## Vascular Plants of Williamson County <br> Thelypteris ovata var. lindheimeri - LINDHEIMER'S MAIDEN FERN [Thelypteridaceae]

Thelypteris ovata R. P. St. John var. lindheimeri (C. Christens.) A. R. Smith, LINDHEIMER'S MAIDEN FERN. Perennial herb, appearing evergreen, rhizomatous, fibrousrooted, with several leaves emerging from ground, in range to 100 cm tall; shoot with leaves arising directly from rhizome $10-25 \mathrm{~mm}$ apart, leaves ascending, monomorphic, 250-1150 mm long, blade > petiole, aboveground having short-pilose nonglandular hairs mostly $0.2-0.5 \mathrm{~mm}$ long and stalked glandular hairs to 0.15 mm long having yellow heads on axes and mostly restricted to lower surface of foliage, not viscid; rhizome shallow, horizontal, creeping, to 6 mm thick, covered with brown scales, having adventitious roots on lower side. Leaves (fronds): alternate, odd-2-pinnately compound-lobed having primary leaflets (pinnae) paired and subopposite (alternate) ca. 3/4 (12-23 pairs), approaching end of rachis pinnae and final portion pinnately lobed (pinnatifid) at tip, petiolate with petiole $\leq$ blade, without stipules; petiole $\pm$ cylindric at base (slightly flattened) to channeled from below midpoint or along entire length, in range 110-570 $\times$ $2.5+\mathrm{mm}$, tough, purple-red to purple at base and light green above aging tannish, having a fine line on each lateral side, with scattered short-pilose and stalked glandular hairs, having lanceolate to narrowly triangular papery brown (purplish) scales near rhizome, the scales to 2 mm long, with several short-pilose hairs on surface; blade triangular in outline, rachis channeled, light green aging tannish, with slender, colorless scales to 3 mm long, aging tannish and early-abscising, rachis having pairs of subsessile pinnae spaced $15-29 \mathrm{~mm}$ apart, decreasing upward, pinnae broadly linear to linear-narrowly lanceolate, < 70-190 × $<11-22 \mathrm{~mm}$, the lowest pinnae $<$ second pinnae, the longest pinnae at midblade and then gradually shorter to tip, terminal pinnatifid lobe with acuminate tip, rachilla absent, lateral pinnae lobes (pinnules) 6-8 per 10 mm of pinna, with tissue $1.5-2 \mathrm{~mm}$ from costus to sinus, somewhat cupped, on large blades triangular-ovate wider on the leading side, to $10 \times$ 5 mm , the largest at base incrementally decreasing to tip, angled forward, sinuses nearly to whitish midvein (costule) and often puckered at sinuses, entire, broadly acute to obtuse or rounded at tip, sometimes trailing basal pinnule of a pinnae having a sublobe adjacent to rachis, pinnately veined, the lateral veins to 14 and parallel, ending at margin ("sinus"), costus and whitish midvein of pinnules raised and channeled on upper surface and principal veins raised on lower surface, upper surface of blade glabrous or in range along midvein lined with short-pilose nonglandular hairs and stalked glandular hairs, lower surface short-pilose and with stalked glandular hairs having yellow heads especially along veins and margins. Sori: on lower surface on lobes along lateral veins midway between margin and midvein in 2 lines, the lines $1-6(-7)$ reaching just above midlobe, roughly round in outline, mostly $0.5-0.7 \mathrm{~mm}$ across, not touching adjacent sori, each with ca. 20 sporangia; indusium attached in center and kidney-shaped concealing immature sporangia, greenish drying colorless, short-pilose and with shorter glandular hairs, including glandular-ciliate on lobe margins. Sporangia: ca. 0.2 mm across, dark red.
A. C. Gibson

