

Astragalus L. MILKVETCH

Astragalus brauntonii Parish, BRAUNTON'S MILKVETCH. Perennial, winter-deciduous, shrublike, with short-lived ascending branches, to 150 cm tall; shoots grayish, densely tomentose with white, shaggy hairs. **Stems:** appearing cylindrical but with low ridges hidden beneath matted white hairs, with ridges descending from each leaf; woody cylinder hollow. **Leaves:** helically alternate, odd-1-pinnately compound with 12–14(–16) pairs of subopposite lateral leaflets, petiolate, with stipules; stipules 2, attached to petiole and to stem via ridges, reflexed, long-acuminate, 6–9 mm long, inrolled below midpoint on margins, exposed (upper) surface yellow-green and glabrous, the ridge sparsely pubescent with brown hairs; petiole to 25 mm long; rachis tomentose; blade lanceolate in outline; petiolules ≤ 1 mm long, light green; blades of lateral leaflets lanceolate-ovate to elliptic, 5–20 \times 2–7 mm, the largest at base decreasing to tip, entire, \pm rounded with a short tooth at tip formed from end of leaflet midrib, terminal leaflet obovate with notch at tip, pinnately veined with midrib raised on lower surface. **Inflorescence:** raceme, axillary, $>$ leaf, 35–60-flowered, bracteate, white-villous; peduncle 35–85 mm long; bractlet subtending pedicel awl-shaped, 4.5–6 \times 0.5–1 mm, green, membranous on margins, persistent; pedicel curved, 1.5–2.5(–4) mm, green. **Flower:** bisexual, bilateral, pealike (papilionaceous), ± 5 mm across, 9.5–10.5 mm long; **calyx** 5-lobed, villous; tube cup-shaped, 3–4 \times 2.3–3.4 mm, green but turning reddish on exposed surfaces; lobes subequal, narrowly awl-shaped, 2.8–4 mm long, typically reddish at tip; **petals** 5, reddish purple to purple (fading rapidly to dull lilac), persisting withered; banner obovate, 8.5–10 \times 4.5–6.8 mm, white or creamy white at base, strong purple above, rounded and shallowly notched at tip, erect above midpoint and \pm recurved on upper margins, with 10–14 strong purple veins extending into creamy white central area down the inner surface and several more veins in pigmented areas lateral to central area; wings 2, clawed, \pm oblanceolate, 9.5–10.5 \times 2.8–3.1 mm, claw 3.5–4 mm long, limb with backward-pointing lobe 1–1.5 mm long and an invaginated short lobe pointing forward and downward on inner surface locking in with dimple in keel; keel of 2 petals free at base and fused most of length, 7.2–7.9 \times 2.8–3 mm, claw 3.5–4 mm long, mostly whitish or creamy white but pale purple and rounded at upturned tip, pair of dimples in front of backward-pointing lobes; **stamens** 10, diadelphous (9 filaments fused and 1 free); filament sheet surrounding pistil 5.5–7.2 mm long, pale green, free portions of filaments arching upward 90° approaching keel tip; anthers dorsifixed, dithecal, ellipsoid to lanceoloid, 0.4–0.6 mm long, orange-yellow, longitudinally dehiscent; pollen yellow, copious, sticky; **pistil** 1, 6–7 mm long; ovary superior, lanceoloid, 2–2.5 mm long, densely covered with white, \pm straight, upward-pointing hairs projecting through claws of keel, 2-chambered, each chamber with several ovules attached to upper side; style arching upward, pale yellowish green, white-strigose at base, glabrous above midpoint; stigma capitate, green. **Fruit:** pod (legume), indehiscent, to 6-seeded, oblong and strongly recurved, $<$ 10 mm long, pubescent, 2-chambered. **Seed:** irregularly kidney-shaped, ± 1.5 mm long, mottled brown, low netted with smooth ridges. Late April–early June.

Native. Listed species. A short-lived, shrublike perennial occurring in very small and widely isolated populations, often in recently burned or disturbed chaparral of SMM and SH on ancient calcareous soils. The endangered species *Astragalus brauntonii* seems to benefit from fire or occasional, random soil surface disturbance, but then declines over time but surviving in the seed bank. *Astragalus brauntonii* is easily recognized as the gray, densely hairy milkvetch. Braunton's milkvetch is exceedingly rare and should not be harmed. It grows in sandstone regions, but unfortunately prefers to colonize along trails, where, of course, Braunton's milkvetch is susceptible to damage from hikers. At least one crew trimming brush along a hiking trail in Oak Park (SH) removed an individual because its value was not recognized. The raceme is longer than the associated leaf, and its flowers are reddish purple to purple, but one pigment fades rapidly so that descriptions based on dried materials have incorrectly described flower color as dull lilac. B. A. Prigge & A. C. Gibson