

Sairocarpus D. A. Sutton NEW WORLD SNAPDRAGON

Sairocarpus coulterianus (A. DC.) D. A. Sutton, COULTER'S SNAPDRAGON, WHITE SNAPDRAGON. Annual, taprooted, with tendril-like branches, typically not rosetted (robust individuals after burns rosetted), 1(–several)-stemmed at base, slender lateral branches often twining on long first internode, erect, (12–)35–170 cm tall; shoots with small basal leaves at several congested nodes and several–many cauline leaves, essentially glabrous but densely glandular-pubescent in inflorescence; tendril = a spreading to ascending lateral branch with a slender stem able to twine around other plants and having highly reduced leaves on nodes near its tip, later with more slender axillary branches from 1 or more subterminal nodes. **Stem:** cylindric, to 7 mm diameter, glossy green to red-purple, easily broken, internodes of principal axis to 80 mm long, on the basal 1–2 internodes sparsely short-villous; of tendril slender, < 1 mm diameter, first internode to 120 mm long. **Leaves:** opposite decussate (lower nodes and often basal node of each tendril and tendrilar branches) and helically (cauline leaves), petiolate (basal leaves of principal axis) and sessile with pair of basal leaves connected as low ledges across node, without stipules; petiole channeled, to 30 mm long, grading into leaf blade, sometimes sparsely short-villous; blade oval to elliptic (basal leaves) to lanceolate, linear-lanceolate, or linear (cauline leaves), along principal axis to 110 × 23 mm, gradually reduced upward, of tendrils to 10 mm long, blades tapered at base, entire, acute to rounded at tip, inconspicuously pinnately veined with midrib raised on lower surface, glabrous, often glossy. **Inflorescence:** raceme, terminal on main shoot and lateral branches (larger plants), at anthesis 110–170 × 12–15 mm increasing in fruit, many-flowered, dense on young portion and often becoming 1-sided by reorientation of flowers, bracteate, pilose-glandular hairy, sometimes with twining, sterile lateral branches; bractlet subtending pedicel linear to elliptic or oblanceolate, < 5 × 1 mm, tapered to long-tapered at base; pedicel suberect to erect, 1.5–6.5 mm long increasing 2× in fruit, often appressed to rachis and thereby positioning flowers to the same side of rachis, pilose-glandular. **Flower:** bilateral, bisexual, 8–15.5 mm across, 7.5–13.5 mm tall; **calyx** 5-lobed, densely pilose-glandular on outer surface, fused ± 0.2 mm at base; lobes subequal, lanceolate to elliptic, 3–4.7(–6.4) × 0.7–1.4(–1.8) mm, with short, red-purple point at tip; **corolla** 2-lipped, 5-lobed, 8–11(–12) mm long, whitish to pale pink, glandular-pilose on lower surfaces exposed in bud; tube 4.3–4.5 mm long, ± 1.7 mm wide at base, expanded and saclike on lower side at base, tapered toward and constricted below orifice by invagination of lower surface, ± 2.2 mm wide at orifice but with ceiling and floor of tube appressed laterally at orifice but leaving a tubular opening in center, the sac 3.2–4.2 mm long and 1–1.8 mm tall; upper lip 2-lobed, ± appressed medially below lobes, lobes oblong to obovate, 2.7–5 × 1.5–3.5 mm, rounded at tip, diverging upward and commonly with a 1/4 twist (orienting face of lobe forward); lower lip 3-lobed from an inflated palate, palate ± hemispheric, 4–5.5 × 3–6.5 mm (excluding lobes), whitish to pale pink, net-veined, grooved medially from orifice outward to ca. 3/4 of length (not reaching lobe), with discontinuous, dark purple nectar guides along veins near groove, glabrous to sparsely pubescent but densely glandular-pubescent near orifice, lateral lobes semicircular, 2.1–2.4 × 3–3.5 mm, spreading, rounded at tip, central lobe semicircular, 2.2–2.7 × 3–3.3 mm, pointed backward or downward as a continuation of the curved palate or sharply bent upward and appressed to palate, bluntly

rounded or slightly notched at tip, pilose on abaxial face; **stamens** 4, lacking staminode, attached to base of corolla tube; filaments oblanceolate, 4–4.3 × 0.8 mm and flattened approaching anther (lower stamens), linear but slight expanded below anther, 2.6–2.8 × 0.3 mm (upper stamens), white, hairy at base, papillate-glandular on margins; anthers scarcely exerted from orifice, dorsifixed, dithecal, ± circular, 0.3 mm diameter, dark purplish red, longitudinally dehiscent with sacs spreading ± ⊥ filament (peltately explanate); pollen yellow; **nectary** beneath ovary, ringlike, ca. 0.6 mm tall, green; **pistil** 1, superior; ovary conic from an oblique base, 1.8 × 1.4 mm, green but purplish red at base of style, hirsute to villous with stalked glandular hairs, unequally 2-chambered, upper chamber with 18–20 ovules and lower chamber with 50–65 ovules attached to center; style narrowly conic and straight, 2–2.3 mm long, white but purplish red below stigma, hirsute with stalked glandular hairs; stigma weakly 2-lobed or 2-conic, white, densely but minutely papillate. **Fruit:** capsule, partially dehiscent, forming 2 pores at top (= lower chamber) and with an indehiscent upper chamber, many-seeded, oblique-ovoid, 5–10 × 3–4 mm. **Seed:** ovoid, 0.7–1.1 × 0.5–0.7 mm, black or brown, deeply netlike to ridged with ± longitudinally oriented, broken ridges. Late April–late June.

Native. Annual occasionally encountered on grassy slopes and recent burns in chaparral and coastal sage scrub. *Sairocarpus coulterianus* is also known as *Antirrhinum coulterianum*. If the snapdragons are split into several genera, the New World species of *Sairocarpus* are most closely related to *Neogaerrhinum*, and likely should be combined as one genus under that name. Coulter's snapdragon has slender, tendril-like lateral branches that twine around adjacent annuals for extra support. Leaf area per plant is low, so that stems probably play a role in photosynthesis of this species. The bilateral flowers of *S. coulterianus*, which are mostly pale pink, which are difficult to describe thoroughly and very distinctive, and they cannot be confused with any other species in the flora. Short plants with very small flowers can be found in range, probably individuals that germinated late in the year and which are flowering during drought. The fruit is a capsule, but the upper chamber is indehiscent while the lower chamber dehisces by pores to release the ornately sculptured seeds, which may be either black or brown.

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