

Vascular Plants of Williamson County

Persicaria pensylvanica – PENNSYLVANIA SMARTWEED [Polygonaceae]

Persicaria pensylvanica (L.) M. Gómez, PENNSYLVANIA SMARTWEED. Annual, taprooted and fibrous roots at submersed nodes, not rosetted, with or without ascending lateral branches, ascending to erect from older, decumbent submersed stems, in range < 90 cm tall (from root); shoots with only cauline leaves, in range without a central, purplish triangular to crescent-shaped blotch on upper surface of blade, sparsely short-strigose with upward-pointing hairs, mostly not gland-dotted; adventitious roots on aerial shoot appearing as buds at nodes. **Stems:** cylindric, to 10 mm diameter, in range not ridged, distinctly swollen above each node, green with purple-red nodes, internodes to 105 mm long, on aerial stems often with a ring of pimplelike glands (punctuate-glandular) at top of internodes with buds of adventitious roots, above nodes with minute red hairs; internodes with pinkish pith. **Leaves:** helically alternate, simple, petiolate, with stipules; stipules (2) fused into cylinder and sheathing stem (ocrea) and attached to petiole sheath and concealing surface of internode, papery light brown and truncate at tip, to 12 mm long, becoming scarious and fracturing, lacking glandular dots, with parallel vein with strigose hairs and with minutely stalked glandular hairs along veins with or without extensions of veins at top 0.3–1.1 mm long (ciliate), not punctuate-glandular; petiole at base winged and closed-sheathing, above ocrea hemi-cylindric mostly 4–10 mm long, closed winged and green with raised veins converging at upper petiole and an oblique ridge beneath ocrea, upper petiole short-strigose and often pink on upper side; blade in range narrowly lanceolate-linear, aerial leaves in range 100–185 × 6–16 mm, flat, tapered at base, entire and short-strigose ciliate on margins, long-tapered to blunt tip, conspicuously pinnately veined with midrib slightly raised on upper surface and midrib conspicuously raised and principal veins slightly raised on lower surface, upper surface with appressed, scalelike hairs along midrib, lower surface minutely puberulent but short-hairy along midrib. **Inflorescence:** spikelike panicle, terminal and axillary, ascending to spreading, mostly with 2 solitary panicles or a short forked with 2 panicles, panicle cylindric, in range to 50 × 6–7 mm, of lateral cymes closely spaced and overlapped but the lowest cyme widely spaced commonly by a long internode, cyme mostly 8–10+-flowered, bracteate, not punctuate-glandular; bract subtending a pair of peduncles leaflike; peduncle cylindric, to 80 × 1.3 mm, finely striped green and colorless, glabrous and lacking glands or glandular hairs; bract subtending cyme ensheathing and ocrealike (ocreola), closed, outer side appearing trowel-shaped acute at tip, 2–2.5(–3) mm long, papery brown, short-strigose and short-ciliate on margin with veins extensions < 0.5 mm long; bractlet subtending pedicel < bract and ocrealike; pedicel ± flattened on sides, 2–5 mm long, whitish aging reddish, glabrous. **Flower:** bisexual, ± radial appearing bilateral in fruit compressed front-to-back, at anthesis 1–1.3 mm across, ± closed; **perianth** 5-lobed, in range 2.2–2.4 mm long increasing to 3 mm long in fruit and in large fruits 3-sided, lacking punctuate glands; tube cup-shaped, green, glabrous; lobes overlapping, somewhat dimorphic, obovate, outer 2 lobes opposite and ± hoodlike, ± 1.5 mm long and inner lobes alternate and cupped, 1.1–1.2 mm long, pure white or tinged rose, increasing in fruit and aging white, with slightly raised midvein but not 2-forked and recurved near tip (versus anchor-shaped); **nectary** not observed; **stamens** 6–8, fused to perianth tube; filaments ± 1 mm long

increasing 2× in fruit, white or tinged rose, flat, tapered to tip; anthers dorsifixed, dithecal, 0.4 mm long, white to rose aging pale yellow or rose, longitudinally dehiscent; pollen white; **pistil** 1, ca. 1.3 mm long, included; ovary superior, lens-shaped (biconvex) or somewhat unequally 3-sided (trigonous), ± 0.5 mm, glossy light green, 1-chambered with 1 ovule; styles 2 but fused at base 0.2 mm, whitish, the branches ascending. **Fruit:** achene, in range disc-shaped without a depression or hump on a face or unequally 3-sided, in range 2–2.2 mm long + persistent style (beak) to 0.4 mm long, body glossy black (dark brown), enclosed by persistent perianth at maturity, perianth 2-sided with disclike achene and 3-sided with 3-sided achene.

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