Lincoln Co., NE of Caliente, 18 Jun 1944, *Ripley & Barneby 6360* (NY); Nye Co., 4 km up Rainier Mesa Road from Pahute Mesa Road, 8 Jun 1968, *Reveal 1197* (NY); White Pine Co., Spring Valley, Baking Powder Flats, 26 Jun 1964, *Holmgren & Reveal 1114* (NY, TEX, UTC).

Utah: Box Elder Co., Bear River Canyon, 20 Jun 1909, *Smith 1679* (UTC 2); Cache Co., Echo Canyon, 4 Sep 1937, *Garrett 7600* (KANU); 0.8 km NE of Providence Cemetery, 9 May 1936, *Maguire 13824* (NY, UC); Iron Co., 0.8 km SE of Cedar City, 23 Jun 1942, *Degener 16622* (NY, UC); Kane Co., 0.8 km N of junction of Mount Carmel Highway, 29 Jun 1935, *Maguire 12290* (GH, NY, UC, UT); Salt Lake Co., City Creek Canyon, 17 Jul 1880, *Jones 1872* (ARIZ, GH, NY, TEX, US 2, UTC); Sanpete Co., Sterling Canyon, 29 Jun 1950, *Jorgensen 1* (UT); Sevier Co., Fish Creek Canyon, 31 Jul 1909, *Garrett 2561* (NY, UT); Tooele Co., Stansbury's Island, Great Salt Lake, 25 Jun 1850, *Stansbury s.n.* (NY, US); Utah Co., Provo, 24 Aug 1944, *Galway 10654* (UC, UTC); City Water tank, Orem, 15 Jun 1965, *Bjerregaard 107* (NY); Washington Co., Zion National Park, 5 Jun 1929, *Woodbury 75* (US); Weber Co., Ogden, 21 Jun 1933, *Flowers F1274* (UT).

8. LYGODESMIA DOLORESENSIS Tomb, sp. nov. Colorado, Mesa Co., 6.4 km S of Gateway, 12 Jun 1970, *Tomb 648* (holotype: TEX!)

Herbae perennes; folia 2.5–14 cm longa, linearia; achaenium 1.8 cm longum apiceum versus attenuatum adaxialiter bisulcatum et obscure rugosum; speciebus aliis sectionis *Dianthopsis* foliis angustissimis differt.

Herbaceous perennial, 2.3–3.0 dm tall; roots vertical, 1.0–1.8 cm wide at the crown, ligneous, bearing 3–10 rhizomes; the latter short, vertical, unbranched, and covered with brown periderm; stems glabrous, branching just above ground level and weakly striate in the basal third; lower leaves linear 2.5–14.0 cm long, 1.5–3.5 mm wide, entire, glabrous, not forming a basal rosette, without a midrib; upper leaves similar to lower ones, becoming progressively shorter and less numerous above; heads several to numerous, 5–flowered; involucre subcylindrical to cylindriod 1.8–2.0 cm long, 4.5–6 mm wide of 5 principal involucral bracts; at maturity these bracts 1.8–2.2 cm long, ca. 2 mm wide, midrib absent or obscure, minutely puberulent on the outer surface, apices ciliate and bearing a small keel-shaped appendage; outer involucral bracts subulate, in a single series, ciliate with a small apical appendage like the principal bracts; ligules lavender, rose or white, 2.0 cm long, 0.9 cm wide; corolla tube 1.5 cm long; anthers 6–7 mm long, exserted most of their length above the mouth of the corolla tube; style pale lavender or white, exserted 5–6 mm above the anthers; style branches 4 mm long; receptacle narrow, ca. 2 mm wide; achenes subcylindric, 1.8 cm long, attenuate near the summit, abaxial surface smooth, adaxial surface twice sulcate with a prominent ridge separating the sulci, obscurely rugose; pappus 1.4 cm long, basally connate; sap milky white; pollen echinolophate, tricolporate mean equatorial diameter 62.1 μm; chromosome number, $n=9$ (Fig. 49).

DISTRIBUTION. Known only from the Dolores River valley from 2–12 miles S of Gateway, Colorado in reddish alluvial soil of Juniper-grassland 1341–1441 m; Jun (Fig. 46).

