

**Changed *M. elongata* to 4.3, and kept *M. mielichhoferiana* as 2B.3 in the CNPS Inventory on November 23, 2015**

**Rare Plant Status Review: *Mielichhoferia elongata* & *M. mielichhoferiana*  
Proposed Change of *M. elongata* from CRPR 2B.2 to 4.3, G4 / S3 to G5 / S4  
Proposed Deletion of *M. mielichhoferiana* from CRPR 2B.3, G4 / S1**

Aaron E. Sims (CNPS) and Roxanne Bittman (CNDDDB)

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Changes made to the original document are in blue text.

## Background

*Mielichhoferia elongata* (Hoppe & Hornsch. ex Hook.) Nees & Hornsch. is a California Rare Plant Rank (CRPR) 2B.2 moss that has been included in the CNPS Inventory since the 6th Edition (RPSAC and Tibor 2001). It is being proposed to change to CRPR 4.3 at this time due to a lack of significant threats, and because of a substantial increase of its known occurrences and distribution in California. *Mielichhoferia mielichhoferiana* (Funck in Hooker) Loeske is a CRPR 2B.3 moss that has been included in the Inventory since 2008 (CNPS 2015). It **was originally** is being proposed for deletion from the Inventory because all of the California material of *M. mielichhoferiana* (or *M. mielichhoferi*) was **reported in the California Moss eFlora** found to actually be *M. elongata* (Wilson 2015); **however, this report turned out to be erroneous and it is still known from California (J. Shevock and P. Wilson pers. comm. 2015).**

*Mielichhoferia elongata* was previously known from a total of 20 occurrences in California., and what was once considered *M. mielichhoferiana* in California was previously only known from a single occurrence, from the Marble Mountains of Siskiyou County (CNDDDB 2015). Due to being only known from a single occurrence, the inclusion of what was thought to be *M. mielichhoferiana* in California with *M. elongata* does not necessitate a status change of *M. elongata* in of itself. However, **The** recent review of herbarium specimen labels of *M. elongata* and *M. mielichhoferiana* at CAS (CAS Images 2014) and in online specimen databases (Bryolab 2015; CNABH 2015; NYBG 2015), revealed an **combined** increase of occurrences of this species from 21 to **48** 54. An additional occurrence from Plumas County that was submitted as a field survey form to the CNDDDB (*Dillingham 2561*, Dillingham 2011) makes this species currently known from a total of **49** 52 occurrences in California. Although this occurrence number is only slightly **at** over the general threshold for CRPR 2B taxa (CRPR 2B typically includes plants known from 50 occurrences or less in California), the fact that it has increased by nearly two and a half times the previous known amount is telling that *M. elongata* is much more common than originally thought. Its known distribution in California has also significantly increased. **With the inclusion of the record of *M. mielichhoferiana*, and** Through herbarium specimen review, *M. elongata* is now known from an additional **5** 6 counties in California (previously 11 counties), and **15** 46 additional USGS 7.5" Quadrangles (previously 18 quads). Its elevation range has also broadened from 500-1,300 meters to 0-1,960 meters in California (**it's highest range at occurrence number 44**) (CAS Images 2014; Bryolab 2015; CNABH 2015; CNDDDB 2015, Google Inc. 2015; NYBG 2015). This increased occurrence number and distribution, combined with the lower number of moss surveys in California overall compared to

vascular plants, and the limited number of bryologists doing moss surveys in the state, indicate that *M. elongata* is too common to continue being a CRPR 2B plant.

*Mielichhoferia elongata* is known mostly from protected federal (28 34 occurrences) and state (10 occurrences) lands in California, with two occurrences on city/county lands, one occurrence on a Native American Reservation, one occurrence on private land, and seven occurrences with an unknown land ownership (see attached "Locations\_MielichhoferiaElongata" spreadsheet for occurrence land ownership information). With nearly 80% of its occurrences on protected state or federal lands, known populations of *M. elongata* in California should be considered relatively stable at this time.

The increase of known occurrences also minimizes the overall possible threats to *M. elongata*. No threat information is included in the CNDDDB (2015) for *M. elongata* or *M. mielichhoferiana*. The Plumas County occurrence of *M. elongata* is potentially threatened by road maintenance (Dillingham 2011); however, since this threat is only documented for a single occurrence, it does not represent a significant threat to *M. elongata* in California as a whole.

Based on the available information, CNPS and CNDDDB recommend including all records of *Mielichhoferia mielichhoferiana* in California as *M. elongata*, and changing the status of *M. elongata* from CRPR 2B.2 to 4.3 in the CNPS Inventory. If additional information becomes available in the future which might constitute a change in the rarity and/or threat status of *M. elongata* in California, we will re-evaluate its status at that time.

