

*Plagiobothrys* Fisch. & C. A. Meyer POPCORNFLOWER

*Plagiobothrys nothofulvus* (A. Gray) A. Gray, RUSTY POPCORNFLOWER, FOOTHILL SNOWDROPS. Annual, taprooted, conspicuously rosetted, 1(–several)-stemmed at base, inflorescences ascending to erect, 15–65 cm tall; shoots with horizontal basal leaves and appressed cauline leaves, with a basal rosette present while in flower, villous (not hispid), turning purplish red when aging or dried; taproot aging purplish red. **Stems:** ± cylindric, to 3 mm diameter, often with a pair of conspicuous ridges descending from each lower cauline leaf continuing through 2 internodes, villous. **Leaves:** helically alternate, simple, sessile, without stipules; blade of basal leaves oblanceolate, 17–110 × 3.5–17 mm, tapered to base, entire and sometimes wavy on margins, acute at tip, pinnately veined with midrib raised on lower surface, coarsely villous with scattered hairs having low-bulbous bases, purplish red along midrib and margins; blade of cauline leaves oblanceolate grading to narrowly elliptic and lanceolate above, 7–80 × 1.8–14 mm, tapered to base and base appressed to stem, entire and often wavy on margins, acute at tip, pinnately veined with midrib raised on lower surface, purplish red along midrib and margins. **Inflorescence:** racemelike cyme, terminal, 40–80+ mm long, many-flowered, commonly forked at base with 1 flower and 1 bract at fork, lateral axes typically unbranched, hirsute; bract subtending several of only the lower flowers, leaflike, 3.5–5 mm long; pedicel 0.5–1 mm long. **Flower:** bisexual, radial, 5–7.5 mm across; **calyx** 5-lobed, bell-shaped, 2.5–3 mm long, densely hirsute with ascending hairs typically having rusty brown bases or entire hair pigmented (unpigmented), hispid along midvein below midpoint, abscised along circumference in fruit (circumscissile); lobes equal, tapered, 1.2–2 mm long increasing to 2.5 mm long in fruit; **corolla** 5-lobed, trumpetlike (salverform), white, in bud with 5 minute dimples on throat opposite calyx lobes; tube 1.5–1.8 × 0.7–1.3 mm, white, internally with 10 appendages around base; throat initially ± 0.5 mm wide expanding to ± 2.5 mm at base of lobes, with 5 raised, linear ribs alternate with lobes and extending length of throat, with 5 pads at base of throat and opposite lobes, each pad ± 2-lobed, mostly white but yellow on lower part, densely bristly-papillate; lobes spreading, roundish, 1.5–2.6 mm long, slightly wider; **stamens** 5, fused to corolla tube above thickened base, included; filament ca. 1/2 length of anther, white, compressed side-to-side; anthers dorsifixed, dithecal, ± 0.6 mm long, orangey yellow, longitudinally dehiscent; pollen orangey yellow; **nectary** not evident; **pistil** 1, on a fleshy, conic receptacle; ovary superior, deeply 4-lobed, lobes hemi-spheroid, green; style arising in center between lobes, ± 0.5 mm long; stigma capitate. **Fruits:** nutlets, 1–3, horizontal and strongly attached until ripe, ovoid, 2–2.6 × 1.5–1.7 mm, dark brown (beige) with beige warts, abruptly narrowed below acute tip, strongly ribbed, areas between ribs minutely papillate; central rib continuous from tip to base on outer side, warty on beak below midpoint, zigzagged over body of fruit; marginal ribs often warty; transverse ribs 4–5, typically not warty and not continuous across central rib; inner side keeled on beak, the scar where fruit attached to base slightly raised, ± teardrop-shaped to triangular, rimmed around basal portion with ovary tissue, with a circular to vertically elliptic vascular bundle scar near tip. Late January–early April.

Native. Annual found in relatively undisturbed grassland and open habitats with other native annuals and perennial herbs, mainly occurring in the central and eastern portions of the range, and during wet years occurring in dense local populations. *Plagiobothrys nothofulvus* varies greatly in size at a single location, but each plant always has a well-defined basal rosette while flowering. This species can initially be confused with the large-flowered species of *Cryptantha*, before immature or mature fruits are present. Two characteristic early features of *Plagiobothrys* are the rusty brown hairs on the calyx and purplish red pigmentation in the roots, old leaves, and to a lesser degree on leaf blade margins and along the lower midrib. Less than four nutlets of a flower mature, and they are horizontally positioned; moreover, in this species the upper portion of the calyx abscises cleanly around the circumference (circumscissile) to reveal the mature nutlets.

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