Lygodesmia doloresensis is closest to *L. dianthopsis* from which it can easily

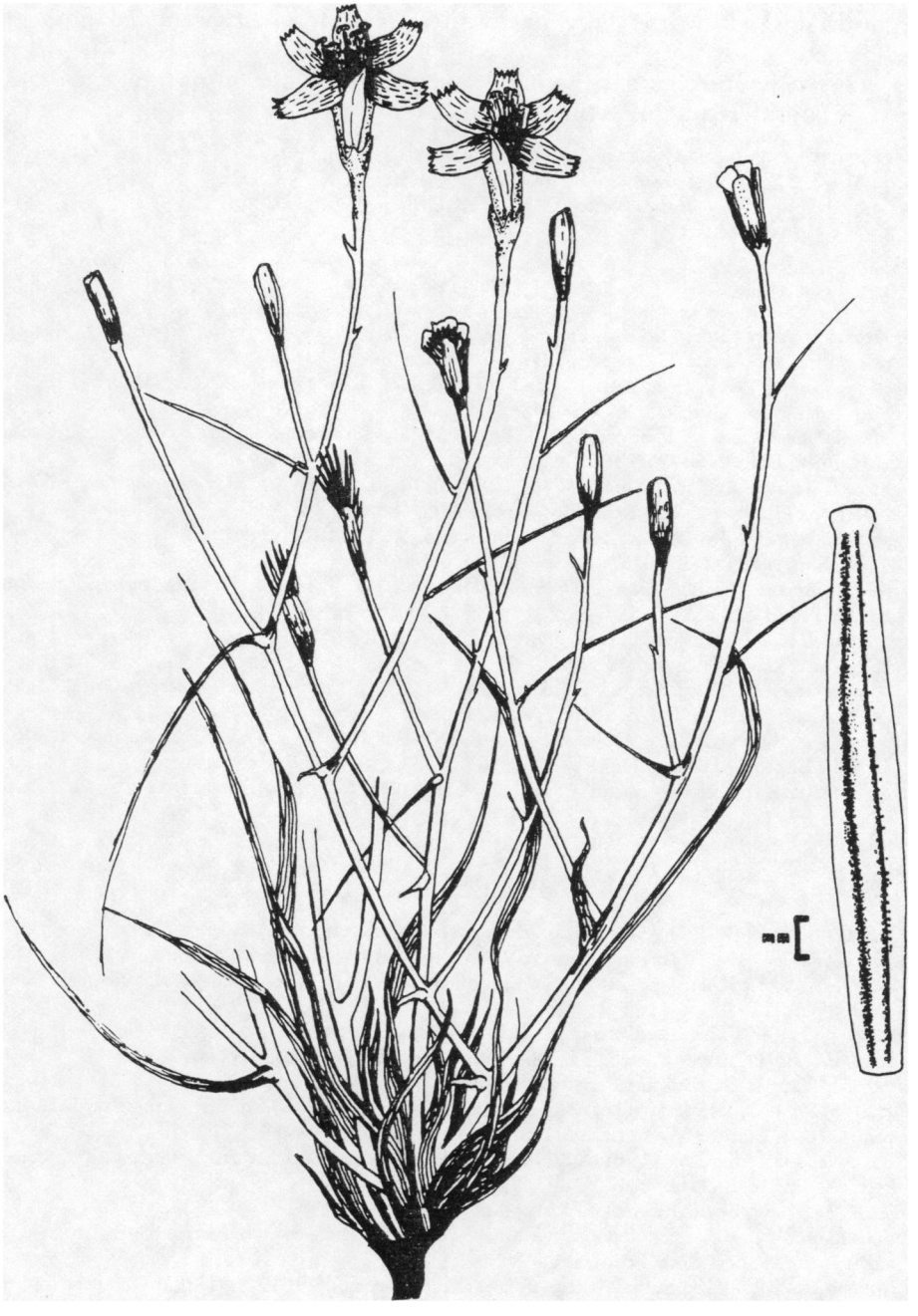

FIG. 49. Line drawing of *L. doloresensis,* habit and achene.

be distinguished by the very narrow leaves and much branched base of the former.

Lygodesmia doloresensis has the most restricted distribution in the genus and must be considered a threatened species.

SPECIMENS EXAMINED: Colorado: Mesa Co., 8 km S of Gateway, 11 Jun 1949, *Harrington 4426* (ASU); 3.2 km S of Gateway 8 Jun 1969, *Tomb 526* (KSC, TEX 2); 10 km S of Gateway, 1433 m, 21 Jun 1979, *J. Ratzloff 1655* (COLO, KSC).

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