

## NOTEWORTHY COLLECTIONS

Authors: Donovan, Daniel P., and Rebman, Jon P.

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## NOTEWORTHY COLLECTIONS

## CALIFORNIA

*JOHNSTONELLA ANGELICA* (I.M. Johnston) Hasenstab & M.G. Simpson. (BORAGINACEAE).—San Diego Co., Anza-Borrego Desert State Park, east of Clark Dry Lake at the foot of the Santa Rosa Mountains, 3 km north of W. Truckhaven Trail; 33.3386, –116.2300 ( $\pm 5$  m); 179 m elevation; 27 March 2024; *Daniel Donovan 793 with Jon Rebman* (SD287674). Sand; annual herb, 12 cm, flowers white; rare; associated species include *Allionia incarnata* L., *Calyptidium monandrum* Nutt., *Chorizanthe brevicornu* Torr. var. *brevicornu*, *Chylismia claviformis* (Torr. & Frém.) A.Heller subsp. *peirsonii* (Munz) W.L. Wagner & Hoch, *Cryptantha maritima* (Greene) Greene var. *maritima*, *Eulobus californicus* Nutt. ex Torr. & A. Gray, *Johnstonella angustifolia* (Torr.) Hasenstab & M.G. Simpson (large- and small-flowered forms), *Larrea tridentata* (DC.) Coville, *Pectocarya heterocarpa* (I.M. Johnst.) I.M. Johnst., *Perityle emoryi* Torr., and *Schismus arabicus* Nees.

*Previous knowledge.* This species was considered endemic to Mexico (Rebman et al. 2016; Villasenor 2016) until its discovery at the Steele/Burnand Anza-Borrego Desert Research Center in Borrego Springs, San Diego County, in 2019 (*Stephens 1* [SDSU22760, SD00000690]; *Yang s.n.* [SDSU22773]; Simpson et al. 2020). The Borrego Springs occurrence represented a considerable disjunction, located about 240 mi (386 km) north of the taxon's previously known distribution on the Baja California peninsula. Simpson et al. (2020) could not rule out the possibility that it was a waif population originating with a visitor to the research center or through construction activities.

*Significance.* The discovery of *J. angelica* 11 mi (18 km) northeast of the Borrego Springs occurrence indicates the species is native to the United States and should be evaluated for California Rare Plant ranking (California Native Plant Society, Rare Plant Program 2024). The population was found off trail in undisturbed habitat approximately 2 mi (3 km) from the nearest open truck trail. Another small population was found in an adjacent drainage at ca. 33.3395, –116.2306 ( $\pm 2$  m), 182 m elevation. There is no evident reason to doubt that these are native occurrences. The specimen (Fig. 1) is characteristic of typical *J. angelica* (Amsinckiinae Working Group 2024; Simpson et al. 2021). The flowers are small, with corolla limb diameters up to 1.0 mm. The fruiting calyx measures 2.0–2.4 mm, and there are four white-tubercled nutlets bearing an acute, knife-edge margin. One nutlet is larger (1.1–1.2 mm) and persistent, and the three smaller (0.7–0.9 mm) nutlets quickly detach. The stem is antrorsely strigose with no spreading hairs.



FIG. 1. *Johnstonella angelica* found near Clark Dry Lake, showing typical growth habit branching from base. Photo by J. Rebman.

*Johnstonella angelica* occurs in various habitats and ecoregions in Baja California and Baja California Sur (Simpson et al. 2020). This second California population was found in the same ecoregion as the first, the Sonoran Desert, and in similar habitat, in and along desert washes in fine to gravelly sand. Both populations co-occur with *J. angustifolia* and *Cryptantha maritima* var. *maritima*, which are common throughout the region. Because *C. maritima* var. *maritima* and the small-flowered form of *J. angustifolia* superficially resemble *J. angelica*, the discovery of new populations and a complete delimitation of *J. angelica*'s U.S. distribution will require careful observation in the field on the part of any botanists who survey for this species.

—DANIEL P. DONOVAN AND JON P. REBMAN, San Diego Natural History Museum, 1788 El Prado, Balboa Park, San Diego, CA 92101. ddonovan@sdnhm.org.

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