

Vascular Plants of Williamson County

Diplotaxis muralis – STINKING WALL-ROCKET [Brassicaceae]

Diplotaxis muralis (L.) DC., STINKING WALL-ROCKET. Annual, taprooted, several-stemmed at base, in range prostrate and 20 cm tall; shoots with basal leaves and cauline leaves, sparsely short-hirsute to glabrescent with scattered unbranched hairs mostly on lower plant, foliage ill-smelling (sulfurous compounds produced in myrosin cells). **Stems:** cylindric, to 2 mm diameter, with downward-pointing hairs. **Leaves:** helically alternate, simple and coarsely toothed, petiolate but not clasping, without stipules; petiole broadly channeled, in range to 15 mm long but poorly defined, short-ciliate along edges; blade oblanceolate to obovate, in range to 50 × 4.5–15 mm, long-tapered at base, in range mostly coarsely serrate and short-ciliate on margins, obtuse to acute at tip, pinnately veined with midrib raised slightly on lower surface, dull green, upper surface typically glabrous, lower surface having short hairs along midrib and many raised glands visible (7×).

Inflorescence: raceme, terminal, ascending to spreading, raceme < 12-flowered with helically alternate flowers, open flower overtopping buds and not close to ascending immature fruit, becoming widely spaced in fruit, lacking bracts, sparsely short-hirsute; rachis to 180 mm long, pedicel at anthesis suberect and 3–4 mm long increasing 2× and ascending in fruit. **Flower:** bisexual, radial, 8–9 mm across; **sepals** 4, dimorphic in opposite pairs with 1 pair cupping the other, cupped ovate, 3–3.3 × 1.5 mm, green and reddish with narrow membranous margins and at tip, in bud 1 pair slightly longer and with raised midvein, each sepal with several short hairs; **petals** 4, forming bowl-shaped corolla, clawed, obovate, ca. 6.5 × 2.5 mm; claw ca. 1 mm long, pale yellow; limb light yellow faintly pinnately veined; **stamens** 6, free, dimorphic with outer 2 short and inner 4 longer, in range to 4.5 mm long (long stamens) and short stamens = sepals; filaments light green; anthers basifixed, dithecal, ± arrow-shaped at base, 1.5–1.7 mm long (long stamens) and 1 mm long (short stamens), light yellow, longitudinally dehiscent; pollen light yellow; **nectaries** 2, opposite sepals between pairs of filaments of long stamens, conic, ca. 0.4 mm long, green; **pistil** 1, ca. 4 mm long; ovary superior, ± compressed-cylindric and straight, 3 × 0.5 mm, glabrous, 2-chambered, each chamber with ca. 20 ovules in 2 stacks; style cylindric, 1.5 mm long including capitate stigma slightly 2-lobed, the stigma below anthers of long stamens, densely papillate and pale yellow-green. **Fruit:** siliqua (silique), subsessile, dehiscent by 2 valves, to 35-seeded, linear somewhat compressed parallel to septum but bulging and never flat, in range ascending, in range 13–18 mm long + persistent beak (style + stigma) 2 mm long, dehiscent parallel to septum, seeds in 2 rows per chamber, with midvein on each valve, glabrous; beak lacking seeds. **Seed:** broadly subspheroid and somewhat compressed, 0.9–1.2 mm long, dull yellow-brown, with the outline of U-shaped embryo visible, minutely pitted.

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