

Helianthemum Miller SUN-ROSE, RUSH-ROSE

Helianthemum scoparium Nutt., PEAK RUSH-ROSE. Subshrub, many-stemmed at base and highly branched throughout, with persistent, green stems (photosynthetic) forming hemispheric canopy, in range 12–45 cm tall; shoots only with leaves when actively growing, soft-puberulent, the hairs short-stellate and brownish. **Stems:** cylindrical, photosynthetic stems < 1 mm diameter, sparsely stellate-puberulent; bark on old and lower stems semi-glossy reddish brown. **Leaves:** helically alternate, simple, subsessile, without stipules; petiole < 1 mm long, pale green; blade linear, 5–20(–40) × 0.5–1.5(–6) mm, long-tapered grading to petiole, entire, acute at tip, only midrib visible and sometimes sunken on upper surface and conspicuously raised on lower surface between raised leaf margins, dull, at maturity sparsely puberulent. **Inflorescence:** cyme resembling panicle, terminal and axillary, open, several–many-flowered, bracteate, stellate-puberulent; bract subtending branchlet opposite pedicel, leaflike, to 10 mm long, early-deciduous; pedicel ascending, 2.7–4.5 mm long increasing 2× in fruit, with scattered stellate hairs. **Flower:** bisexual, radial, in range 7–12 mm across, dish-shaped; **sepals** 5, appearing 5-lobed on a cuplike base 0.5 mm long (receptacle), dimorphic, green becoming purplish red tip toward base, stellate-puberulent; 2 outer sepals resembling bracteoles, narrowly linear, (0.5–)1–2.2 × 0.2–0.3 mm, 3 inner sepals broadly attached to receptacle, overlapping, ovate, in range 2.7–3.2 × 1.8–2.5 mm, membranous on margin covered in bud, acute at tip, with scattered, minute glandular hairs; **petals** 5, obovate to ± fan-shaped, in range 4.6–5.8 × 2.7–4.5 mm, bright yellow with faint veins, narrow at base, rounded to obtuse or broadly acute at tip (irregularly toothed), glabrous; **stamens** 10 or 15, free and attached to rim of nectary; filaments spreading, of differing lengths, 0.8–1.5 mm long, greenish yellow, anthers basifixed, dithecal, 0.25–0.4 mm, yellow-orange, the sacs separated by deltate connective and each sac obovoid to ellipsoid, longitudinally dehiscent; pollen yellow-orange; **nectary disc** beneath ovary, saucer-shaped to flat, 0.4–0.6 mm diameter, light green; **pistil** 1, 1.5–1.7 mm long; ovary superior, (2–)3(–4)-lobed spheroid, 0.8–0.9 mm, light green, glabrous, 1-chambered with 5–12 ovules attached to wall; style stout, 0.6–0.7 mm long; stigma terminal, white, conspicuously papillate-hairy. **Fruit:** capsule, loculicidal, dehiscent by (2–)3(–4)-valves, to 11-seeded, ovoid–spheroid, 2.5–3 × 2.3–2.5 mm, tannish brown to reddish brown, valves opposite the persistent, brown inner sepals and hidden by them. **Seed:** ± ovoid to irregular spheroid, rounded on 1 face, flattened on faces with neighboring seeds, sometimes flat at base, 1.5–1.7 × 1.1–1.5 mm, dull blackish brown, extremely hard, minutely cobblestone on faces with some light-colored projections along edges. Late December–late June.

Native. Subshrub throughout the range growing on sandstone, e. g., Sespe Formation, but at scattered locations and usually widely spaced in local populations but sometimes on recent burns occurring in dense populations. *Helianthemum scoparium* probably soon will be reclassified in a different genus, based on molecular studies; it is one of the “broom” species, having stiff green stems with inconspicuous, short-lived leaves, so that stems are the chief photosynthetic organs. Flowers are bright yellow, but they are fairly delicate and often lose petals and stamens when handled. Sepals are dimorphic, in that two are slender structures and three are broad and overlapping, and these sepals persist and later conceal

the fruit. Following a rainy fall, peak rush-rose can be found in flower locally during winter months, but typically rush-rose flowers during springtime.

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