

Added to California Rare Plant Rank 4.3 of the CNPS Inventory on July 19, 2017

**Rare Plant Status Review: *Frasera tubulosa*
Proposed Addition to California Rare Plant Rank 4.3, G3 / S3**

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Background

Frasera tubulosa Coville is a perennial herb in the Gentianaceae known only from the southern Sierra Nevada of California. It is included in *The Jepson Manual* (Pringle 1993), and *The Jepson Manual Second Edition* (Baldwin 2012); the Gentianaceae treatment in the *Flora of North America* is not yet published. *Frasera tubulosa* was previously considered for addition to the CNPS Inventory but rejected as being too common. It was recently recommended again and found to have a limited distribution. *Frasera tubulosa* can be identified from other *Frasera* by a strongly ascending dense inflorescence and nectary pit margins with vertical oblong, basally tubular, distally fringed extensions (vs. widely divergent, generally open inflorescence or fringed nectary pit margins without vertical extensions) (Baldwin 2012).

Frasera tubulosa occurs in upper and lower montane coniferous forest in granitic or sandy soils at an approximate elevation of 955 to 3,290 meters, and is known to bloom from July to August (Baldwin 2012). Potential associates include *Eriogonum wrightii*, *Cistanthe umbellata*, *Oreonana clementis*, *Hulsea vestita*, *Eriogonum umbellatum*, *Achnatherum occidentale* ssp. *occidentale*, *Artemisia rothrockii*, *Chrysothamnus viscidiflorus* ssp. *viscidiflorus*, *Pinus jeffreyi*, and *Abies concolor*.

Frasera tubulosa is known from an estimated 47 occurrences from a total of 75 records. Of the 47 occurrences 37 are considered historical (occurrences not seen in over 20 years are considered historical by the CNDDDB); though the historical occurrences are expected to still be extant and historical merely due to lack of field surveys and updated reporting. All but four occurrences are located on federal public land, including Sequoia National Forest, Inyo National Forest, and lands managed by BLM; the remaining four have an unknown land ownership.

There are currently no documented threats to *Frasera tubulosa*. Due to the majority of its occurrences being on federally managed public lands, any potential threats to this species are considered minimal at this time.

Based on the available information, CNPS and CNDDDB recommend adding *Frasera tubulosa* to California Rare Plant Rank 4.3 of the CNPS Inventory. If knowledge on the distribution, threats, and rarity status of *F. tubulosa* changes in the future, we will re-evaluate its status at that time.

Recommended Actions

CNPS: Add *Frasera tubulosa* to CRPR 4.3

CNDDDB: Add *Frasera tubulosa* to G3 / S3

Draft CNPS Inventory Record

Frasera tubulosa Coville

Coville's green-gentian

Gentianaceae

CRPR 4.3

Fresno, Inyo, Kern, Tulare

Cinco (236d) 3511831, Claraville (237a) 3511843, Walker Pass (259a) 3511861, Alta Sierra (261a) 3511865, Rockhouse Basin (283b) 3511882, White Dome (283c) 3511872, Lamont Peak (283d) 3511871, Sirretta Peak (284a) 3511883, Cannell Peak (284d) 3511873, Tobias Peak (285d) 3511875, Haiwee Pass (306a) 3611821, Monache Mountain (306b) 3611822, Long Canyon (306d) 3611811, Hockett Peak (307b) 3611824, Bonita Meadows (307d) 3611813, Cirque Peak (329b) 3611842, Templeton Mtn. (329c) 3611832, Olanca (329d) 3611831, Chagoopa Falls (330b) 3611844, Kern Lake (330c) 3611834, Mineral King (331a) 3611845, Quinn Peak (331d) 3611835, Mt. Clarence King (373c) 3611874, Kearsarge Peak (373d) 3611873

Upper montane coniferous forest, lower montane coniferous forest/ granitic, sandy; elevation 955-3,290 meters.

Perennial herb. Blooms July to August.

Previously CBR; too common. More recently found to be of limited distribution. See *Proceedings of the Biological Society of Washington* 7(2):71-72 (1892) for original description.

Literature Cited

Baldwin, B. G. 2012. *Frasera*. Pp. 813-814 in Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.), *The Jepson manual: vascular plants of California*, second edition. University of California Press, Berkeley, CA.

Coville, F.V. 1892. Descriptions of new plants from southern California, Nevada, Utah, and Arizona: *Frasera tubulosa* sp. nov. *Proceedings of the Biological Society of Washington* 7(2):71-72.

Pringle, J.S. 1993. *Swertia*. Pp. 670-672 in *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley.