

## Vascular Plants of Williamson County

### *Plantago wrightiana* – WRIGHT PLANTAIN [Plantaginaceae]

*Plantago wrightiana* Dcne., WRIGHT PLANTAIN. Annual, taprooted, rosetted, 1-stemmed at base with 1–several axillary, scopose inflorescences, < 22–35 cm tall; shoot of only basal leaves, foliage pilose and long-pilose. **Stems:** hidden by sheaths of basal, to 4 mm diameter, to 30 mm long, with short internodes. **Leaves:** helically alternate, simple, petiolate and sheathing older leaves, without stipules; petiole at least half-sheathing with wide membranous margins, tapered to blade, < 5–15 mm long, whitish, margins at base to 2.2 mm wide, long-ciliate on margins, upper surface at base with some hairs to 5 mm long, parallel-veined with veins light green; blade ascending to suberect, somewhat dimorphic, early spring leaves acute-oblongate, to 25 mm long, later leaves folded upward from midrib, linear, 30–145 × 1.5–7 mm broadest above midpoint, entire and ciliate on margins, blunt acute and somewhat prow-shaped at tip, parallel-veined usually with 3 or 5 principal veins slightly raised on lower surface, upper surface glabrous, lower surface with scattered pilose hairs. **Inflorescence:** spike, terminal, many-flowered, cylindric, 7–8 mm diameter, flowers in whorls of 3 (opposite decussate on small individuals), bracteate, appressed long-hairy; peduncle ± erect, axillary to a late-season basal leaf, cylindric, to 300 × 1.5 mm, at anthesis > foliage increasing to 2× leaves, tough, mostly hollow but solid and compressed (shallow furrows and wide faces) approaching spike; rachis usually 3-ridged and 3-sided with ridge descending from each flower, densely long-hairy; bractlet cupped and appressed to flower, ascending, triangular to midpoint and linear above, at anthesis to 3.5 mm long, wide-membranous to midpoint (appressed to calyx), green and nearly linear and rounded at tip, long-ciliate on margins, upper (inner) surface glabrous, lower (outer) surface pilose. **Flower:** bisexual, bilateral, 6–7 mm across, protogynous and pollinated before flower opens; **sepals** 4, appressed to ovary, membranous aging scarious, dimorphic, outer 2 obovate and symmetric or asymmetric, ca. 4 × 1.5 mm, with overlapping margins, scarious margins ± 0.4 mm wide, pilose on outer surface and margin, inner 2 boat-shaped and broadly elliptic, 4 × 2.5 mm (flattened), membranous with green keel, margins ca. 1 mm wide, long-hairy along keel; **corolla** 4-lobed, membranous aging scarious; tube stretched by ovary and bell-shaped at anthesis, 2 mm long, initially pale green with orange-red and somewhat warty approaching limb, ± 4-ridged; lobes appressed backward, ± arrow-shaped to inversely heart-shaped and cupped, 3–3.2 × 2.5–2.6 mm, lacking obvious veins, 1-lobed at base (auriculate), acute to obtuse at tip, upper and lower lobes vertically flattened on spike, deltate in outline, lateral lobes angled downward; **stamens** 4, alternate with corolla lobes, fused to corolla tube 1 mm from base; filaments < 1 mm long, colorless, with a few short hairs near base; anthers below sinuses of corolla, dorsifixed, dithecal, arrow-shaped and flattened, 0.6 mm long with triangular appendage, sacs pale green aging reddish, longitudinally dehiscent, anthers forced upward to corolla orifice; pollen essentially colorless; **pistil** 1; ovary superior, ovoid but 4-sided, 0.8–1 × 0.7–0.9 mm, whitish with darker patches to light green, angles round, truncate at top, 2-chambered, each chamber with 1 ovule attached at center; style included at pollination, greenish, compressed side-to-side below midpoint; stigmas with conspicuous, colorless papillae. **Fruit:** capsule, dehiscent around fruit slightly below midpoint (circumscissile), 2-seeded, ovoid, 4–5 × 2–2.5, pale brown; lower portion of fruit persistent. **Seed:** hemi-ellipsoid to hemi-

narrowly ovoid, ca.  $3 \times 1.5 \times 1$  mm, dull brown, finely textured on convex face often having a slight indentation where developing seed touched the circumscissile border of capsule (below misseed), flat inner face with deep, uniform concavity bordered by a wide rim, mucilaginous when wet.

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