Polycarpon tetraphyllum (L.) L. subsp. ***tetraphyllum***, FOURLEAF MANYSEED, FOUR-LEAVED ALLSEED. Annual, taprooted, several–many-stemmed at base, mat-forming without adventitious roots, decumbent to prostrate, 3–15 cm tall; shoots ± 2-dimensional (plagiotropic), glabrous. **Stems:** 10–20-ridged, < 1.5 mm diameter, the ridges descending from leaf bases and beaded, green to rose-red, the beads colorless and consisting of cells with axially elongate papillae. **Leaves:** opposite but at many node appearing as a whorl of 4 leaves (an unexpanded axillary shoot at that node produces a pair of smaller leaves), simple, petiolate, with stipules; stipules 2 per node, attached to stem, narrowly triangular to deltate-acuminate, 1.8–2.8 mm long, membranous becoming silvery scarious, often split from tip to base, persistent; petiole 5-ridged on lower side, 1–4 mm long, the ridges beaded like ridges on stem and along midrib; blade broadly elliptic or obovate to ovate or roundish, 2–12 × 1–7(–10) mm, broadly tapered at base, entire, obtuse to rounded at tip, pinnately veined with only midrib conspicuous, dull green, lower midrib with 1–5 rows of beaded-papillate cells. **Inflorescence:** dichasial cyme, terminal and axillary, typically dense, several– > 30-flowered (1-flowered), bracteate, glabrous; peduncle stemlike with beaded ridges; bract subtending lateral branch or branchlet stipulelike, lanceolate, membranous becoming scarious; bractlet subtending pedicel like bract; pedicel mostly 1–2.5(< 5) mm long, with beaded ridges. **Flower:** bisexual, radial, 1.5–2 mm across increasing in fruit; hypanthium beneath pistil saucer-shaped, ± 0.8 mm diameter, green, narrowly rimmed; **sepals** (4–)5, unequal, lanceolate to ovate, 1.8–2.5 mm long increasing to 3 mm in fruit, short-awned, mostly green aging reddish purple on herbaceous tissue, strongly keeled, the keel 0.3–0.5 mm wide and deep, margins whitish membranous and ± 0.3 mm wide at base narrowing to tip, continuous across tip and making sepal ± hoodlike, the awn subterminal, 0.3–0.7 mm long, continuous with keel, whitish to semi-translucent due to papillate-serrate cells; **petals** (4–)5, formed on hypanthium rim, ± elliptic to narrowly ovate or oblong, 0.7–1.1 × ± 0.4 mm, whitish, acute to truncate or short-notched at tip, wilting quickly; **stamens** 3, free, formed on hypanthium rim, included; filaments appressed to ovary, < 0.5 mm long, colorless or whitish; anthers basifixed, dithecal, heart-shaped, ± 0.2 mm long, yellow, longitudinally and inwardly dehiscent; pollen yellow; **pistil** 1, < 2 mm long, on a minute stalk (stipe); ovary superior, broadly ovoid, pale green, 1-chambered with many ovules attached to center post and base; style < 0.3 mm long, with 3 obscure branches; stigmas minute. **Fruit:** capsule, short-stalked, loculicidal, dehiscing by 3 twisting valves, typically 10–16-seeded, broadly ovoid, 1.7–2 × 1.1–1.2 mm, with seeds attached to placentae at base; hidden by persistent calyx. **Seed:** D-shaped, 0.6–0.7 × 0.4 mm, light tan, blisterlike. Early April–late July.

Naturalized. A spring annual appearing occasionally in SMM and forming small mats, especially along roads and parking lots where water drains, often in shade but doing well also in full sun. *Polycarpon tetraphyllum* has opposite leaves, but a node appears to be four-leaved because one axillary bud precociously produces shoot with its first pair of leaves without forming an internode, and many authors have mistakenly called this whorled. Flowers in our populations often appear to never open, but they probably open for a short time before the petals wither; every flower is self-pollinated and produces a capsular fruit, ensuring that the species will persist at the same site. Around homes, this strategy is a successful one for growing in cracks of concrete and thereafter persisting, as

long as there is adequate fall and winter rain to germinate the seeds. Plants often turn rose-red as the soil dries and temperatures increase.
B. A. Prigge & A. C. Gibson