

**Changed from California Rare Plant Rank 3.2 to 1B.1 in the CNPS Inventory on November 21, 2014**

**Rare Plant Status Review: *Trifolium siskiyouense***  
**Proposed Rank Change from CRPR 3.2, G3G4Q / S2 to CRPR 1B.1, GH2 / SH4**  
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Changes made to the original document appear in blue text.

### **Background**

*Trifolium siskiyouense* is a perennial herb in the Fabaceae that has been included in the CNPS Inventory at California Rare Plant Rank (CRPR) 3.2 since 2006. At the time, it was added to CRPR 3 as opposed to another Rank because of uncertainty surrounding its abundance throughout its entire range (northern California and southern Oregon). That uncertainty stemmed from a few key factors: 1) *T. siskiyouense* was omitted from *The Jepson Manual* (Isely 1993), as well as regional floras (NatureServe 2014), so botanists could easily misidentify plants for the close relative *T. wormskioldii*, and 2) a major difference separating *T. siskiyouense* from related taxa is its tuberous root, a character that is absent on many herbarium specimens (Gillett 1980). To address the data gap, Humboldt State University botanist J. Sawyer (pers. comm. 2006) noted that he would look for it in subsequent field work. However, since its addition to the CNPS Inventory, *T. siskiyouense* has only been found at one additional site. *Taylor 19190* was originally collected as *T. wormskioldii* in 2004, but was annotated to *T. siskiyouense* by D. Taylor in 2011 (Consortium of California Herbaria, CCH, 2014). *Trifolium siskiyouense* is currently recognized in *The Jepson Manual, Second Edition* (TJM 2; Vincent 2012).

*Trifolium siskiyouense* was first described fairly recently, as the name was first published by Gillett (1980). The late D. Isely (1998) later made the new combination *Trifolium wormskioldii* var. *siskiyouense*. The TJM 2 author M. Vincent (pers. comm. 2006) was initially uncertain whether to recognize *T. siskiyouense* at the specific or infraspecific level, but ultimately decided to treat it as a unique species (Vincent 2012). In Gillett's (1980) original description, the tuberous root of *T. siskiyouense* is noted as a character that distinguishes it from related taxa, including *T. wormskioldii* and other members of sect. *involutarium* of *Trifolium*. Realizing that roots are sometimes lacking in herbarium specimens, Gillett (1980) also noted that "the deeply cut involucre, the slender, long-lobed calyx, long wing petals, short keel blade, and usually pale flowers are diagnostic features" of *T. siskiyouense*. In fact, D. Taylor determined *Taylor 19190* to *T. siskiyouense* based on the abaxial calyx lobes that were longer than the other lobes and the calyx tube, and were not serrate, all characters used in Gillett's (1980) key to separate out *T. siskiyouense* from *T. wormskioldii* and related taxa (CCH 2014). *Trifolium siskiyouense* flowers from June to July.

*Trifolium siskiyouense* occurs in mesic meadows and seeps. Most occurrences are from wet meadows or along creeks (CCH 2014). They range in elevation from 880 to 1500 meters.

There are currently only ~~four~~ five known occurrences of *T. siskiyouense* in California. Of these, ~~four~~ All occurrences have been only historically documented, all between 1876 and 1935. Taylor 19190 was expected to be is the only recent collection, from the town of Weed; however, this record turned out to be a misidentification (D. Taylor pers. comm. 2014). The specific landowner at the site of each occurrence is unknown, mostly due to vague location data. Many of the occurrences may be on private property, as they were collected near rural communities or small cities. No data on population size is available for any occurrence of *T. siskiyouense*. An occurrence from “Yreka and the Shasta River” (Greene 880) was collected just a few days before, and in the same general area as the only collection of the extinct plant *Calochortus monanthus* (Greene 887; CCH 2014), so it is possible that the factors leading to this extinction could have also impacted this population of *T. siskiyouense* (D. Taylor pers. comm. 2004). New occurrences of *T. siskiyouense* could possibly be found in herbarium specimens currently treated as *T. wormskioldii*. However, the majority of the specimens from Shasta and Siskiyou Counties are housed at the UC and Jepson herbaria, and they have already been examined by D. Taylor (pers. comm. 2004). Specimens of *T. wormskioldii* in those counties from other herbaria could represent as many as eight new occurrences if they were confirmed as *T. siskiyouense*. Given the plant’s inclusion in the Inventory for nearly a decade, it seems unlikely that many of these are attributable to *T. siskiyouense*. We encourage herbarium curators to seek out possible new occurrences of *T. siskiyouense* in their collections.

