

Added to List 1B.2 on 3/9/10

**Rare Plant Status Review: *Nemacladus calcaratus*
Proposed New Add to List 1B.3, G1 S1**

Nicholas Jensen (CNPS) and Roxanne Bittman (CNDDDB)
February 4, 2010

Changes since the original status review are in blue.

Background

Nemacladus calcaratus is an annual in the Campanulaceae endemic to a small area of Tulare County. It is described as a new species by Nancy Morin in *The Journal of the Botanical Research Institute of Texas* 2(1):397-400 (2008), and is included in *The Jepson Manual*, 2nd Edition (available online at <http://ucjeps.berkeley.edu/tjm2/review/treatments/campanulaceae-fp-morin.html#89052>). According to Morin (2008), "it is the first species of *Nemacladus* known to have a definitive nectar spur....The flat ovary apex and relatively large corolla with all petals arranged on the upper part is also distinctive." *N. calcaratus* flowers between May and June.

N. calcaratus is only known from four occurrences in the Chimney Creek area of Tulare County near the southern end of the Pacific Crest Trail in the southern Sierra Nevada. It is known from a small area of habitat at elevations between 1900 and 2200 meters. Suitable habitat within and beyond the known range of *N. calcaratus* should be searched for additional occurrences. The population size at occurrences of *N. calcaratus* is unknown. However, one herbarium label indicates that *N. calcaratus* is "common but inconspicuous."

N. calcaratus is known from open areas on decomposed granite substrate within pinyon and juniper woodland habitat.

~~There are no reported threats to *N. calcaratus*.~~ *N. calcaratus* grows near the Pacific Crest Trail, and may be threatened by recreational activities. *N. calcaratus* is possibly threatened by foot traffic and grazing. Most of the habitat in the range of *N. calcaratus* is managed by the Bureau of Land Management.

Based on this information CNPS and CNDDDB recommend that *N. calcaratus* be added to CNPS List 1B.2.

Recommended Actions

CNPS: Add to CNPS List 1B.2

CNDDDB: Add to CNDDDB as G1 / S1

Please review the draft CNPS Inventory record below, respond Yes or No on the proposal to add this species to the Inventory and CNDDDB, and provide any edits/comments. If responding No, please provide supporting information.

Draft CNPS Inventory Record

Nemacladus calcaratus Morin

"Chimney Creek nemacladus"

Campanulaceae

List 1B.3

Tulare

White Dome (283C) 3511872), Lamont Peak (283D) 3511871

PJWld / open, granitic; elevation 1900-2100 meters.

Herbaceous annual. Blooms May-June.

Known from fewer than 5 occurrences. [Possibly threatened by foot traffic and grazing](#). See *J. Bot. Res. Inst. Texas* 2 (1): 399 (2008) for original description.