Element Code: PDASTEL010

# Added to California Rare Plant Rank 2B.2 of the CNPS Inventory on March 14, 2017

Rare Plant Status Review: Almutaster pauciflorus
Proposed Addition to California Rare Plant Rank 2B.2, G4 / S1S2
Kaitlyn Green (CNPS), Aaron E. Sims (CNPS), and Roxanne Bittman (CNDDB)
January 31, 2017

Changes made to the original document are in blue text.

# **Background**

Almutaster pauciflorus (Nutt.) Á. Löve & D. Löve is a perennial herb in the Asteraceae known within California from the northern portion of the Mojave Desert and the southern Sierra Nevada Foothills. It is relatively widespread outside of California, ranging from southeast Alberta east to Manitoba, Canada, then south through the western Great Plains to west Texas, Arizona, and Mexico. Almutaster pauciflorus is not included in The Jepson Manual, Keil 1993), but is included in The Jepson Manual, Second Edition (Semple 2012) and Flora of North America (Brouillet 2006). The genus Almutaster is monotypic and can be identified by white to pale purple rays, a pappus of bristles, densely glandular phyllaries, solitary heads at tips of long inflorescence branches, and more or less linear cauline leaves (versus glabrous phyllaries in the similar genera, Eurybia and Symphyotrichum, which were previously in the genus Aster).

Almutaster pauciflorus occurs in moist alkaline meadows, seeps, and flats at an approximate elevation of 240 to 800 meters in California, and is known to flower in June through October.

Almutaster pauciflorus is known within California from approximately ten occurrences (comprised of 41 collections), from the northern Mojave Desert and southern Sierra Nevada Foothills. Two occurrences are located outside of the reported Jepson eco range (s SNF, n DMoj [Inyo Co.]) in western Riverside County. Four of its occurrences are on federal lands (one on BLM, two within the Mojave National Preserve, and one within Sequoia National Forest), a single occurrence is located on Shoshone tribal lands, and the remaining five occurrences are located on private lands. Of the ten occurrences, seven are considered to be historic (occurrences not seen in over 20 years are considered historical by the CNDDB). According to James Andre (pers. comm. 2017), the occurrence at Zzyzx (record #5 in the "Locations" tab of the attached "NewAdd\_AlmutasterPauciflorus" spreadsheet) was not found in recent attempts to locate it.

In Canada, *Almutaster pauciflorus* is ranked Imperiled to Vulnerable (S2S3) in Alberta, Vulnerable (S3) in Saskatchewan, Apparently Secure (S4) in Manitoba, and is not ranked (SNR) in Northwest Territories. In the United States, it is ranked Possibly Extirpated (SH) in South Dakota, Imperiled (S2) in Wyoming, Critically Imperiled (S1) in Arizona, and is not ranked in Colorado, Montana, Nevada, New Mexico, North Dakota, or Utah (NatureServe 2016). Its status in Mexico is unknown.

Sent to: SN, ES/D, SW on 01/31/2017

Element Code: PDASTEL010

While there are no documented threats specific to *A. pauciflorus* in California, alkaline wetlands are demonstrably threatened and in decline in the state, and it is therefore potentially threatened by habitat alteration or loss. Additional threats may come from development in Tecopa Hot Springs where many of the more recent collections are found. The occurrence of *A. pauciflorus* in the Amargosa River Valley area (record #4) is possibly threatened by hydrological alterations; "[t]he hydrology of the Amargosa River region is complex and certainly there are threats to that system that could impact many of the wetland plants of the region, including this one" (N. Fraga pers. comm. 2017).

Based on the available information, CNPS and CNDDB recommend adding *Almutaster* pauciflorus to California Rare Plant Rank 2B.2 of the CNPS Inventory. We recommend a threat rank of .2 based on the sensitive habitat in which is occurs, and the potential threat of development. If knowledge on the distribution, threats, and rarity status of *Almutaster pauciflorus* changes in the future, we will re-evaluate its status at that time.

### **Recommended Actions**

CNPS: Add *Almutaster pauciflorus* to CRPR 2B.2 CNDDB: Add *Almutaster pauciflorus* to G4 / S1S2

# **Draft CNPS Inventory Record**

Almutaster pauciflorus (Nutt.) Á. Löve & D. Löve alkali marsh aster
Asteraceae
CRPR 2B.2

Inyo, Kern, San Bernardino

Arizona, Colorado, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah, Wyoming; Canada

Temecula (050B) 3311742, Cathedral City (082C) 3311674, Soda Lake North (203A) 3511621, Lake Isabella North (260B) 3511864, Resting Spring (275B) 3511682, Tecopa (275C) 3511672, Shoshone (276A) 3511683

Meadows and seeps / alkaline; elevation 240-800 meters.

Perennial herb. Blooms June to October.

Potentially threatened by development, habitat alteration, and habitat loss. Possibly threatened by hydrological alterations. See *The Genera of North American Plants* 2:154 (1818) for original description, and *Taxon* 31(2):356 (1982) for revised nomenclature.

#### **Literature Cited**

Brouillet, L. 2006. *Almutaster*. Pp. 461 *in* Flora of North America Editorial Committee (eds.), Flora of North America North of Mexico, Vol. 20. New York and Oxford.

Keil, D.J. 1993. Asteraceae. Pp. 174 *in* The Jepson Manual: Higher Plants of California. University of California Press, Berkeley.

Löve, Á. and D.B.M. Löve. 1982. Taxon 31(2): 356. (Revised nomenclature.)

Sent to: SN, ES/D, SW on 01/31/2017

Element Code: PDASTEL010

NatureServe. 2015. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Website http://explorer.natureserve.org/

Nuttall, T. 1818. Aster. L. (Star-wort.). The Genera of North American Plants 2:154. (Original description.)

Semple, J. C. 2012. *Almutaster.* Pp. 236 *in* Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.), The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley, CA.

Sent to: SN, ES/D, SW on 01/31/2017