*Trifolium siskiyouense* is probably highly threatened by grazing (or lack thereof; R. Morgan and C. Sanville pers. comm. 2014) as well as land conversion. Noting the locations of collections, J. Sawyer (pers. comm. 2006) stated that “this clover is in real trouble” due to “highly changed agricultural and urban land”. Taylor (pers. comm. 2004) noted that the occurrences from Montgomery Creek and the Scott and Shasta Valleys would likely be impacted by heavy grazing, particularly due to the high palatability of clovers.

Outside of California, *Trifolium siskiyouense* is only known from Jackson, Josephine, and Douglas Counties in southern Oregon (S. Vrilakas pers. comm. 2006). There are approximately eight known occurrences in Oregon (GBIF 2014), and all of them are not more recent than 1918 (A. Liston pers. comm. 2014). However, the plant does not have any rarity status there (NatureServe 2014). The abundance of *T. siskiyouense* in Oregon is not well-known, but key botanists in the state have been notified to look for it (S. Vrilakas pers. comm. 2014). To our knowledge, it has not been included in any keys for the region, so some populations are likely ~~could be~~ misidentified and attributed to *T. wormskioldii*; two specimens of *T. siskiyouense* from Oregon (Kennedy s.n. UC630708 and UC630718) were recently determined to be *T. wormskioldii* by D. Taylor and R. Morgan (pers. comm. 2014).

Based on the available information, CNPS and CNDDDB recommend re-ranking *Trifolium siskiyouense* from CRPR 3.2 to CRPR 1B.1. The very small number of occurrences from California, combined with serious threats from land conversion and grazing, make the conservation of this plant in California a high priority. Our knowledge of *T. siskiyouense* from Oregon is less certain, but the currently available data suggest that it could be extremely rare there as well. Therefore, we propose to move this plant to CRPR 1B as opposed to 2B. If additional information on *T. siskiyouense* from Oregon and/or California becomes available and suggests that it is more common than currently known, we will re-evaluate its status at that time.

### Recommended Actions

CNPS: Re-rank *Trifolium siskiyouense* from CRPR 3.2 to CRPR 1B.1

CNDDDB: Re-rank *Trifolium siskiyouense* from G3G4Q / S2 to ~~CRPR 1B.2~~, GH2 / SH4

### Current CNPS Inventory Record

*Trifolium siskiyouense* J. Gillett

Siskiyou clover

CRPR 3.2

Oregon

Shasta, Siskiyou

Montgomery Creek (663C) 40121G8, Mt. Shasta (698B)? 41122D2, Montague (717A)?

41122F5, Yreka (717B)? 41122F6, Greenview (718C) 41122E8, Fort Jones (718D)

41122E7, Hawkinsville (734D) 41122G5

Meadows and mesic seeps; elevation 880-1500 meters.

Perennial herb. Blooms June to July.

Possibly threatened by grazing. See *Canadian Journal of Botany* 58(13): 1441 (1980) for original description.

Available online at <http://www.rareplants.cnps.org/detail/3220.html>.

### Revised CNPS Inventory Record

*Trifolium siskiyouense* J. Gillett

Siskiyou clover

CRPR 1B.1

Oregon

Shasta, Siskiyou

Montgomery Creek (663C) 4012178, ~~Hotlum (699A) 4112243~~, Mt. Shasta (698B)?

4112242, City of Mt. Shasta (699D) 4112233, Montague (717A) 4112265, Yreka (717B)

4112266, Greenview (718C) 4112258, Fort Jones (718D) 4112257, Hawkinsville (734D)

4112275

Meadows and seeps (mesic) / sometimes streambanks; elevation 880-1500 meters.

Perennial herb. Blooms June to July.

Previously CRPR 3.2; rarity and endangerment information was needed. [Move to CRPR 1A?](#) [Has not been documented since 1935 in CA and 1926 in OR; needs field surveys.](#) Threatened by grazing [\(or lack thereof\)](#) and habitat conversion. Similar to *T.*

*wormskioldii*. Not in *TJM* (1993). See *Canadian Journal of Botany* 58(13):1441-1442 (1980) for original description.

### Literature Cited

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