

Vascular Plants of Williamson County

Marsilea vestita – HAIRY PEPPERWORT [Marsileaceae]

Marsilea vestita Hooker & Grev., HAIRY PEPPERWORT. Perennial herb (aquatic or terrestrial), clonal, rhizomatous, fibrous-rooted at nodes, rosetted with acaulous plantlets along horizontal rhizomes, aquatic form with floating leaves, land form with ascending leaves to 16 cm tall; shoot rosettes with 1–several leaves at each node along rhizome, blades exhibiting sleep movements, very young leaves arising from folded and indistinctly coiled fiddleheads, shoots in range essentially glabrous; rhizomes creeping, congested (mother plant) but often with aboveground, slender, unbranched, stolonlike extensions, cylindrical, to 1 mm diameter, internodes of stolonlike rhizome to 20 mm long, glabrous. **Leaves (fronds):** helically alternate, pinnately compound and 4-foliolate (appearing palmately compound) of 2 opposite pairs of leaflets and having a very short rachis, long-petiolate; petiole (stipe) of land leaves cylindrical, (13–)25–155+ × to 0.7 mm, tough, typically with relatively few hairs; petiolules to 1 mm long, pulvinuslike; blades of leaflets fan-shaped, in range (3–)5–17 × (2–)4–13 mm, thin, triangular-tapered at base, entire, truncate to rounded at tip (not reddish along edge), finely ± dichotomously veined with some cross veins, if hairs present sparsely villous and appressed. **Sporocarp (sporangium case):** containing elongate sori of male and female sporangia, attached on stiff stalk at base of each moderate-sized leaf just above mud level; stalk ascending, unbranched, ± 7 mm long + ridge (raphe) attached 1.1–1.7 mm to sporocarp, stalk and raphe orangish, stalk with scattered hairs, at base of raphe having a short tooth (proximal tooth), at top of raphe having a larger, red to purplish tooth (distal tooth) 0.4–1.2 mm long and often hooked; sporocarp horizontally oriented, nutlike, hard-walled and appearing indehiscent but eventually in water dehiscent along upper edge (“germinating”) to permit water-requiring sexual reproduction, compressed-ellipsoid or slightly ovoid, in range 5–6.8 × 4–5.2 × 3–3.5 mm, brown to dark brown aging with purple craters having minute rims (scars of hairs), initially hirsute with mostly appressed hairs and coherent to wall, the hairs flattened and mostly oriented from top edge to bottom edge, white or aging brownish; sporocarp remaining indehiscent and viable for years, becoming glabrescent as hairs shed. **Sori:** narrowly elongate parallel to veins of sporocarp, in gelatinous matrix protruding from sporocarp, having numerous female sporangia attached along ridge and smaller male sporangia along flanks; **male sporangia** (microsporangia) with many smaller spores; **female sporangia** (megasporeangium) 1-spored.
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