

*Pentagramma triangularis* (Kaulf.) Yatskievych, Windham, & E. Wollenweber subsp. *triangularis*, GOLDBACK FERN. Perennial herb, rhizomatous, fibrous-rooted, rosetted with clumped leaves, dying back during the dry season, 6–25 cm tall; shoots with several–many ascending leaves, glabrous; young fiddleheads 3 mm across; rhizomes shallow, short-creeping to ascending, scaly, the scales awl-shaped, 2–3 mm long, dark brownish with paler, scarious margins, axis in  $\times$ -section dark brown with dissected vascular system as a yellowish white ring interrupted by dark brown spokes from center to periphery. **Leaves (fronds):** helically alternate, pinnately dissected with < 10 paired segments, long-petiolate; petiole (stipe) cylindric, 70–250 mm long (scaling with blade length), purplish red to red-brown, with several awl-shaped scales at base; blade broadly ovate to deltate-ovate or pentagonal in outline, 25–100  $\times$  20–90 mm, pinnately dissected (pinnately compound) at blade base and pinnately lobed above; rachis-midrib channeled, narrowly winged basally; petiolules in range absent; primary segments or primary leaflets opposite to subopposite, the broadest at base and decreasing upward, broadly attached; lower segments divided almost to midrib and resembling leaflets, each segment lobed with alternate to subopposite lobes, along midrib lobes becoming progressively shorter and approaching tip becoming semicircular or appearing crenate, rounded at tips, principal veins shallowly sunken on upper surface and raised on lower surface, upper surface dull green, lower surface with granules secreted from glands (farina), the farina yellowish and evenly distributed and hiding veins, whitish scales absent; the lowest pair of segments or leaflets asymmetric with lower lobes pointing to frond base and >> lobes pointing toward leaf tip. **Sori:** absent. **Sporangia:** appearing scattered but occurring along all minor veins of lobes on lower surface, light brown to tan with reddish brown rinklke dehiscence mechanism (annulus), 64-spored. **Spores:** distinctly 3-sided, light brown to tan. Sporulation early spring.

Native. Perennial herb occurring commonly throughout the range growing on wet soil, in southern oak woodland and in rock crevices of chaparral where moisture is sequestered during spring. *Pentagramma triangularis* forms new leaves during winter and early spring, and becomes dormant during drought. Its leaf is very distinctive because the lower surface is covered with waxy exudate that is light yellow, hence the vernacular name goldback fern. The midrib in most of our specimens is winged, therefore the fronds are generally not truly pinnately compound. On some of the largest fronds, the midrib between the lowest segments is not winged but is prominently ribbed.

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