

Added to California Rare Plant Rank 1B.3 on April 11, 2012**Rare Plant Status Review: *Boecheera evadens*****Proposed New Add to 1B.3, G1G2 / S1S2**

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Changes made to the original document appear in blue text.

Background

Boecheera evadens is a perennial herb in the Brassicaceae family that was first described by Windham and Al-Shehbaz in 2006. It is only found in the central to southern high Sierra Nevadas. It is included in *The Jepson Manual, Second Edition* (TJM 2; available online at http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=85538) and the *Flora of North America*, Vol. 7 (FNA; available online at http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=250094560). *Boecheera evadens* escaped detection as a species until recently because the plants were treated as *Arabis fernaldiana* var. *stylosa* and several other taxa (Windham and Al-Shehbaz 2012, Consortium of California Herbaria – CCH – 2012). Windham and Al-Shehbaz (2006) performed a critical review of type and other herbarium specimens, and determined that *Arabis fernaldiana* var. *stylosa* is synonymous with *Boecheera fernaldiana* ssp. *feraldiana*, but *B. fernaldiana* ssp. *feraldiana* is restricted to northern and central Nevada (*Arabis fernaldiana* was moved to the genus *Boecheera*, and varieties were changed to subspecies). The plants that have been treated as *Boecheera evadens* are restricted to California. *Boecheera evadens* is easily distinguished from *B. fernaldiana* by its smaller white petals (3-4m long), densely pubescent lower stems with trichomes that are 2- to 5- rayed, and 3-4cm long fruits. *Boecheera fernaldiana* has longer lavender-purple petals, its lower stem has shorter trichomes with 4-8 rays that are sometimes not as densely distributed, and it has longer fruits (4-7.5 cm; Windham and Al-Shehbaz 2006). *Boecheera evadens* can also hybridize with other *Boecheera* spp., such as *B. lemmonii* (CCH 2012). *Boecheera evadens* blooms from May to August.

Boecheera evadens is known from upper montane coniferous forest in the central to southern Sierra Nevada. Substrates are variable, but it tends to grow in rocky sites. It only occurs at high elevations, ranging from about ~~2560~~ 2515 to ~~2850~~ 3355 meters.

Arabis fernaldiana var. *stylosa* had been documented in the CNDDDB from only one historical occurrence (Taylor 8089), although several other occurrences were known or suspected (Calflora 2012, M. Dedecker pers. comm. 1996). Review of herbarium specimens led M. Windham and I. Al-Shehbaz to discover additional specimens of *Boecheera evadens*, representing ~~seven new~~ a total of four occurrences (CCH 2012, D. Taylor and M. Windham pers. comm. 2012). All of these occurrences are on U.S. Forest Service lands, and four of the occurrences are in the Domeland Wilderness of the Sequoia National Forest. An additional observation by A. Howald of *Arabis fernaldiana* var. *stylosa* from 1981 was a mis-identification and is not *Boecheera evadens* (Calflora 2012, A. Howald pers. comm. 2012). The one occurrence that was previously

included in the CNDDDB (EO#1, 2012) [is almost certainly erroneous \(M. Windham pers. comm. 2012\)](#), and [is some apomictic species other than *B. evadens* \(D. Taylor pers. comm. 2012\)](#) ~~may actually be another taxon~~. This occurrence is from Glass Mountain Ridge in Mono County; subsequent collections have been made at this location, and are now attributed to *Boechera howellii* (Honer 1153), *Boechera platysperma* (Honer 1090), or a hybrid between *B. platysperma* and an unknown parent (Taylor 9988; CCH 2012). Another collection, taken about 0.5 mile away from Taylor 8089, has been treated as *B. cobrensis* and *B. bodiensis* by D.W. Taylor and J. Morefield, respectively (pers. comm. 1999; CCH 2012).

Boechera evadens is not known outside of California, although it occurs close to the Nevada border. Because *Boechera* spp. can be very difficult to conclusively identify, and because there are disjunct populations in Alpine, Inyo, and Mono counties, it is very possible that other occurrences exist in California or nearby in Nevada. Field studies of high-elevation rocky sites and review of more herbarium specimens will be crucial to our understanding of the full distribution of *B. evadens*.

Threats to *Boechera evadens* are not currently known, but given that [all many](#) occurrences are in a designated wilderness area, it should be considered well-protected. Based on the available information, CNPS and CNDDDB recommend that *B. evadens* be added to Rank 1B.3 of the CNPS Inventory.

Recommended Actions

CNPS: Add *Boechera evadens* to CNPS 1B.3

CNDDDB: Add *Boechera evadens* to CNDDDB G1G2 / S1S2

Draft CNPS Inventory Record

Boechera evadens Windham & Al-Shehbaz

hidden rockcress

Brassicaceae

Rank 1B.3

~~Alpine, Inyo, Tulare, Mono~~

~~Aberdeen (373A) 3611883, Bonita Meadows (307D) 3611813, Ebbetts Pass (506D)~~

~~3811957, Rockhouse Basin (283B) 3511882.~~

Upper montane coniferous forest / rocky; [2560 – 2850](#) ~~2515 – 3355~~ meters.

Perennial herb. Blooms May to August.

Known only from the high Sierra Nevada. All occurrences historical; need field surveys.

Hybridizes with *B. lemmonii* and possibly others. Previously identified as *Arabis fernaldiana* var. *stylosa*; see this name in *The Jepson Manual* (1993). See *Harvard Papers in Botany* 11(1):61-88 (2006) for original description.