

**Deleted from California Rare Plant Rank 4.3 of the CNPS Inventory on
June 12, 2014**

**Rare Plant Status Review: *Malacothamnus niveus*
Proposal to Delete from California Rare Plant Rank 4.3, G3Q / S3.3**
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Background

Malacothamnus niveus is a California Rare Plant Rank (CRPR) 4.3 plant that has been included in the CNPS Inventory since the First Edition (Powell 1974). It is included in the Malvaceae and is a shrub endemic to the South Coast Ranges of California (Slotta 2012). In both *The Jepson Manual* (Bates 1993) and *The Jepson Manual, Second Edition* (Slotta 2012), *M. niveus* was treated as a synonym of *M. jonesii*. Another close relative, *M. gracilis*, was also treated as a synonym of *M. jonesii*, and is being reviewed concurrently in a separate status review. The *Flora of North America* treatment for Malvaceae is not yet available.

Eastwood (1936a) described *Malvastrum fragrans* nom. illeg. hom. from the type locality at the El Dorado School near Santa Margarita, San Luis Obispo County, California. Shortly thereafter, she learned that the name had already been used for another plant, so Eastwood (1936b) described the species under a new name, *Malvastrum niveum*. Later, Kearney (1951) moved the plant to the genus *Malacothamnus*, under the name *Malacothamnus niveus*. For consistency, we refer to *Malacothamnus niveus* for the remainder of the document. Eastwood (1936a) noted the plant's close affinity to *M. jonesii*, separating *M. niveus* by its larger calyx and corolla, and "much more lovely" overall appearance. She also mentioned that *M. niveus* is snowy white, due to its dense white tomentum. Kearney (1951) separated *M. niveus* from *M. jonesii* and *M. gracilis* based on *M. niveus*'s more closely white-tomentose (versus loosely pubescent) stems with short (versus long) hairs as well as the leaves that are truncate or subcuneate (versus mostly cordate) at the base. Munz (1959) also recognized *M. niveus*, emphasizing the dense tomentum in splitting it from *M. jonesii* and *M. gracilis*. Bates (1963) composed the next major revision of the genus, in which he only recognized two species in the entire genus: *M. chilensis* and *M. fasciculatus*; *M. niveus* was not recognized, even at the infraspecific level. Unfortunately, we were unable to obtain a copy of Bates' (1963) dissertation for review.

The most recent study of the genus *Malacothamnus* was completed by Slotta (2004), which used both molecular and morphological analyses. Both her work and other evidence suggest that *M. niveus* should be treated as a synonym of *M. jonesii*. Slotta's (2004) molecular phylogeny did not produce any clear resolution with regard to *M. niveus*. However, some other taxa that also did not clearly resolve continue to be recognized; this lack of resolution may result from continued intergradation or recent divergence of taxa. Slotta (2004) also examined a suite of 19 morphological characters for many *Malacothamnus* taxa, and used MDS and UPGMA analyses to infer

phylogenetic relationships from the data. In the MDS analysis, *M. niveus* clearly aligned with *M. jonesii*. The UPGMA analysis also did not support recognition of *M. niveus*.

The geographic distribution of *M. niveus* as well as the presence of many specimens intermediate to typical *M. jonesii* further suggest that *M. niveus* likely does not warrant taxonomic recognition. Plants typical of *M. niveus* are interspersed with typical *M. jonesii*, as well as plants intermediate between the two taxa, throughout San Luis Obispo County (D. Wilken pers. comm. 2013; Consortium of California Herbaria, CCH 2013). There are currently ten specimens of *M. niveus* in the CCH (2013), and an additional thirteen specimens that were formerly treated as *M. niveus* which have since been annotated to *M. jonesii*. These specimens are distributed broadly across San Luis Obispo County throughout much of the range of *M. jonesii* (CCH 2013). The lack of a specific geographic area to which *M. niveus* is confined, as well as a lack of consistent morphological differences, suggest that it does not warrant taxonomic recognition.

Based on the available information, CNPS and CNDDDB recommend deleting *M. niveus* from the CNPS Inventory, due to its synonymy with *M. jonesii*. We are also proposing to keep *M. jonesii* at CRPR 4.3 in a separate concurrent status review. If more information on *M. niveus* becomes available, CNPS and CNDDDB will re-evaluate its status at that time.

Recommended Actions

CNPS: Delete *Malacothamnus niveus* from CRPR 4.3

CNDDDB: Delete *Malacothamnus niveus* from G3Q / S3.3

Current CNPS Inventory Record

Malacothamnus niveus (Eastw.) Kearn.

San Luis Obispo County bush-mallow

Malvaceae

CRPR 4.3

Monterey, San Luis Obispo, Santa Barbara

Miranda Pine Mtn. (219D) 35120A1, La Panza (244C) 35120C2, Pozo Summit (245D)

35120C3, Santa Margarita (246A) 35120D5, Atascadero (246B) 35120D6

Chaparral; elevation 365 – 890 meters.

Perennial deciduous shrub. Blooms May to July.

A synonym of *M. jonesii* in *The Jepson Manual*. Potentially threatened by mining.

Revised CNPS Inventory Record

Malacothamnus niveus (Eastw.) Kearn.

Considered But Rejected: A synonym of *M. jonesii*; a CRPR 4.3 taxon.

Literature Cited

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