

Added to California Rare Plant Rank 4.2 in the CNPS Inventory on May 14, 2014**Rare Plant Status Review: *Didymodon californicus*
Addition to California Rare Plant Rank 4.2, G2G3 / S2S3**

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Background

Didymodon californicus is one of 29 bryophytes that are being added to the CNPS Inventory and CNDDDB based on decisions made at one to three California Bryophyte Working Group (CBWG) meetings held on January 18, 2010, January 28, 2013, and January 30, 2014. The CBWG is a committee of bryology experts that are familiar with the taxonomic, rarity, and/or conservation status of bryophytes in California. If you are interested in joining and/or learning more about this group, please contact the first author at asims@cnps.org or (916) 324-3816.

Didymodon californicus is a semi-rheophytic moss in the Pottiaceae that is known only from the North Coast and Central Sierra Nevada of California. It is included in sect. Vineales (Steere) R.H. Zander, due to having leaves channeled along the ventral costa surface, decurrent margins, and a suite of other characters. Most species in this section occur in western North America and could be confused with *D. californicus*, namely *D. brachyphyllus*, *D. eckeliae*, *D. insulanus*, *D. nicholsonii*, and *D. vinealis*. Of these, *D. vinealis* and *D. insulanus* appear to be most closely related to *D. californicus*, and share leaf shape and size, and shape of lamina cells. "However, both *D. vinealis* and *D. insulanus* differ from *D. californicus* in having recurved leaf margins, acute leaf apices ending in a conical cell, and percurrent or shortly excurrent costa" (Jiménez et al. 2014).

Didymodon californicus is known from rocky outcrops and seasonally submerged streambeds in openings of lower montane coniferous forest. It is submerged for a portion of its life from montane snow melt, then dry throughout summer and fall months after rivers have drained (Jiménez et al. 2014). *Didymodon californicus* occurs at an approximate elevation of 1,375 to 1,645 meters.

Didymodon californicus is known from only four occurrences, two from Mendocino National Forest in Glenn and Lake Counties, and two from Sierra National Forest in Fresno and Madera Counties. Due to its recent discovery and similarity to many other *Didymodon* taxa, there is a high potential for additional occurrences of *D. californicus* to show up. It is also very difficult if at all possible to identify in the field and therefore collections are necessary.

Threats to *D. californicus* are unknown. However, given that only four occurrences are known, and that it requires snow melt, it is possibly threatened by drought and global climate shifts. Based on its very recent discovery and the high potential for additional occurrences to exist, *D. californicus* is being added to California Rare Plant Rank 4.2. If future data suggests it is more common or rarer, we will re-evaluate its status at that time.

Actions

CNPS: Added to 4.2

CNDDDB: Added to G2G3 / S2S3

CNPS Inventory Record

Didymodon californicus J.A. Jiménez, Toren & Shevock

California beard-moss

Pottiaceae

CRPR 4.2

Fresno, Glenn, Lake, Madera

Musick Mtn. (397A) 3711923, Mammoth Pool Dam (417D) 3711933, Crockett Peak (565A) 3912247, Felkner Hill (580C) 3912256

Lower montane coniferous forest (openings) / rocky streambeds; elevation 1,375 to 1,645 meters

Rheophytic moss

Potentially threatened by global climate shifts. Similar to *D. insulanus* and *D. vinealis*.

See *Phytotaxa* 158(1):105-110 (2014) for original description.

Literature Cited

Jiménez, J.A., D. Toren, and J.R. Shevock. 2014. *Didymodon californicus* (Pottiaceae), a new species from California, U.S.A. *Phytotaxa* 158(1): 105-110.