Element Code: PDBRA060K2

Deleted from California Rare Plant Rank 3.3 on April 11, 2012, and placed on Considered But Rejected list

Rare Plant Status Review: *Arabis fernaldiana* var. *stylosa* Proposed Deletion from Rank 3.3

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Background

Boechera fernaldiana var. stylosa is a perennial herb in the Brassicaceae family that has been included in the CNPS Inventory since the first edition (1974). It had been known from one occurrence in the CNDDB (2012), although several other populations had been documented (Calflora 2012, M. Dedecker pers. comm. 1996). After extensive molecular, cytological, and morphological studies, most of the North American species of Arabis were transferred to Boechera, including A. fernaldiana (Al-Shehbaz 2003). Also, infraspecific variation within Boechera fernaldiana is now treated at the subspecific, rather than variety level (Windham and Al-Shehbaz 2006). The remainder of this review will reflect the current taxonomy. Extensive review of the type and other herbarium specimens of Boechera fernaldiana ssp. stylosa and ssp. fernaldiana led Windham and Al-Shehbaz (2006) to declare the two taxa synonymous. Boechera fernaldiana ssp. stylosa has been treated as a synonym of Boechera fernaldiana ssp. fernaldiana. These two subspecies of Boechera fernaldiana had been distinguished by the shorter petals, pubescent (vs. glabrous) upper stems and pedicels, and shorter basal leaves of ssp. stylosa compared to ssp. fernaldiana (Rollins 1941). However, Rollins (1941) was only able to examine the few existing specimens of Boechera fernaldiana ssp. stylosa (n=3) and ssp. stylosa (n=2) for the composition of this treatment; the new treatment of Boechera fernaldiana ssp. fernaldiana encompasses more morphological variability than Rollins' (1941) treatment (FNA, Windham and Al-Shehbaz 2006).

Although *Boechera fernaldiana* ssp. *stylosa* is now considered a synonym of *B. fernaldiana* ssp. *fernaldiana*, it is unlikely that any *B. fernaldiana* ssp. *fernaldiana* plants ever occurred in California. The California plants previously thought to be *B. fernaldiana* ssp. *stylosa* have now been attributed to various other taxa, including *B. cobrensis* (*Taylor 8089*), *B. howellii* (*Honer 1153*), *B. platysperma* (*Honer 1090*), a hybrid between *B. platysperma* and an unknown parent (*Taylor 9988*), and a previously undescribed California endemic, *B. evadens* (D. Taylor and J. Morefield pers. comm. 1999; Windham and Al-Shehbaz 2006; Consortium of California Herbaria – CCH – 2012).

Based on this information, CNPS and CNDDB recommend that *A. fernaldiana* var. *stylosa* be deleted from the CNPS Inventory (it will be placed on the Considered But Rejected list). Plants from California that had previously been treated as *Arabis fernaldiana* var. *stylosa* are now treated as *Boechera evadens*, which is currently under status review as a proposed addition to California Rare Plant Rank 1B.3 of the CNPS Inventory.

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Recommended Actions:

CNPS: Delete *Arabis fernaldiana* var. *stylosa* from CNPS 3.3 **CNDDB**: Delete *Arabis fernaldiana* var. *stylosa* from G4T3 / S2

Current CNPS Inventory Record

Arabis fernaldiana var. stylosa Brassicaceae stylose rock cress Rank 3.3

Mono

Station Peak (431D) 37118E1, Watterson Canyon (433B) 37118F6, Boundary Peak (450D) 37118G3

Great Basin scrub (carbonate, rocky); 2300 – 3080 meters.

Perennial herb, blooms June to July.

Move to List 2? Known in CA only from one occurrence. Needs research. See *Rhodora* 43(511):430-432 (1941) for taxonomic treatment.

Literature Cited

Al-Shehbaz, I. 2003. Transfer of most North American species of *Arabis* to *Boechera* (Brassicaceae). Novon 13: 381-391.

Rollins, R.C. 1941. Monographic study of *Arabis* in western North America. Rhodora 43: 425-480.

Windham, M. and I. Al-Shehbaz 2006. New and noteworthy species of Boechera (Brassicaceae) I: sexual diploids. Harvard Papers in Botany 11(1):61-88.