***Thalictrum polycarpum*** (Torrey) S. Watson, TALL WESTERN MEADOW RUE. Perennial herb, drought-dormant, from erect caudex becoming rhizomatous, fibrous-rooted, mostly in dense clumps and appearing clonal, typically unbranched below inflorescence, erect to ascending, 50–195 cm tall; dioecious; shoots with 3-dimensional basal leaves and cauline leaves having slightly elevated lateral leaflets, glabrous and mostly not glandular-puberulent (some hairs along axes), lacking foul odor, conspicuously glaucous; caudex retaining fibrous leaf bases, oldest caudex, rhizome, and root flesh conspicuously yellowish. **Stems:** low-ridged, to 18 mm diameter, tough, shallowly zigzagged, long internodes midplant to 290 mm long, internodes at base of plant deep purple (portions yellow at ground level) and glaucous at least to midplant, other internodes often purple to purple-striped, some internodes with minute glandular hairs; internodes hollow. **Leaves:** helically alternate, to 4-compound and unequally 3-forked at major junctions (3–4-ternate), to 650 mm long, pinnately arranged with primary, secondary, and tertiary leaflets in symmetric pairs, long-petiolate with stipulelike sheathing base; petiole to 330 mm long (basal leaves) decreasing upward, basal portion sheathing, sheathing base closed (lower leaves) and open (the uppermost cauline leaves), having a pair of scarious wings, wings several–90 mm long (decreasing upward), midstem flaring ca. 4 mm and whitish, above wings axis cylindric, green but often red to purplish red on exposed upper side, minutely glandular-hairy and somewhat glaucous; stipel-like appendages absent at all forks; axes cylindric, first segment of rachis the longest, gradually decreasing in length and diameter with each order, at each 3-fork axes similar diameter but central axis always longer and thicker, noticeably knobby at junctions and often having fine groove at base of each segment and appearing jointed, terminal segments of rachis angled, to 0.5 mm diameter; petiolules of ultimate segments fine, 0.5–10+ mm long with terminal segment the longest; ultimate blade segments broadly obovate or wedge-shaped to broadly ovate, (7–)10–55 × (4–)9–70 mm long, thin and easily wilted, cordate or truncate to broadly tapered at base and lateral leaflets often oblique, mostly 3-lobed and toothed above midpoint, crenate to serrate, venation pseudopalmate with principal veins arising near base and sunken on the upper surface and raised on lower surface, dull, glabrous and without glandular hairs, glaucous but less so on upper surface. **Inflorescence:** panicle of cymes, unisexual, to 4-compound, at top of canopy, terminal on main axis and sometimes terminal on an ascending branch just beneath terminal inflorescence, cymes axillary to bracts along inflorescence or sometimes upper cymes in pairs, principal cymes several–many-flowered, to 330 mm long, from each axil mostly having 2 unequal branches, bracteate, glabrous and mostly lacking glandular hairs, glaucous; bract subtending peduncle leaflike, to 3-compound, decreasing upward to 2-compound and then 1-compound; rachis cylindric, < 5 mm diameter, slightly zigzagged, internodes to 100 mm long and decreasing upward, shorter on staminate inflorescence, glaucous around branch junctions; branch cyme with cylindric axis to 2 mm diameter, having a dominant axis and a late-forming minor axis (often 1-flowered); bract subtending upper cyme = diminutive cauline leaf with spreading to reflexed, broadly triangular or rounded, fringed to jagged, winglike margins across the horizontal, sheathing petiole (resembling a pair of white stipules); bract subtending ultimate cyme much reduced; pedicel slender, variable in length, flexible and recurved (staminate flower) or spreading to ascending and wiry (pistillate flower). **Staminate flower:** radial, 8–9 mm across, pendent; **sepals** 4(–5), outer pair slightly overlapping

inner pair, cupped-obovate with acute tip, 4.5–5 × 2.2–2.7 mm, yellowish or tinged purplish with several raised veins from base and often purplish, central vein unbranched to tip, lateral veins sometimes branched on outer side, entire or remotely jagged; **petals** absent; **stamens** 15–35, helically alternate, free, pendent; filaments before anther dehiscence ca. 2 mm long and light yellow, becoming threadlike and elastic, at pollination 4–8 mm long, often aging purplish; anthers basifixed, dithecal, 3.5–4.5 mm long including abrupt tip at least 0.5 mm long, light yellow with purplish red tip, longitudinally dehiscent; pollen light yellow, copious; **pistil** absent. **Pistillate flower:** ± radial, 3–3.5 mm across, ascending; **sepals** 4, spreading, wedge-shaped ovate with acute tip, 1.5–4 × 1–1.5 mm, green, sometimes persistent; **petals** absent; **stamens** absent; **pistils** 15–24, free, helically alternate, spreading to ascending, to 4.5 mm long at pollination; ovary superior, sessile or subsessile, somewhat claw-shaped to broadly ellipsoid strongly compressed side-to-side, 1.5–2 mm long, green, with some glandular hairs, 1-chambered with 1 ovule attached at top; style tentaclelike and hooked inward with conspicuous purple-red on inner side of style, short-papillate and to 0.25 mm wide at base. **Fruits:** achenes, to 20 per flower with aborted pistils appearing with ripened fruits, 1-seeded, hatchet-shaped and compressed-lenticular with 2 sharp edges, body 4–8 × 3–3.5 mm, leathery, slightly inflated, veiny with netlike pattern on each face; beak (style) ± appressed to top edge of fruit, ca. 2 mm long, persistent. **Seed:** ellipsoid to almond-shaped, 2.5–3 × 1.2–1.3 mm long, brown. Late March–late May.

Native. Perennial herb growing in dense populations in wet ground adjacent to creeks. *Thalictrum polycarpum* is treated by some authors as a variety of *T. fendleri*, but the two species have too many differences to support that conclusion. *Thalictrum polycarpum* has a fresh fragrance because minute glandular hairs are essentially absent, and this species is easily distinguished in vegetative condition because the veins are sunken on the upper surface of the blades. Its stamens have yellow filaments that age purple after pollen has dispersed. The achene of *T. polycarpum* is leathery and veiny in a netlike pattern, and fruit set is high, so that most achenes contain a fertile seed.
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