

**Rare Plant Status Review: *Nemacladus secundiflorus* var. *secundiflorus*
Proposed New Add to List 4.3, G3T3? S3?**

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Changes made since original status review appear in blue

Background

Nemacladus secundiflorus var. *secundiflorus* is a California endemic, herbaceous annual in the Campanulaceae. *N. secundiflorus* var. *secundiflorus* will be included in *The Jepson Manual*, 2nd Edition. There are no varieties for *N. secundiflorus* recognized in *The Jepson Manual* (1993), but since then extensive work has been done on *Nemacladus* by Nancy Morin. Recently, Morin described a new variety, *N. secundiflorus* var. *robbinsii*, in the *Journal of the Botanical Research Institute of Texas* 2(1):397-400 (2008). As a result, *N. secundiflorus* var. *secundiflorus* is the new name for "typical" *N. secundiflorus*. *N. secundiflorus* var. *secundiflorus* is differentiated from *N. secundiflorus* var. *robbinsii* based on its larger flowers and wider corolla tube.

N. secundiflorus var. *secundiflorus* occurs on dry, sandy to gravelly flats and slopes from 200 to 2000 meters in elevation. According to Nancy Morin (pers. comm. 2010), both varieties of *N. secundiflorus*, "occur on what seem to be little desert outposts. In the midst of chaparral or grassland on "normal" soil, there will be a little area (sometimes only 8' x 8') of pure white sand, or at most sand and small-diameter gravel, and that is where these plants are."

N. secundiflorus var. *secundiflorus* is known from approximately 41 occurrences from 4 counties in the South Coast Ranges and the Southern High Sierra Nevada. It is known from Monterey County in the north to San Luis Obispo and Kern County in the south, and as far east as Tulare County.

There are no reported threats to occurrences of *N. secundiflorus* var. *secundiflorus*. The population size, population trends, area of occupancy, and land ownership at occurrences of *N. secundiflorus* var. *secundiflorus* are not well known.

N. secundiflorus var. *secundiflorus* occurs over a relatively large geographic area (it is known from 17-24 quads in 4 counties). Of the 41 known occurrences 7 were documented in the past 20 years (occurrences that have not been "seen" in the past 20 years are considered historic by the CNDDDB) and 17 occurrences are only represented by herbarium specimens that were documented more than 50 years ago.

List 1B typically contains plants known from 50 or fewer viable occurrences that are ranked as either good or excellent by CNDDDB. List 4 typically includes plants with greater than 50 viable occurrences.

The small number of known occurrences seems to argue for placement on List 1B, but the possibility that *N. secundiflorus* var. *secundiflorus* may be undercollected indicates

that List 4.3 may be more appropriate. Consequently, CNPS and CNDDDB recommend that *N. secundiflorus* var. *secundiflorus* be added to List 4.3, G3T3? S3?.

Recommended Actions

CNPS: Add to CNPS List 4.3

CNDDDB: Add to CNDDDB as G3T3?/ S3?

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

Draft CNPS Inventory Record

Nemacladus secundiflorus G.T. Robbins var. *secundiflorus*

large-flowered nemacladus

Campanulaceae

List 4.3

Alta Sierra? 261A (35118F5), Bradley 249D (35120G7), California Valley? 244D (35120C1), Camatta Ranch 245A (35120D3), Carmel Valley 343B (36121D6), Cholame 268A (35120F3), Creston 269D (35120E5), Fairview 284B (35118H4), Kernville 284C (35118G4), La Panza 244C (35120C2), La Panza NE? 244A (35120D1), La Panza Ranch 244B (35120D2), Lake Isabella North 260B (35118F4), Lamont Peak 283D (35118G1), Parkfield? 292B (35120H4), Ranchito Canyon? 293D (35120G5), San Miguel 293C (35120G6), Santa Margarita 246A (35120D5), Santa Margarita Lake 245C (35120C4), Shedd Canyon 268C (35120E4), Stockdale Mountain? 293A (35120H5), Tierra Redonda Mountain 294C (35120G8), Walker Pass 259A (35118F1), Wilson Corner? 245B (35120D4)

elevation 200-2000 meters.

Herbaceous annual. Blooms Apr-Jun.