

Vascular Plants of Williamson County

Persicaria hydropiperoides – WILD WATER PEPPER, SWAMP SMARTWEED, MILD WATER PEPPER [Polygonaceae]

Persicaria hydropiperoides (Michx.) Small, WILD WATER PEPPER, SWAMP SMARTWEED, MILD WATER PEPPER. Aquatic perennial herb, rhizomatous, fibrous-rooted, not rosetted, many-stemmed at base, with shoots ascending from rhizome, in range to 95 cm tall; shoots with only cauline willow-shaped (*Salix*) leaves, lacking any purplish blotch or markings on upper surface of blade, strigose and short-strigose (short-hirsute); rhizomes of buried, horizontal stems, swollen at nodes; adventitious roots several–many at all rhizome nodes. **Stems:** cylindric, to 3.5 mm diameter, distinctly swollen above each node to 5 mm, green with reddish ring below each node but lacking deep rose or purplish red spots; internodes solid. **Leaves:** helically alternate, simple, short-petiolate, with stipules; stipules (2) fused into cylinder and sheathing stem (ocrea) and attached to petiole, tissue 7–15 mm long, enlarged but appressed around node, truncate at tip, membranous and later becoming light brownish and scarious and fracturing above midpoint, lacking glandular dots, with raised, orangish parallel veins, splitting by emergent lateral shoot, strigose with appressed, upward-pointing stiff hairs arising from raised veins, having ca. 10 bristles ciliate on top margin (extensions of parallel veins), the bristles straight, in range 5–7 mm long, red-orange; petiole strongly attached to leaf base, above ocrea hemi-cylindric, in range ca. 1 mm long, below expanded portion to 4 mm long, with 5 raised veins (or having another arching vein with semicircular margin), sparsely strigose with colorless and orangish hairs; blade lanceolate-linear, in range (30–)60–130 × (3–)4–11 mm, flat, tapered at base, entire and minutely short-strigose ciliate on margins, acuminate at tip, inconspicuously pinnately veined with midrib raised on both surfaces, not gland-dotted, midrib conspicuously short-strigose with upward-pointing hairs but green surfaces glabrous. **Inflorescence:** panicle of 1–3 spreading, racemelike branches, terminal and axillary, branch somewhat cylindric, uninterrupted, not dense, in range < 20–40 × 4.5–6 mm, many-flowered having 20+ nodes each with ca. 3 flowers per lateral cluster (condensed cyme) along axis, flowers of each cyme exerted sequentially, bracteate having bract and bractlets (ocreoletas) nested with 1 bractlet around each flower, with bristles on margin on only outer bract; branched inflorescence sometimes with 1 bracteate cyme at fork of 2 axes; bract at basal fork leaflike, of blade < 35 mm long and ocrea, the ocrea ca. 7 mm long including bristles; peduncle slender, of each branch 10–30 × ± 0.35 mm, lower axes to 45 mm long, glabrous, lacking glandular hairs; rachis mostly concealed by sheathing bracts; bract subtending cyme like ocrea, closed, long bell-shaped, 2.2–3.5 × 1.5 mm, and at anthesis each flower exerted on pedicel from bractlet and bract, bract not splitting, green striped with membranous margin, surface not gland-dotted and glabrous, having to 11 orangish bristles 0.5–4 mm long along top; bractlet ca. 2.5 mm long, < bract, membranous, lacking bristles; pedicel 2.6–3 mm long, tip exerted < 0.5 mm, colorless aging pinkish at tip, flat on 1 side, glabrous. **Flower:** bisexual (staminate flowers not yet observed in range), radial, < 2 mm across; not open; **perianth** 5-lobed, ca. 2 mm long, lacking glands on outer green tissue (inconspicuous glands on at least the inner 2 lobes); tube funnel-shaped and somewhat 3-sided, ca. 0.6 mm long increasing in fruit, yellow-green; lobes overlapping, ± monomorphic, elliptic-obovate, ca. 1.5 mm long, rounded at tip, outer 3 lobes ca. 1 mm diameter and light green with whitish margins, cupped later boat-shaped, inner 2 lobes ca.

1.2 mm diameter and pure white, minutely gland-dotted (punctate) above midpoint, veins inconspicuous; **nectary** tissue glossy green but nectar not observed; **stamens** 8 in 2 whorls, lower whorl fused to perianth tube near top of nectary tissue, upper whorl fused to white perianth tissue on 1 side next to margin of 4 lobes; filaments unequal, 0.7–1.3 mm long, pink or with white at base, tapered to tip; anthers versatile-dorsifixed, dithecal, included, \pm 0.35 mm long, light pink, longitudinally dehiscent; pollen white; **pistil** 1, ca. 1.4 mm long, included, stigmas below levels of anthers; ovary superior, conspicuously 3-angled, 0.7 \times 0.6 mm, glossy light green, 1-chambered with 1 ovule; style 1, 3-branched at midpoint, white, the branches ascending, ca. 0.35 mm long; stigmas capitate. **Fruit:** achene, 3-angled, in range 1.6–2 \times 1.3–1.4 mm, glossy black (reddish aging brown when immature), smooth, with rounded edges, faces concave; lacking beak but reddish style often persisting before fruit shed; enclosed by persistent perianth.

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