## Vascular Plants of Williamson County Verbascum blattaria – MOTH MULLEIN [Scrophulariaceae]

Verbascum blattaria L. MOTH MULLEIN. Biennial herb, taprooted, flat-rosetted, mostly 1stemmed at base (old plants with emerging lateral shoots within rosette), with ascending flowering branches in canopy developing downward from successive nodes of primary axis, in range to 120 cm tall; shoot with many basal leaves in a well-developed rosette and cauline leaves, at flowering with 30+ green basal leaves and also having a persistent set of dead basal leaves from previous year, cauline leaves to midplant plant below ascending to erect inflorescences, foliage often appearing glabrous but initially with stalked glandular hairs. **Stems:** ridged, to 10 mm diameter at base, with 2 winglike ridges decurrent from margins of each cauline leaf, tough and becoming woody, pale green. Leaves: helically alternate, pinnately lobed (basal leaves) to serrate, petiolate (basal leaves) to sessile (cauline leaves), without stipules; petiole of rosette leaves flat on upper side, to  $25 \times 8$  mm, white, raised on lower side; blade of rosette leaves oblong to oblance late,  $< 120-235 \times$ 40–50 mm, coarsely lobed with principal lobes never paired and sinuses > 1/2 to midrib, coarsely serrate on margins, obtuse to acute at tip, of sessile cauline leaves ovate, < 60-120 $\times$  30–50 mm, not clasping, coarsely servate on margins, acute at tip, pinnately veined but sessile leaves having several veins at base, principal and some minor veins sunken on upper surface and raised on lower surface, upper surface often glabrescent at maturity. Inflorescence: raceme, terminal and from node below existing raceme (panicle), manyflowered and the longest with 60+ flowers, flowers helically alternate, bracteate, with stalked glandular hairs; bract subtending raceme leaflike, sessile and triangular, to  $19 \times 13$ mm, 9-veined at base; rachis cylindric, to 600 mm long; bractlet subtending pedicel acuminate-lanceolate, ca.  $7 \times 2$  mm increasing to acuminate-ovate and  $12 \times 4$  mm in fruit, wavy on margins, with stalked glandular hairs on lower surface and on upper surface approaching tip; pedicel spreading to ascending, at anthesis 9.5–11 mm long increasing some in fruit, green, with stalked glandular hairs. Flower: bisexual,  $\pm$  bilateral, 20–29 mm across; calvx 5-lobed, in range ca. 6 mm long, green, with abundant stalked glandular hairs on outer (lower) surface; tube short; lobes subequal, narrowly ovate to lanceolate and acute, ca.  $6 \times 1.3-2$  mm (1 slightly narrower), inner (upper) surface with some glandular hairs above midpoint; corolla 5-lobed, cymbal-shaped (rotate), easily dislodged in bud and flower, in bud pale yellow opening white, glabrous; tube  $< 1 \log_{10} 2.5 mm$  across, broadening into a saucer-shaped throat 4–8 mm wide, with 2 interrupted bands of redpurple on lower throat; lobes rounded and often obovate,  $5.5-8 \times 7-9$  mm, upper 2 lobes somewhat smaller and more fused than other lobes, white; stamens 4, fused to lower throat, 2 pairs of different sizes; filaments  $5 \times 0.5$  mm (long stamens) and  $2.5 \times 0.25$  (short stamens), dark purple, densely hairy on inward side having light purple stalked 2–3 mm long and dark purple, obovoid heads; anthers dorsifixed, dithecal, asymmetrically fanshaped, ca. 2.3 mm long, yellow-orange with pale green connective, the oblique anther formed on lower side, longitudinally dehiscent; pollen yellow-orange; nectary disc at base of ovary, ringlike, fine; **pistil** 1, ca. 9 mm long; ovary superior, ovoid somewhat compressed side-to-side, ca.  $2 \times 2 \times 1.5$  mm, green, densely covered with stalked glandular hairs but stalks shorter than elsewhere on plant, 2-chambered, each chamber with many ovules attached to center; style exserted, cylindric, 6.5–7 mm long, orangish at base to

purplish red above; stigmas 2, fused and appearing truncate, yellow-orange and papillate at tip. **Fruit:** capsule, loculicidal, dehiscing by 4 valves, many-seeded, spheroid weakly 2-lobed, ca.  $6 \times 6.5$  mm, with persistent beak (style) ca. 1 mm long, glandular-pubescent. **Seed:** thimble-shaped with truncate ends and 4 regular sides, ca. 0.7 mm long, brown. A. C. Gibson