

**Changed from California Rare Plant Rank 1B.3 to 4.2 in the CNPS Inventory on  
7 May 2020**

**Rare Plant Status Review: *Penstemon filiformis***  
**Proposed Change from California Rare Plant Rank 1B.3, G3 / S3 to 4.3, G3/ S3**  
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2 March 2020

Changes made to the original document are in blue text.

This species review is being expedited through a challenge cost share agreement between the California Native Plant Society and the USDA Forest Service, Pacific Southwest Region. Aside from being advanced as part of this agreement, the process, content, and information provided herein is not altered, modified, or developed differently in any way or form compared to other status reviews developed by CNPS.

### **Background and Taxonomy**

*Penstemon filiformis* (Keck) Keck is a perennial herb in the Plantaginaceae that is endemic to the Klamath Ranges of California. It has been included in the *CNPS Inventory* since the first edition (Powell 1974; CNPS 2019). When first added to the *Inventory* it was only known from two USGS 7.5" quadrangles in Shasta and Trinity counties, but is now known from 18 quadrangles in Shasta, Siskiyou, and Trinity counties.

### **Ecology**

*Penstemon filiformis* occurs in rocky, often serpentinite substrates, within cismontane woodland and lower montane coniferous forest at an approximate elevation of ~~450~~ 150 to 1,875 meters, and flowers between May and August, sometimes flowering as late as September. More information about *P. filiformis* can be found in the *CNPS Inventory* at <http://www.rareplants.cnps.org/detail/1231.html>.

### **Distribution and Abundance**

*Penstemon filiformis* is considered relatively common and abundant within the narrow range it occupies (Julie Kierstead pers. comm. 2019; Len Lindstrand pers. comm. 2019), and is currently known from a total of 96 occurrences. There are potentially six additional occurrences of *P. filiformis* represented from unprocessed data in the CNDDDB backlog. Of the 96 occurrences currently recognized, 32 are considered historical (occurrences not seen in the past 20 years are considered historical by the CNDDDB), and all are considered to be extant. Fifty-two occurrences are considered "excellent" or "good" (A or B), while 12 are ranked "fair" (C), one is ranked "poor" (D), and 31 are unranked. The population sizes of *P. filiformis* are fairly well known, with data available for 84 of the 96 occurrences. Eleven of its occurrences have population count/estimates of 1,000 or more individuals, with one occurrence exceeding 10,000 individuals. Based on the available data, the total number of known individuals of *P. filiformis* is estimated to be over 37,000 plants (population count/estimate data is available in the attached "PenstemonFiliformis\_20200302\_change" spreadsheet.). More than half of the occurrences (50) are on private land, 41 are located in

Shasta-Trinity National Forest, one is on state owned land, and the remaining four occurrences are on land of unknown ownership.

There is some question regarding the misidentification of *P. filiformis* with similar species that are more common. *Penstemon filiformis* is part of a group of penstemons that all have similar anthers, leading to occasional misidentifications (Julie Kierstead pers. comm. 2019). The *CNPS Inventory* (2019) indicates *P. filiformis* is confused with *P. laetus* var. *sagittatus*; a taxon that commonly occurs throughout the distribution of *P. filiformis* in the Klamath Ranges, extending east to the Cascade Range in California and north to Oregon. On the one hand, many mapped occurrences of *P. filiformis* may be misidentified as other similar *Penstemon* species (Brenna Montagne pers. comm. 2019). On the other, Julie Kierstead (pers. comm. 2019) implies that there are more *P. filiformis* occurrences than currently represented based on being labeled something else in herbaria. Either are seemingly likely possibilities and perhaps the number of misidentified records come close to equalizing each other out.

### Status and Threats

Two-thirds of the occurrences of *Penstemon filiformis* have listed threats in the CNDDB. Forty-nine occurrences of *P. filiformis* are noted to be threatened by direct or indirect impacts of timber harvest activities, including logging and road construction/maintenance. Additional threats noted include development, grazing, and non-native plants (CNDDB 2019). However, *Penstemon filiformis* has been observed to tolerate disturbance from these threats well, and is often found growing in places where disturbance has happened (Lusetta Sims, Julie Kierstead, Len Lindstrand III, and Dean Taylor pers. comms. 2019).

