

Two new spermatophytes from California

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Oxytheca Abramsii sp. nov.

Acaulescent or nearly so, 7–18 cm. high or less, sparingly dichotomously branched: stems glabrous mostly, but glandular just above the axils, herbaceous, becoming later more wiry: leaves spatulate, gradually narrowed to a wide petiole, 1.25–3 cm. long, scabrous-margined and the midvein slightly scabrous beneath; bracts ternate, slightly unequal, mucronate, ovate-lanceolate, connate and deflected mainly to one side, 3 mm. long: involucre broadly obconical, on peduncles 1–1.5 cm. long, those from the main axils rarely 2.5 cm. long; involucre-tube 1.5–2 mm. high; awns 10 (rarely 12), very fine, weak, but straight, 4 mm. long or less, the interval between the involucre ribs much wider than the ribs: flowers 6–8, at length nearly equaling the awns; pedicels equaling the perianth, well exerted from the involucre-tube: perianth about 4 mm. broad, cleft to base, lobes equal, elliptical, 2 mm. long, white or pinkish with wine-red midvein, slightly glandular and scabrous beneath: stamens inserted on perianth at base, shorter than the segments: styles 3, capitate: ovary glabrous.

O. Abramsii is nearest to *O. Parishii*, from which it differs in the following characters:

O. Parishii: Involucre ribs very prominent, firm, with the intervals almost lacking; awns 18–20, 3 times length of tube, strong, stiff, wiry; umbels 5–14-flowered; stems pale-glaucous, wiry.

O. Abramsii: Involucre ribs barely discernible, with intervals much wider than ribs; awns usually 10, not greatly exceeding the tube, inclined to be weak and herbaceous, though straight; umbels 6–8-flowered; stems green or reddish, not wiry.

Topatopa Mountains, Ventura Co., California. Growing on slopes in loose shale, elev. 1700 m. Collected by Abrams & McGregor (no. 72), June 5, 1908.

Malacothrix arachnoidea sp. nov.

Perennial herb, with stout, freely branching, and very leafy herbaceous stem, 4.5–6 dm. high; herbage hoary throughout with

a dense woolly pubescence: leaves broadly lanceolate to linear-lanceolate, attenuate above, apiculate, tapering gradually below but sessile, and never at all auriculate or clasping, entire, or the

