Vascular Plants of Williamson County

Brassica rapa – FIELD MUSTARD, TURNIP [Brassicaceae]

Brassica rapa L., FIELD MUSTARD, TURNIP. Annual, taprooted, rosetted, 1–several-stemmed at base, branched above with ascending flowering branches, erect, in range 30–160 cm tall; shoots with basal leaves and cauline leaves, slightly to conspicuously glaucous, rosette leaves somewhat conspicuously light-spotted and somewhat hispid, the hairs unbranched, < 1.5 mm long, with swollen bases. **Stems:** irregularly ridged below and cylindric above, to 10 mm diameter, light green, especially glaucous at base, hairs primarily below nodes, spreading to reflexed, becoming sparser or glabrous upwards. **Leaves:** helically alternate, deeply pinnately lobed and petiolate (lyrate; basal and lower cauline leaves) and unlobed and sessile and clasping (upper cauline leaves), to 350 × 30–90 mm, the largest leaf at several nodes above shoot base and then decreasing upward, without stipules; petiole of basal leaves cylindric, 40–90 mm long, thinly to broadly winged; blade of basal and lower cauline leaves obovate to broadly oblanceolate, deeply lyrate or not, ciliate with straight hairs on margins, pinnately veined with veins raised on lower surface, sparsely hairy, the hairs erect or prostrate, evenly distributed and forming spots or pustules of light-colored tissue on upper surfaces, lower surface with hairs distributed mostly along veins and not forming spots; blade of upper cauline leaves (not lyrate) with terminal lobe, 85–125 × 55–80 mm, crenate-dentate and ± wavy on margins, typically broadly rounded at tip, lateral lobes 2–5 per side, subopposite to alternate, oblong, rounded at tip; blade of unlobed leaf 140–150 × 50–55 mm, acuminate at base, shallowly crenate on margins, rounded at tip. **Inflorescence:** panicle of racemes, terminal, raceme many-flowered, congested and ± flat-topped at tip with open flowers overtopping buds, glabrous except occasionally on bracts; bract subtending raceme leaflike, clasping, lanceolate to narrowly ovate, to 110 mm long reduced upward, very thin and easily wilted, lobed at base (auriculate), somewhat glaucous, sparsely hairy or glabrous; axes cylindric; bractlets absent; pedicel ascending, at anthesis 8–15 mm long increasing 2× in fruit. **Flower:** bisexual, radial, 10–11 mm across; **sepals** 4, ± erect, in opposite, slightly dimorphic pairs, oblong, 4–5 × 1–2 mm, green aging yellowish green, one pair slightly expanded (gibbous) and typically broader than the other pair, with narrowly membranous margins, deciduous; **petals** 4, clawed, spatulate, 6–10 × 3–4 mm; claw erect, narrowly wedge-shaped, 2.5–4 mm long, with raised, yellow midvein and pale yellow winglike margins; limb spreading, obovate, bright yellow, pinnately veined; **stamens** 6, free, in 2 whorls, dimorphic with outer 2 short and inner 4 longer and exserted; filaments erect, 2–3 mm long (short stamens) and 5–5.5 mm long (long stamens), pale yellow; anthers dorsifixed, dithecal, ± 2 mm long, light yellow, arrow-shaped at base, longitudinally dehiscent; pollen light yellow; **nectaries** 4, opposite sepals and alternate with long filaments, spheroid, 0.3–0.7 mm wide, dark green, the 2 opposite the short filaments < and wider than others; **pistil** 1, 5–7 mm long; ovary superior, compressed-cylindric, straight, light yellowish green, 1-veined per valve, 2-chambered, each chamber with many ovules in 2 rows; style at anthesis 1–2 mm long, developing into long beak; stigma capitate and hemispheric, obscurely 2-lobed, greenish, level with anthers of long stamens, the divide between lobes ⊥ septum. **Fruit:** siliqua (silique), dehiscent, 2-valved with septum parallel to valves, 5–19-seeded, spreading to ascending, strongly beaked,

linear with bulging at positions of seeds (torulose), in range 32–53 × ± 2.5 mm (including beak), valves convex and conspicuously veiny; beak 11–15 mm long, 1–1.2 mm diameter near base, 0.6–0.7 mm diameter and truncate at tip. **Seed:** compressed-spheric, ca. 1 mm, dull reddish brown; seed coat with abundant wax along cell margins.
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