A NEW GYPSOPHILIC MENTZELIA (LOASACEAE)
FROM NUEVO LEÓN, MEXICO

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ABSTRACT

Mentzelia gypsophila B.L. Turner, sp. nov., is described from gypseous soils near Mina, Nuevo León and Viesca, Coahuila. It is clearly closely related to M. lindheimeri Urb. & Gilg but differs in its annual habit, smaller flowers, and fewer stamens. A photo of the holotype is provided along with a distribution map of the two species concerned.

KEY WORDS: Loasaceae, Mentzelia, Mexico, Coahuila, Nuevo León

Routine identification of Mexican plants has brought to focus another previously undescribed species from the gypsum outcrops of northeastern Mexico.

Mentzelia gypsophila B.L. Turner, sp. nov. Fig. 1. Mentzeliae lindheimeri Urb. & Gilg similis sed differt duratione annua (vs. perenni), floribus minoribus (petalis 5–6 mm longis vs. plerumque 8–15 mm), et staminibus paucioribus (10–20 vs 25 vel plus).


Annual herbs, 10-50 cm high. Mid-stems with spreading, both spiculate and espiculate, trichomes 0.2–0.8 mm long, these underlain by a vestiture of much more numerous shorter hairs ca. 0.1 mm high; petioles 0.5–2.5 cm long; blades ovate, irregularly serrate or lobed, moderately appressed-pubescent on both surfaces. Flowers mostly axillary along upper stems, sessile or nearly so. Calyces (flowering) 5–12 mm long; sepal lobes lanceolate, 5–6 mm long, pubescent like the stems. Petals 5–6 mm long, reportedly “yellow” or “orange.” Stamens 10–20, ca 6 mm long; anthers yellow, ca 0.5 mm long. Capsules ca 1.5 cm long, 0.5 mm wide. Seeds obtrapezoidal, ca 2 mm long, 1.5 mm wide, markedly rugose, the surfaces ornamented throughout with parallel ridges.


Except for its seemingly annual habit and duration and smaller flowers, the present novelty much resembles Mentzelia lindheimeri Urb. & Gilg (including M. texana Urb. & Gilg; Turner 2002). At least six of the plants included in the type collection (Fig. 2) have delicate tap roots, these very unlike the woody tap roots of M. lindheimeri.

1. Annual; petals 5–6 mm long; stamens 10–20 ................................. Mentzelia gypsophila
1. Perennial; petals mostly 8–15 mm long; stamens 25 or more .................... Mentzelia lindheimeri

According to Correll and Johnston (1970), Mentzelia texana (included within M. lindheimeri by my taxonomy) has petals 6-8 mm long and 25 stamens, but I was unable to confirm the shorter petals among the numerous specimens at LL-TEX. Indeed, my examination of 16 specimens of M.
lindheimeri from Mexico at LL-TEX showed the petals to vary from 8–15 mm in length and the stamens to be 30 or more. More telling, all of the Mexican sheets had strong, perennial taproots and none was collected on gypseous soils, so far as known.

The restriction of Mentzelia gypsophila to gypseous soils is especially noteworthy, hence its name. The type locality is well known for its edaphic endemics (Turner 2008). Distribution of the two taxa is shown in Fig. 2.

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**LITERATURE CITED**


Turner, B.L. 2008. Cryptantha geoibonii (Boraginaceae), a newly described gypsophile from Nuevo León, Mexico. Phytologia 90: 406–410.

Figure 1. Distribution of Mentzelia gypsophila and M. lindheimeri.
Turner: New gypsophilic *Mentzelia* from Mexico

Figure 2. Holotype of *Mentzelia gypsophila*. 