

VARIATION WITHIN *Calochortus venustulus* (LILIACEAE)

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While collecting specimens of a new *Eriogonum* in the high mountains west of Hidalgo del Parral of northern Mexico, we made small collections of routine nature in order to better understand the local vegetation. In addition to the new *Eriogonum*, we found an unknown *Castilleja* which Dr. Noel Holmgren of the New York Botanical Garden will describe and a variant of *Calochortus venustulus* Greene which likewise is undescribed.

***Calochortus venustulus* Greene var. *imbricus* Reveal & Hess, var. nov.** A var. *venustulo* petalis 20-28 mm longis, pedunculis 10-15 cm longis, plantis 3-4.5(6) dm altis differt. Stems 3-4.5(6) dm high; peduncles erect, slender, 10-15 cm long; petals obovate, 2-2.8 cm long.

TYPE. MEXICO: Durango: Sierra Madre Occidental, along the dirt road from Hidalgo del Parral toward El Vergel out of San Francisco del Oro, about 60 road miles west of Parral and 18.5 road miles west of Ojito, on forest floor and slopes near limestone outcrops, associated with *Quercus reticulata*, *Pinus ponderosa* and *P. leiophylla*, *Arctostaphylos*, *Arbutus* and numerous other low shrubs and herbs, at about 8000 feet elevation, 11 August 1971, *Reveal, Hess & Kiger* 2741. Holotype, US! Isotypes to be distributed from US.

The var. *imbricus* (from the Latin *imbricus*, rainy, alluding to the rainy day that we discovered this plant) is a lovely addition to a genus already well noted for its beautiful members. Particularly, in the darkness of the rain and heavy clouds on that day, its large, golden flowers stood out in marked contrast from the dark greens and browns of the pine-oak forest floor.

During our investigations of this taxon, we found that *Calochortus venustulus*, as defined by Ownbey (1940), should be further subdivided.

The typical variety, var. *venustulus*, is common in the Sierra Madre Occidental west of Durango where it occurs

in the forests and dry meadows. However, to the north, west of Chihuahua and hence northward nearly to the United States, a second element is common in open plains and scattered oak forests. This phase was named *C. madrensis* by Watson just a few months after Greene proposed *C. venustulus* and has been placed in synonymy under the latter name. However, the northern population is consistently taller, with longer peduncles and shorter leaves in relationship to the inflorescence. This pattern of distribution is somewhat similar to that found in *Eriogonum atrorubens* Engelm. in Wislitz. (Reveal, 1967), and likely is expressed by other species as well. Thus, we feel the northern element should be recognized as *C. venustulus* var. **madrensis** (S. Wats.) Reveal & Hess, based on *C. madrensis* S. Wats., Proc. Amer. Acad. Arts 23: 283. 1888.

These variants may be distinguished as follows:

- A. Petals (10) 12-16 (18) mm long. (B)
 - B. Plants 1-2 dm high; leaves mostly longer than the inflorescence; peduncles 3-6 cm long; Durango
var. *venustulus*
 - B. Plants (1.5) 2.5-4.5 dm high; leaves mostly as long to slightly shorter than the inflorescence; peduncles 5-8 cm long; Chihuahua
var. *madrensis*
- A. Petals 20-28 mm long; plants 3-4.5 (6) dm high; leaves mostly shorter than the inflorescence; peduncles 10-15 cm long; extreme northern Durango . . . var. *imbricus*

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LITERATURE CITED

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