

## Vascular Plants of Williamson County

*Utricularia gibba* – CONESPUR BLADDERWORT, HUMPED BLADDERWORT [Lentibulariaceae]

*Utricularia gibba* L., CONESPUR BLADDERWORT, HUMPED BLADDERWORT. Aquatic annual (perennial) herb, trapping and consuming minute invertebrates in bladders (insectivorous), stolon-bearing, in buoyant, dense mats submersed just below the water surface and having emergent inflorescences, initially taprooted later lacking roots, “rosetted” with several, spreading, feathery leaves; shoots having slender stem (stolon) axes with skeletonized leaves = a 3-dimensional, repeatedly forked, feathery structure having on ultimate blade segments specialized, water-filled, trapdoor bladders, glabrous. **Stems:** cylindrical, to 0.6 mm diameter. **Leaves:** alternate and occasionally whorled, finely pinnately dissected, sessile, without stipules; blade to 3-forked (length difficult to discern), of slender  $\pm$  cylindrical segments, the larger segments green grading to the narrowest segments bristlelike and nongreen with a stalked bladder at fork; bladders on a short, curved stalk, ovate in outline, compressed side-to-side when air-filled or filled with water, functional bladders mostly  $0.8\text{--}1.6 \times 0.5\text{--}1$  mm, colorless to greenish, minutely textured on faces, having a pair of whiskerlike structures at tip (blade tissue) and several short hairs at edge of trap door of bladder (sucking in tiny creature when door swings open then shutting when bladder water-filled). **Inflorescence:** in range 1-flowered cyme, erect, bracteate; peduncle cylindrical and straight, in range to  $35 \times 0.4\text{--}0.5$  mm, white below water and emergent portion green; bractlet subtending pedicel obtuse-ovate somewhat sheathing,  $\pm 0.9$  mm long, paired with a diminutive bractlet for a future flower; pedicel cylindrical, to  $7 \times 0.5$  mm, green. **Flower:** bisexual, bilateral, in range 6–7 mm across; **calyx** 2-lipped (= 2-lobed), green, glabrous; tube short funnel-shaped, ca.  $0.8 \times 0.5$  mm; lips spreading, at anthesis broadly ovate to oval and cupped upward, ca.  $2 \times 1.8$  mm (upper lip) and ca.  $2 \times 1.3$  mm (lower lip) increasing slightly and changing shape in fruit, 8-veined or 10-veined; **corolla** 2-lipped (bilabiate), with spur on lower side cupped by lower calyx lip; tube oblique ca. 0.7 mm across, to 0.6 mm long and 0.2 mm long on short side, white; throat  $< 1$  mm long, white; upper lip spreading forward, rounded 3-lobed and roughly 4-sided slightly cupped inward,  $6\text{--}7.5 \times 4$  mm, yellow, entire on outer margin, with slightly raised veins and scattered, stalked glandular hairs on outer (lower) surface; spur arising from floor of throat, conic compressed front-to-back, horizontally projected forward, deltate in outline, 3 mm, white at base to light yellow at obtuse tip, **nectary** inside at tip producing thin nectar; lower lip with horizontal, fan-shaped base,  $3 \times 4.5$  mm, yellow, with wavy outer margin, upper portion raised and inflated (blocking corolla throat), 2-lobed unit forming a platform (palate), on edge of palate with a beard of papillate hairs, lobe faces minutely textured with 7, 9, or 11 vertical, light red nectar guides; **stamens** 2, arising at top of corolla tube, included; filaments comma-shaped widest at the anther and compressed side-to-side, 1 mm long, colorless, having raised cells along crest; anthers medifixed, monotheical, ca. 0.8 mm long, initially anther wall translucent and faintly 4-subdivided aging yellowish, longitudinally and upward dehiscent; pollen white; **pistil** 1, 1.1–1.25 mm long; ovary superior, ovoid to spheroid,  $0.6\text{--}0.75 \times 0.7$  mm, glossy green, glabrous, 1-chambered with many ovules attached to central mound (free central placentation); style 2-branched, lower portion broad, 0.2 mm long, green, the stigmatic branches ascending, semicircular, flat and thin, greenish. **Fruit:** capsule, circumscissile, many-seeded, broadly obovoid to subspheroid, ca. 2.5–3 mm long, before dehiscing glossy and with short beak (persistent

lower style); calyx mostly concealing capsule, lips cupped-obovate, ca. 2.5 mm long, upper lip wider than lower lip. **Seed:** ± bi-convex and waferlike with winglike margin, 0.8–1 × 0.2 mm, brown, wing often 5-angled, inner surface having bump of the funiculus.

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