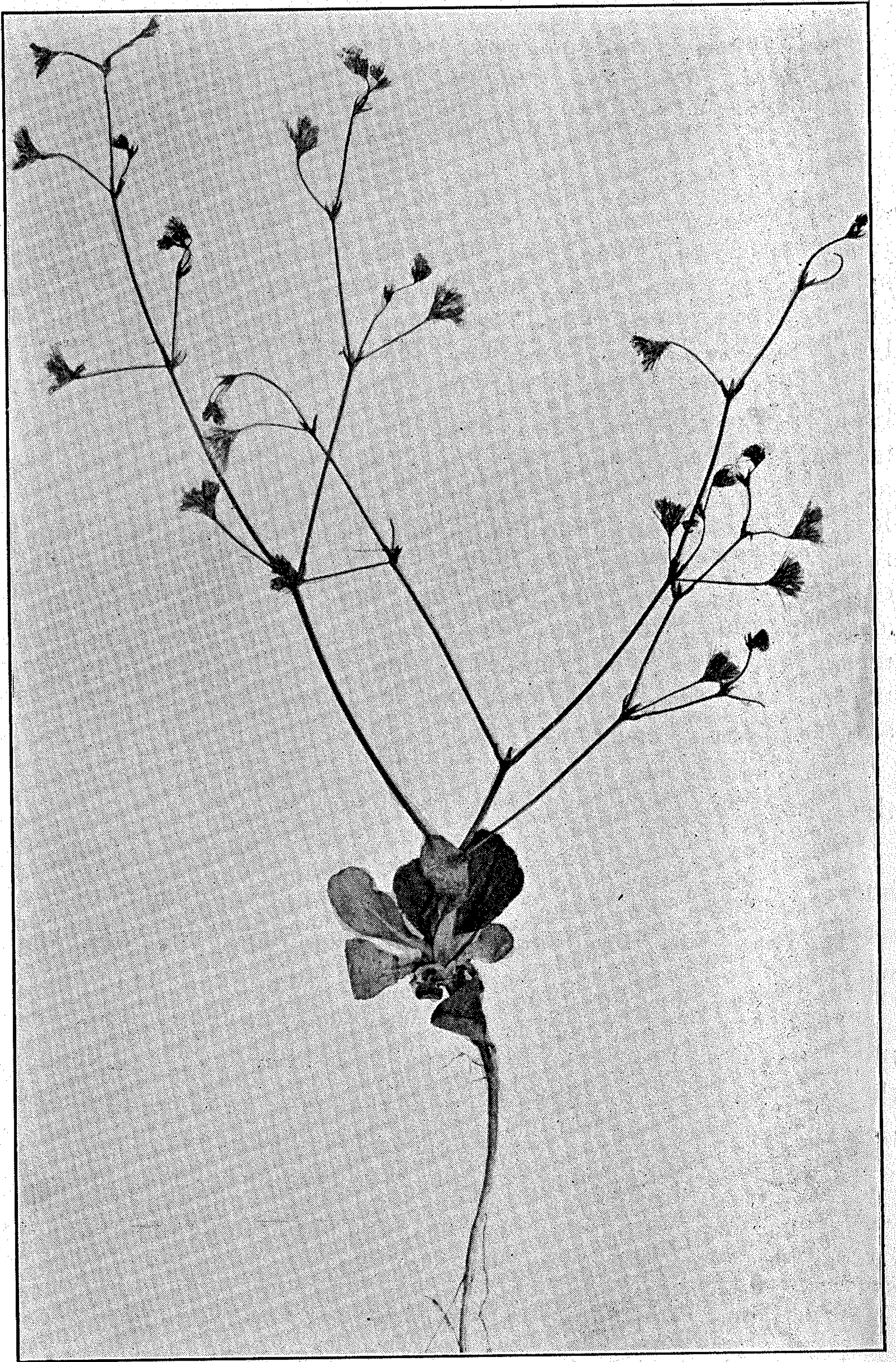


FIGURE 1. *Oxytheca Abramsii* McGregor. Natural size.

lower rarely remotely and obscurely dentate, 4-9 cm. long, reduced upward: heads terminating numerous branches, many-flowered; involucre 13-15 mm. high, hemispherical; bracts in about two series, becoming somewhat glabrate, the inner linear-lanceolate, acuminate, the outer similar but narrower and half as long; calyculate scales few: corolla white or pinkish; ligule 10 mm. long; tube 6 mm. long, puberulent on its upper third: achenes (not matured) broadly obovate-oblong, apparently 10-ribbed, the slightly contracted summit bearing a well-expanded crown whose rim is merely crenulate; pappus-bristles snow-white, all falling together.

Carmel Valley, Monterey Co., California; by the roadside. Collected by the writer (no. 1575), July 1, 1906.

