Element Code: PDFAB0F190

Added to Rank 1B.2 on February 16, 2011

Rare Plant Status Review: Astragalus bernardinus Proposed New Add to Rank 4.2 1B.2, G3 / S3 Aaron Sims (CNPS) and Roxanne Bittman (CNDDB) December 9, 2010

Changes made to the original status review document appear in blue.

Background

Astragalus bernardinus is a perennial herb in the Fabaceae known mostly from the Little San Bernardino Mountains of California. It is included in *The Jepson Manual* (1993), and will be included in *The Jepson Manual*, 2nd Edition (online at http://ucjeps.berkeley.edu/tjm2/review/treatments/fabaceae_all.html#14719). Astragalus bernardinus was reported from the Charleston Mountains of Clark Co., Nevada in Marcus Jones's 1923 book "Revision of North-American Species of Astragalus", and has long been attributed to this area since (Clokey 1951; Munz 1959; Kartesz 1988). However, after many years of searching, no vouchers or discoveries of *A. bernardinus* from this area have ever been documented (Jason Alexander pers. comm. 2010; Jim Andre pers. comm. 2010), and it is therefore presumed to be endemic to California. *Astragalus bernardinus* flowers from April to June.

Astragalus bernardinus generally grows along slopes and ridges within Joshua tree and pinyon-juniper woodland. It typically occurs on stony areas consisting of granite or limestone at an elevation of approximately 900-2000 meters.

Astragalus bernardinus is known from approximately 33 occurrences throughout the Little San Bernardino Mountains and eastern Mojave Desert of Riverside and San Bernardino Counties. The type specimen was collected from "Morongo King Mine, east side of San Bernardino Mountains". One record in the Consortium of California Herbaria indicates an occurrence of *A. bernardinus* from Green Lake Valley, Inyo County at an elevation of 10,800 ft. (RSA90218). However, this occurrence record has been rejected as a miss-identification by taxonomic experts (J. Andre pers. comm. 2010).

Of the 33 known occurrences of *A. bernardinus*, only 8 have been documented in the past 20 years, and 24 are only represented by references or herbarium specimens that are over 50 years old. However, it is expected that *A. bernardinus* is a seldom collected taxon, thus further surveys will likely result in the discovery of additional occurrences.

Astragalus bernardinus is potentially threatened within Mojave National Preserve and Joshua Tree National Park by recreational hiking as well as active mining in the Mescal Range. Direct threats to *A. bernardinus* in the Little San Bernardino Mountains outside of Joshua Tree National Park (from Pioneertown to

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Cushenberry) include grazing, recreational activities, rural development, and active mining (J. Andre pers. comm. 2010).

Based on the available information, CNPS and CNDDB recommend that *Astragalus bernardinus* be added to CNPS 4.2, with the likelihood of it being undercollected.

Recommended Actions

CNPS: Add to CNPS 4.21B.2 CNDDB: Add to CNDDB G3 / S3

Please review the draft CNPS Inventory record below, respond Yes or No on the proposal to add this species to the Inventory and CNDDB, and provide any edits/comments. If responding No, please provide supporting information.

Draft CNPS Inventory Record

Astragalus bernardinus M.E. Jones San Bernardino milk-vetch Fabaceae Rank 4.2-1B.2

Riverside, San Bernardino

Big Bear City (131D) 3411637, Bighorn Canyon (130D) 3411635, Castle Peaks (224C) 3511532, Clark Mtn. (249D) 3511555, Conejo Well (079C) 3311576, Cottonwood Spring (063A) 3311567, Indian Cove (102C) 3411612, Joshua Tree South (103D) 3411613, Keys View (081B) 3311682, Mescal Range (226A) 3511545, Mineral Hill (225B) 3511544, Onyx Peak (104B) 3411626, Porcupine Wash (080D) 3311577, Rimrock (104A) 3411625, Yucca Valley North (103B) 3411624

Joshua tree "woodland", Pinyon and juniper woodland/often granitic or carbonate; elevation 900-2000 meters.

Perennial herb. Blooms April-June.

Historic report from the Charleston Mtns. of NV lacks supporting evidence. Potentially threatened by mining, development, grazing, and recreational activities.