

Vascular Plants of Williamson County
Nasturtium officinale – WATERCRESS [Brassicaceae]

Nasturtium officinale W. T. Aiton, WATERCRESS. Aquatic perennial herb, evergreen, rooting at nodes from leaf axils, many-stemmed at base, branched throughout, prostrate or decumbent, 20–50(–120) cm tall; shoots with basal leaves and cauline leaves, ± glabrous to sparsely puberulent with colorless, unbranched hairs. **Stems:** irregularly angled, to 15 mm diameter, with a ridge descending from each leaf, thick and somewhat fleshy, green often aging purplish, typically inconspicuously short-hirsute near axillary buds; hollow. **Leaves:** helically alternate, odd-1-pinnately compound, 40–350 × 25–90 mm, with 0–10 opposite or subopposite, sessile lateral leaflets or sometimes lower leaflets alternate (submersed juvenile leaves sometimes simple), petiolate, without stipules; petiole channeled, (3–)15–75 mm long, clasping with a pair of short, fleshy, earlike projections at base (auriculate), short-hirsute in channel; rachis channeled, short-hirsute in channel; blades of leaflets ovate to roundish (oblong), 5–65 × 3–35 mm, terminal leaflet the largest and symmetric, lateral leaflets typically asymmetric, rounded to cordate at ± sessile base, short-crenate to entire on margins, obtuse or rounded to acute at tip, ± pinnately veined with principal veins raised on both surfaces, having elongate, swollen (crystalline) cells along veins. **Inflorescence:** raceme, terminal on determinate lateral shoot with 1 leaf subtending raceme, in fruit up to 250 mm long, many-flowered, ± flat-topped with open flowers at or above level of buds, lacking bracts, essentially glabrous; bract subtending raceme = pinnately compound leaf; peduncle absent, the lowest pedicel typically arising at base; rachis low-ridged; bractlets absent; pedicel ascending, 4–5 mm long at anthesis, radiating to deflexed and increasing to 12–38 mm long in fruit, low-ridged, inconspicuously puberulent on upper side, occasionally with emerging adventitious roots in axil. **Flower:** bisexual, radial, 4–5 mm across; **sepals** 4, ascending, slightly dimorphic, narrowly oblong to ovate or obovate, 2–3 × 0.7–1.2 mm, somewhat inrolled, fleshy, green with narrow, whitish membranous margins at and near tip, of outer pair slightly pouchlike at base and attached lower on receptacle, deciduous after flowering; **petals** 4, clawed, spatulate, 3–5.5 mm long; claw 1.5–2.5 mm long, tapered to base, whitish sometimes aging pinkish; limb spreading, obovate, white, pinnately veined with veins faint and greenish becoming reddish; **stamens** 6, free, dimorphic with outer 2 short and inner 4 longer, short stamens included, long stamens slightly exerted; filaments ≤ sepals (short stamens) and ≥ sepal (long stamens), light green aging pinkish burgundy; anthers basifixed, dithecal, 0.5–0.6 mm long, yellow, ± arrow-shaped, longitudinally dehiscent; pollen light yellow; **nectaries** 2, each subtended by a short stamen, minute, 2-lobed, green; **pistil** 1, 2–4.5 mm long; ovary superior, straight cylindric, pale green becoming reddish and then again green, glabrous, fleshy, green with narrow, whitish membranous margins at and near tip, 2-chambered, each chamber with 2 rows of many ovules; style 0.5–0.7 mm long; stigma capitate, indistinctly 2-lobed with lobes ⊥ to septum. **Fruit:** siliqua (silique), dehiscent by 2 valves parallel to septum, many-seeded, ± cylindric, 10–17 × 2.2–3 mm, slightly bulging from seeds, glossy, with valve midvein obscure; beak ± 0.5 mm long; septum with midvein. **Seed:** compressed-roundish or ellipsoid to ovoid, 0.9–1.3 mm long, cinnamon brown, with netlike surface.

A. C. Gibson & B. A. Prigge