

of herbarium specimens was 70–100%. Pollen was 4–6-pored, and modally larger in diameter than the pollen of either of the two known polyploids (SQU and JUN). It is likely, therefore that INS is polyploid. The most recent collection, by Reid Moran in 1976, reported a single colony of about 100 individuals on steep west slopes in the southern part of the south islet (listed in field notes as *M. coulteri*).

4. ***Malacothrix junakii*** W. S. Davis sp. nov.—TYPE: USA, California, Ventura Co., Anacapa Island, middle island, west-facing slope with *Coreopsis gigantea*, *Eriogonum grande*, extreme tip of Sea Arch Peninsula, distal from Arch, 2 June 1978, *Philbrick B78-327* (holotype: SBBG!, top left specimen; isotype: DHL!).

Plantae annuae, 5–30 cm altae. Caulis unicus vel aliquot e radice palari oriens, supra ramosus, ascendens vel arrectus, viridis vel mediocriter ruber, glaber. Folia basalia 4–10 cm longa, 5–20 mm lata, oblanceolata, in dimidio distali dentibus 2–3 vel lobis pinnatis 2–4 in segmenta brevia obtusa divisis instructa. Folia caulina late lineari-lanceolata, pinnatim 2–4-lobata, lobis angustis et longitudine subaequalibus praedita; folia superna in base in 1–2 segmenta angusta acuta pinnatim divisa, in marginibus partis  $\frac{2}{3}$  distalis integra. Capitula sub anthesi 3–6 mm lata, in base rotundata; involucrem 7–8.5 mm altum; phyllaria exteriora 7–11, lanceolata vel ovata, 1.2–3.5 mm longa, 1–1.5 mm lata, plerumque phyllariis interioribus 2plo breviora, viridia vel rubro-tincta, marginibus hyalinis scariosis <0.3 mm latis instructa; phyllaria interiora 9–13, lineari-lanceolata, 5–7 mm longa, 1–1.6 mm lata, acuta. Receptaculum setis paucis gracilibus nudis <0.6 mm longis armatum. Flosculi 20–85; corollae 7–11 mm longae mediocriter flavae; ligulae flosculorum extimorum 1.4–2 mm latae, trans involucrem 3.5–5.5 mm exsertae; stamina 5–6.2 mm longa; ramuli styli 0.4–0.7 mm longi. Fructus 1.6–2 mm longus, cylindrico-fusiformis, in base angustior quam in apice subconstricto truncato, plerumque atro-fuscus, aequaliter 15-costatus vel leniter 5-angulus; pappus exterior dentibus perbrevis irregularibus armatus e setis 1–2 persistentibus nudis usque 4 mm longis compositus. Autogamae.

Plants annual, 5–30 cm tall. Stems one to several from a taproot, branched above, ascending to erect, green to medium red, glabrous. Basal leaves 4–10 cm long, 5–20 mm wide, oblanceolate, distal  $\frac{1}{2}$  with 2–3 teeth, or pinnately 2–4-lobed with short, obtuse segments. Cauline leaves broadly linear-lanceolate, pinnately 2–4-lobed, lobes narrow and approximately equal in length; uppermost leaves pinnately 1–2-parted at the base into narrow, sharp segments, margins of the distal  $\frac{2}{3}$  entire. Heads 3–6 mm wide at anthesis, base rounded; involucre 7–8.5 mm high; outer phyllaries 7–11, lanceolate to ovate, 1.2–3.5 mm long, 1–1.5 mm wide, generally  $\frac{1}{2}$  as long as inner

phyllaries, green to red-tinged, hyaline scarious margin <0.3 mm; inner phyllaries 9–13, linear-lanceolate, 5–7 mm long, 1–1.6 mm wide, acute. Receptacle with few thin, naked bristles <0.6 mm long. Florets 20–85; corollas 7–11 mm long, medium yellow; ligules of outermost florets 1.4–2 mm wide, exerted 3.5–5.5 mm beyond the involucre; stamens 5–6.2 mm long; style branches 0.4–0.7 mm long. Fruit 1.6–2 mm long, the base narrower than the slightly constricted truncate apex, generally dark brown, equally 15-ribbed or somewhat 5-angled; outer pappus of very short irregular teeth and 1–2 persistent naked setae to 4 mm long. Self-compatible.  $2n=28$ .

*Paratypes* (\* progenies from wild achenes propagated in growth chambers). USA, California: Ventura Co., Anacapa Island, moist sheltered pocket, 19 May 1928, *Howell 3795* (CAS); middle island, Lavatera Cove, ca. 75 ft, 23 April 1982, *Junak MA-60* (SBBG)\*; middle island, slopes above East Fish Camp, on east edge of major gully running down to shoreline, south side of island, rare on open south-facing slope, 80 ft, 29 April 1986, *Junak MA-145* (DHL, SBBG)\*; middle island, onshore slope, at foot of Sea Arch Peninsula, west of Sheep Camp, localized on flats and adjacent coastal bluffs, 80 ft, 22 April 1986, *Junak MA-105* (DHL, SBBG)\*.

5. *Malacothrix squalida* Greene, Bulletin of the California Academy of Sciences 2:152. 1886.—*Malacothrix foliosa* var. *squalida* E. Williams, American Midland Naturalist 58:507. 1957.—*Malacothrix insularis* var. *squalida* Ferris, Contributions from the Dudley Herbarium 5:102. 1958.—TYPE: USA, California, Santa Barbara Co., rocky promontory above Prisoner's Harbor, Santa Cruz Island, July and August 1886, *E.L. Greene s.n.* (holotype: CAS!; isotypes: DS!, ND-G!, NY!, UC!).

Plants annual from a taproot, 4–30 cm tall. Stems generally several from the base. Basal leaves oblanceolate, 4–14 cm long, 10–25 mm wide, with teeth or narrow, toothed sharp lobes. Lower cauline leaves similar to basal leaves but more deeply toothed or lobed; upper cauline leaves ovate to narrowly triangular, with 4–9 narrow, sharp, generally toothed lobes. Heads 6–10 mm wide at anthesis, base rounded. Involucre 9–12 mm high; outer phyllaries 12–26, ovate to broadly ovate, 2.5–7 mm long, 1.8–2.5 mm wide, with dark mid-veins, hyaline/scarious margins 0.5–1 mm wide and irregularly toothed; inner phyllaries 19–23, linear-lanceolate 6–9 mm long, 1.6–2.5 mm wide, green or reddish, hyaline/scarious margins <0.4 mm wide. Receptacle with scattered naked bristles 0.1–0.5 mm long. Florets 30–160; corollas 12–19 mm long, light yellow; ligules of outermost florets 2–3 mm wide, exerted 6–10.5 mm beyond the involucre; stamens 6–9.5 mm long; style branches 0.5–0.7 mm long. Fruit 1.5–2.2 mm long, medium to dark brown, 15-ribbed, 5-angled,