  transparent with pale, linear embryo visible through surface (especially from convex surface), mucilaginous when wet.

A. C. Gibson & B. A. Prigge