

Added to California Rare Plant Rank 2B.1 in CNPS Inventory on 12 June 2020

**Rare Plant Status Review: *Oxytropis oreophila* var. *juniperina*
Proposed Addition to California Rare Plant Rank 2B.1, G5T4T5 / S1**

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Background and Taxonomy

Oxytropis oreophila A. Gray var. *juniperina* S.L. Welsh is a perennial herb in the Fabaceae known in California only from Mono Basin, Mono County, and from Nevada and Utah. It is not included in *Jepson eFlora* (Wojciechowski 2012) and the Fabaceae treatment has not yet been published in the *Flora of North America North of Mexico*. *Oxytropis oreophila* var. *juniperina* was described in 1978 by Stanley Welsh in the Utah Flora: Fabaceae (Leguminosae) published in *The Great Basin Naturalist*. It was recently discovered and reported for the first time in California showing a western extension to its range and is only known from a single population.

Oxytropis oreophila is known from two additional varieties, *O. oreophila* var. *jonesii* from Utah, and the nominal var. *oreophila*, which is rare in California (CRPR 2B.3; <http://www.rareplants.cnps.org/detail/1991.html>) and can also be found in Nevada, Utah, and Arizona. Besides being known from a different range and habitat in California, *O. oreophila* var. *juniperina* is taxonomically differentiated from var. *oreophila* in having a densely pulvinate to caespitose plant habit (vs. densely to loosely pulvinate to caespitose), leaves 0.5 to 2 cm in length (vs. often more than 2 cm), leaflets mostly 2 to 5 mm long (vs. commonly more than 5 mm), pods 10 mm long or less and less than 6 mm wide (vs. pods 9 to 17 mm long and more than 6 mm wide), and flowers that are 9.5 mm long or less (vs. flowers commonly 10 to 12.5 mm long in *O. oreophila* var. *oreophila*) (Welsh 1978).

Ecology

As its name implies, *Oxytropis oreophila* var. *juniperina* occurs in pinyon and juniper woodlands (Welsh 1978), and in California is known from an approximate elevation of 2,154 meters, with a blooming period in June (A. Howald, pers. comm. 2017). Potential associated plants include: *Mentzelia torreyi*, *Oenothera cespitosa* subsp. *crinita*; *Juniperus osteosperma*, *Ericameria parryi* var. *nevadensis*, *Phlox condensata*, *Asclepias cryptoceras*, and *Cryptantha humilis* (Howald, 2018).

Distribution and Abundance

Oxytropis oreophila var. *juniperina* is known in California from one occurrence, consisting of two collections made in eastern Mono Basin, Mono County. This occurrence is considered recent, being first discovered in 2016 and last visited in 2018. It is found wholly within the Inyo National Forest and has an estimated 100 individuals spanning both sides of the state border with Nevada (Howald 2018). The closest known occurrence from California is 210 air km away in Little Fish Lake Valley, Nye County, Nevada. *Oxytropis oreophila* var. *juniperina* has been described to have a discontinuous range reaching from southeast Nevada to southwest Utah. With this recent discovery in California it shows a clear extension westward in its range. The site in California in which it was found is the same location and substrate as two other CRPR 2B plants in the CNPS Inventory, *Physaria ludoviciana* (2B.2, <http://www.rareplants.cnps.org/detail/3370.html>), and *Astragalus kentrophyta* var. *ungulates*

(2B.2, <http://www.rareplants.cnps.org/detail/3294.html>), both of which can also be found in Nevada (Howald 2018, CNPS 2020).

Status and Threats

In California, *Oxytropis oreophila* var. *juniperina* is threatened in having such a small population, which is attributed to the extremely limited soil type it grows in. While the small size of its population may be a threat in of itself, the area in which it occurs is not easily accessed by the public, which provides it some protection. The single California occurrence is possibly threatened by wild horses; horses not only pose a trampling threat, but affect the freshwater springs and introduce nonnative plants through their manure, which threaten to take over the area in which *O. oreophila* var. *juniperina* is found. A population of several thousand plants of *Halogeton* was observed in the area of this occurrence but has since been removed from the area (A. Howald, pers. comm. 2020).

Oxytropis oreophila var. *juniperina* is considered common outside of California, with a Global Rank of G5T4T5, and is not ranked (SNR) in Nevada and Utah (NatureServe 2020).

Summary

Based on the available information, CNPS and CNDDDB recommend adding *Oxytropis oreophila* var. *juniperina* to California Rare Plant Rank 2B.1 of the CNPS Inventory. If knowledge on the distribution, threats, and rarity status of *O. oreophila* var. *juniperina* changes in the future, we will re-evaluate its status at that time.

Recommended Actions

CNPS: Add *Oxytropis oreophila* var. *juniperina* to CRPR 2B.1

CNDDDB: Add *Oxytropis oreophila* var. *juniperina* to G5T4T5 / S1

Draft CNPS Inventory Record

Oxytropis oreophila A. Gray var. *juniperina* S.L. Welsh

mountain oxytrope

Fabaceae

CRPR 2B.1

Mono

Nevada, Utah

Cedar Hill (469A) 3811827

Pinyon and juniper woodland; elevation 2150 meters.

Perennial herb. Blooms June.

Discovered in CA by A. Howald and A. Tiehm in 2016. Possibly threatened by trampling and non-native plants. See *The Great Basin Naturalist* 38(3):339 (1978) for original description, and *Madroño* 65(1):6 (2018) for information on discovery in CA.

Literature Cited

[CNPS] California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 16 April 2020].

Howald, A. M. and A. Tiehm. 2018. Noteworthy Collection California *Oxytropis oreophila* var. *Juniperina*. *Madroño* 65(1): 6.

NatureServe. 2020. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Website <http://explorer.natureserve.org/> [accessed 16 April 2020].

Welsh, S. L. 1978. Utah Flora: Fabaceae (Leguminosae). *The Great Basin Naturalist* 38(3): 339.

Wojciechowski, M. F. 2012. *Oxytropis*. In: Jepson Flora Project (eds.), *Jepson eFlora*. Website https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=9391, accessed on April 16, 2020.