### Summary

With 52 occurrences ranked as “excellent” or “good” by CNDDB, *Penstemon filiformis* has met the general level of meriting down ranking from California Rare Plant Rank 1B to 4 based on occurrences numbers alone (in general, California Rare Plant Rank 1B contains plants that are known from fewer than 50 occurrences ranked as “excellent” or “good” by CNDDB). *Penstemon filiformis* does not appear to be in a trend towards extirpation in California at this time, and therefore currently appears to not be eligible for state listing. Nevertheless, the condition of *P. filiformis* occurrences after timber harvest and associated activities, along with information on the long-term trends and viability of populations in California, should continue to be documented and assessed in order to adequately determine the conservation status of this species.

Based on the available information, CNPS and CNDDB recommend re-ranking *Penstemon filiformis* from California Rare Plant Rank 1B.3 to 4.3. If occurrences of *P. filiformis* in California begin to trend downward, and/or if threats to its survival increase, CNPS and CNDDB will re-evaluate its status at that time.

### Recommended Actions

CNPS: Change *Penstemon filiformis* from CRPR 1B.3 to 4.2 ~~4.3~~

CNDDB: Change *Penstemon filiformis* from G3 / S3 to G3 / S3

**Current CNPS Inventory Record**

*Penstemon filiformis* (Keck) Keck

thread-leaved beardtongue

Plantaginaceae

CRPR 1B.3

Shasta, Siskiyou, Trinity

Lamoine (665B) 4012284, Damnation Peak (666A) 4012285, Trinity Center (666B) 4012286, Covington Mill (667A) 4012287, Siligo Peak (667B) 4012288, Rush Creek Lakes (667C) 4012278, Trinity Dam (667D) 4012277, Dunsmuir (682A) 4112223, Seven Lakes Basin (682B) 4112224, Chicken Hawk Hill (682C) 4112214, Tombstone Mtn. (682D) 4112213, Mumbo Basin (683A) 4112225, Tangle Blue Lake (683B) 4112226, Carrville (683C) 4112216, Whisky Bill Peak (683D) 4112215, Caribou Lake (684C) 4112218, Somes Bar (703B) 4112344, Orleans Mtn. (703C) 4112334

Cismontane woodland, lower montane coniferous forest / rocky, often serpentinite; elevation 450 – 1,875 meters.

Perennial herb. Blooms May-Aug

Possibly threatened by logging, road maintenance, and recreation. Confused with *P. laetus* var. *sagittatus*. See *University of California Publications in Botany* 16:394 (1932) for original description.

**Revised CNPS Inventory Record**

*Penstemon filiformis* (Keck) Keck

thread-leaved beardtongue

Plantaginaceae

CRPR ~~1B.3~~ 4.2 4.3

Shasta, Siskiyou, Trinity

Lamoine (665B) 4012284, Damnation Peak (666A) 4012285, Trinity Center (666B) 4012286, Covington Mill (667A) 4012287, Siligo Peak (667B) 4012288, Rush Creek Lakes (667C) 4012278, Trinity Dam (667D) 4012277, Dunsmuir (682A) 4112223, Seven Lakes Basin (682B) 4112224, Chicken Hawk Hill (682C) 4112214, Tombstone Mtn. (682D) 4112213, Mumbo Basin (683A) 4112225, Tangle Blue Lake (683B) 4112226, Carrville (683C) 4112216, Whisky Bill Peak (683D) 4112215, Caribou Lake (684C) 4112218, Somes Bar (703B) 4112344, Orleans Mtn. (703C) 4112334

Cismontane woodland, lower montane coniferous forest / rocky, often serpentinite; elevation 450 – 1,875 meters.

Perennial herb. Blooms May-Aug (Sep)

Changed from 1B.3 to 4.2 4.3 on 2020-05-07

More common than originally known. Possibly threatened by logging, road maintenance, and recreation. Reported to tolerate some types of disturbance. Confused with *P. laetus* var. *sagittatus*. See *University of California Publications in Botany* 16:394 (1932) for original description.

**Literature Cited**

California Natural Diversity Database (CNDDB). 2019. RareFind 5 [Internet]. California Department of Fish and Wildlife [Government Version, December 3, 2019].

CNPS, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-02). California Native Plant Society, Sacramento. Website <http://www.rareplants.cnps.org> [accessed December 3, 2019].

Powell, W.R. (ed.). 1974. Inventory of Rare and Endangered Plants of California. Special Publication No. 1. California Native Plant Society, Berkeley. 56 pp.