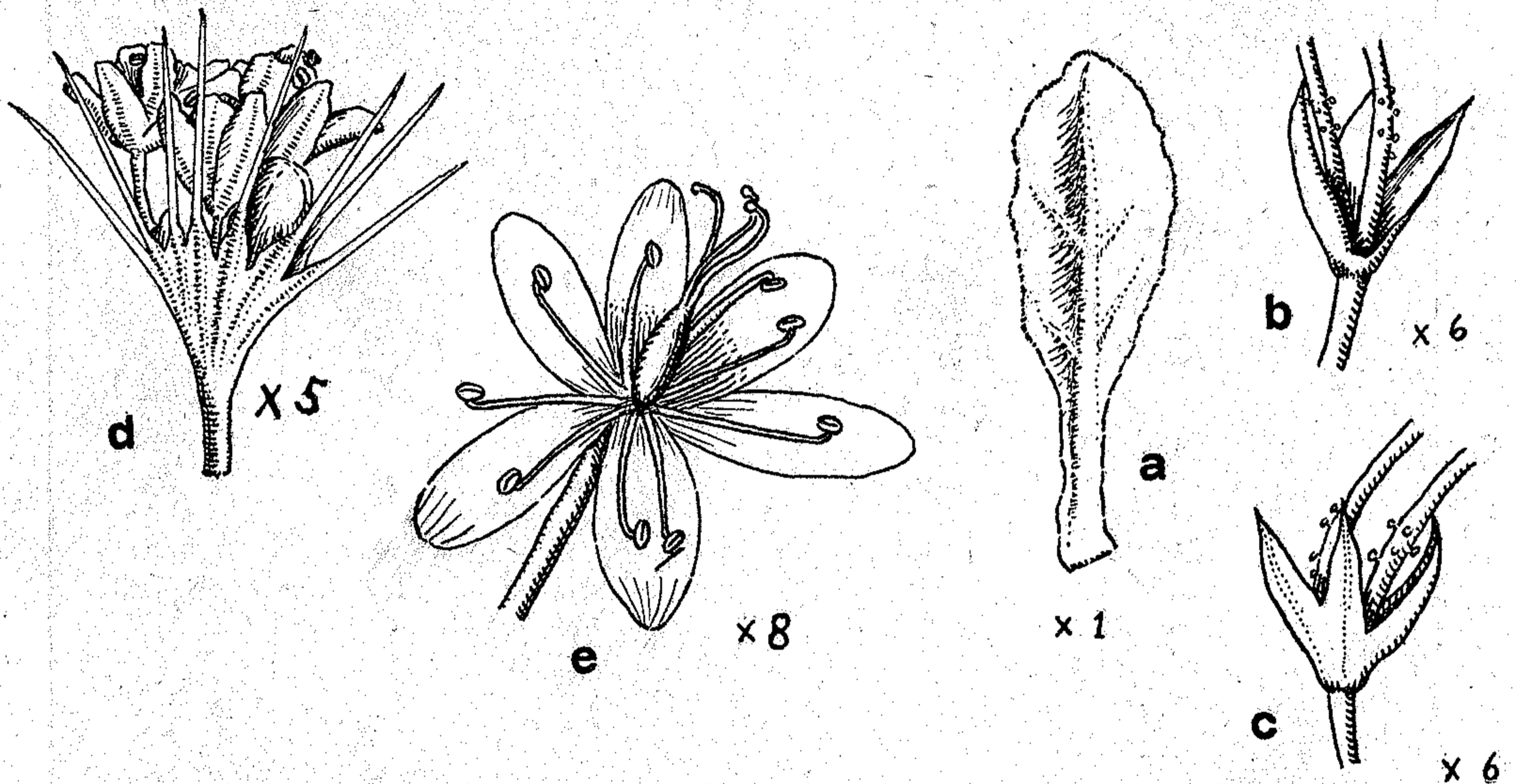


FIGURE 2. *Oxytheca Abramsii* McGregor; *a*, leaf, natural size; *b*, bract, from free side, $\times 6$; *c*, bract, from deflected side, $\times 6$; *d*, involucre, showing ribs, awns, and flowers, $\times 5$; *e*, flower laid open to show parts, $\times 8$.

This plant belongs to the *M. saxatilis* group, which includes *M. saxatilis* (Nutt.) Torr. & Gray, *M. tenuifolia* (Nutt.) Torr. & Gray, *M. altissima* Greene, and *M. implicata* Eastw.

On the whole these species are very closely related and form a very natural group, differing from the other members of the genus in the following characters: tall, leafy perennials; involucre scales in two appressed equal series; receptacle with no bristles; no persistent pappus-bristles. It would seem that they might well constitute at least a valid subgenus.

