

Vascular Plants of Williamson County

Plantago aristata – BOTTLEBRUSH PLANTAIN, BRACED PLANTAIN, BUCKHORN
[Plantaginaceae]

Plantago aristata Michx., BOTTLEBRUSH PLANTAIN, BRACED PLANTAIN, BUCKHORN. Annual, taprooted, rosetted, 1–several-stemmed at base, acaulous, scapose with < 12 inflorescences, in range to 37 cm tall; shoots with ascending basal leaves, finely long-pilose with hairs 5 mm long. **Stems:** at plant base where leaves attached. **Leaves:** helically alternate, simple, petiolate but indistinct and with sheathing base, without stipules; petiole sheathlike flat and 2× lower blade, parallel-veined and 5-veined with wide membranous margins, indistinct from blade; blade strap-shaped, < 80–170 × 2.5–14 mm, entire, acute at tip, parallel-veined with (3)5 principal veins and midrib raised slightly on lower surface, upper surface with scattered, inconspicuous glandular hairs, lower surface mostly pilose and with some scattered glandular hairs. **Inflorescence:** spike = plant height, terminal on scapelike peduncle axillary to basal leaf, 1–several(–11) per plant, densely many-flowered, flowers in whorls of 3, overlapping, flowers chasmogamous and mostly cleistogamous, bracteate, pilose; peduncle (scape) cylindrical, < 2 mm diameter, pilose at base to short-strigose (appressed hairs < 0.5 mm long) above midpoint; rachis 6-angled, mostly concealed by flowers, internodes to 3 mm in fruit; bractlet subtending flower linear and conspicuous, 12–42 × 1–3 mm, >> flower, the lowest whorl having 1 of 3 the longer and the widest, basal 3–4 with membranous wings, upper surface glabrate, lower surface fine-hairy. **Flower:** bisexual, ± radial, 3.5–4 mm across; **calyx** deeply 4-lobed fused only at base, lobes overlapping, subequal, boat-shaped but not sharply keeled, ca. 1.5 mm long, scarious and herbaceous, the lower 2 lobes with green portion 0.8–1 mm wide, the upper 2 lobes with green portion 0.4–0.5 mm wide, green portion with soft hairs on outer (lower) surface, scarious margins short-hairy on outer surface; **corolla** 4-lobed, membranous, colorless; tube cylindrical but conforming to shape of developing ovary, ca. 3 mm long (chasmogamous flower) or shorter (cleistogamous flower), green aging translucent white, with a narrow, 4-sided orifice; lobes spreading and later reflexed or erect (cleistogamous flowers), cupped-ovate, 1.5–2.2 mm long in a single flower (chasmogamous flower), the upper lobe the shortest and narrower and lower lobe the widest, cordate at base, broadly acute at tip; **stamens** 4, alternate with corolla lobes, fused to corolla tube below sinuses; filaments threadlike, 0.8–1 mm long, white; anthers dorsifixed, dithecal, 0.4 mm long including appendage at top, pale yellow, longitudinally dehiscent; pollen pale yellow to colorless; **pistil** 1, 2 mm long, included; ovary ovoid maturing elliptic, green, glabrous, 2-chambered, each chamber with 1 ovule attached to center; style erect, 1.1–1.3 mm long, white but green at base, conspicuously long-papillate. **Fruit:** capsule, dehiscent around fruit (circumscissile) 1 mm from base, 2-seeded, obovoid, in range (3–)4 × 2 mm, brownish. Seed: hemi-obovoid to hemi-ellipsoid, 2.5–3.3 mm long, reddish brown to brown, rounded on back, deeply concave on flat side, A. C. Gibson