The characters of the flower and those of the achene of the different species are much alike, the important differences being

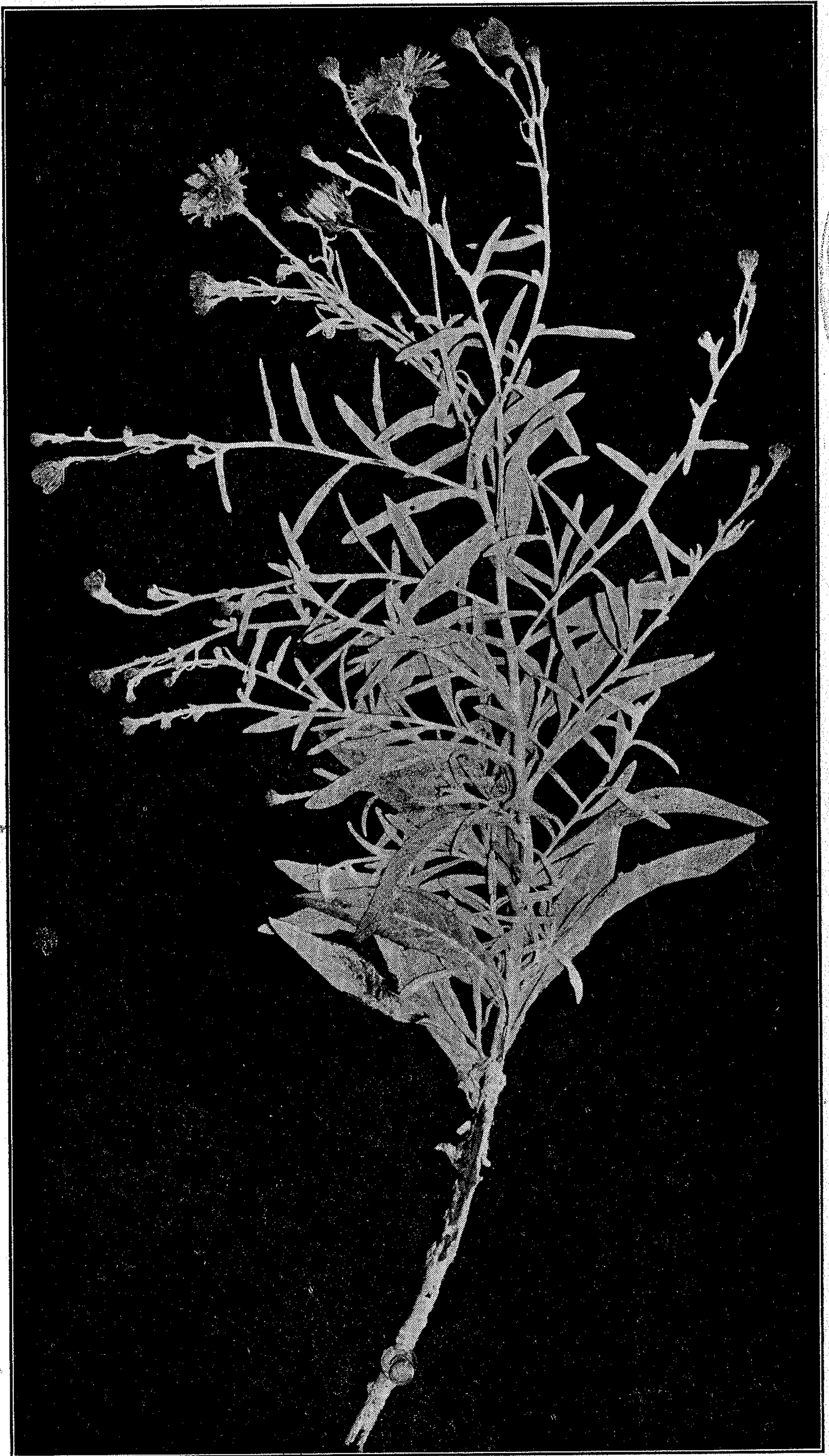


FIGURE 3. *Malacothrix arachnoidea* McGregor. One half natural size.

in the aspect of the plants and the form of the leaves which, for a given type, seem quite distinctive.

Malacothrix arachnoidea is nearest to *M. saxatilis*, from which it is to be distinguished as follows :

M. saxatilis: Green, often woolly on young parts ; leaves obtuse, lower occasionally pinnatifid, auriculate, and partly clasping toward the base ; calyculate scales very numerous ; achenes crowned with a denticulate border.

M. arachnoidea: Hoary throughout with a dense woolly pubescence ; leaves apiculate-acute, apparently never pinnatifid, auriculate, or clasping ; the well-expanded crown of the achene with a merely crenulate border.

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