### Recommended Actions

CNPS: Change *Mielichhoferia elongata* from CRPR 2B.2 to 4.3;

Delete *Mielichhoferia mielichhoferiana* from CRPR 2B.3

CNDDDB: Change *Mielichhoferia elongata* from G4 / S3 to G5 / S4;

Delete *Mielichhoferia mielichhoferiana* from G4 / S4

### Current CNPS Inventory Record

*Mielichhoferia elongata* (Hoppe & Hornsch. ex Hook.) Nees & Hornsch.

elongate copper moss

Mielichhoferiaceae

CRPR 2B.2

Colorado, Oregon, Tennessee

Fresno, Humboldt, Lake, Mariposa, Marin, Nevada, Placer, Plumas, Santa Cruz, Trinity, Tulare

Giant Forest (354D) 36118E7, Wren Peak (375D) 36118G7, Sacate Ridge (376B)

36119H2, Verplank Ridge (376D) 36119G1, Trimmer (377A) 36119H3, Davenport

(408C) 37122A2, Ano Nuevo (409D) 37122A3, El Portal (438A) 37119F7, Kinsley

(438B) 37119F8, Bolinas (467B) 37122H6, Whispering Pines (533C) 38122G6, Dutch

Flat (541A) 39120B7, Washington (557D) 39120C7, Nevada City (558D)

39121C1, Crescent Mills (605C) 40120A8, Helena (668C) 40123G2, Del Loma (669D)

40123G3, Weitchpec (687B) 41123B6

Cismontane woodland (metamorphic, rock, usually vernal mesic); elevation 500 – 1300 meters

Moss.

Threatened in PLU Co. by road maintenance. Commonly called "copper mosses" - distinctive glossy blue-green coloration aids identification. See *Bryol. Germ.* 186:41 (1831) for original description.

Available online at: <http://www.rareplants.cnps.org/detail/2079.html>

### Revised CNPS Inventory Record

*Mielichhoferia elongata* (Hoppe & Hornsch. ex Hook.) Nees & Hornsch.

elongate copper moss

Mielichhoferiaceae

CRPR 4.3

Alaska, Colorado, Maine, Michigan, Montana, New York, Oregon, Tennessee  
Fresno, Humboldt, Inyo, Lake, Marin, Mariposa, Monterey, Nevada, Placer, Plumas,  
San Mateo, Santa Clara, Santa Cruz, Siskiyou, Trinity, Tulare, Tuolumne  
Carmel Valley (343B) 3612146, Lone Pine (351D) 3611851, Giant Forest (354D)  
3611857, Wren Peak (375D) 3611877, Sacate Ridge (376B) 3611982, Verplank Ridge(  
376D) 3611971, Santa Cruz (387B) 3612281, Big Basin (408B) 3712222, Davenport  
(408C) 3712212, Felton (408D) 3712211, Franklin Point (409A) 3712223, Ano Nuevo  
(409D) 3712213, Calaveras Reservoir (427A) 3712147, El Portal (438A) 3711967,  
Kinsley (438B) 3711968, Feliciano Mtn. (438C) 3711958, Tuolumne (457B) 3712082,  
Jawbone Ridge (457D) 3712071, Bolinas (467B) 3712286, Inverness (485D) 3812217,  
Whispering Pines (533C) 3812276, Dutch Flat (541A) 3912027, Washington (557D)  
3912037, Nevada City (558D) 3912131, Crescent Mills (605C) 4012018, Sims Mountain  
(652A) 4012365, Helena (668C) 4012372, Derick (668D) 4012371, Del Loma (669D)  
4012373, Willow Creek (670B) 4012386, Weitchpec (687B) 4112326, Somes Bar  
(703B) 4112344, Forks of Salmon (703D) 4112333, ~~Marble Mountain (719C) 4112352~~  
Broadleaved upland forest, cismontane woodland, chaparral, coastal scrub, lower  
montane coniferous forest, seeps and springs, subalpine coniferous forest /  
metamorphic rock, usually acidic, usually vernal mesic, often roadsides, sometimes  
carbonate; elevation 0 – 1960 meters

Moss.

Previously CRPR 2B.2; more common than originally thought. Potentially threatened in PLU Co. by road maintenance. Commonly called "copper mosses" - distinctive glossy blue-green coloration aids identification. Includes all CA material of *M. mielichhoferiana*; a taxon that does not occur in CA. See *Bryologia Germanica* 2(2):186 (1831) for original description.

### Current CNPS Inventory Record

~~*Mielichhoferia mielichhoferiana* (Funck in Hooker) Loeske~~

~~Mielichhofer's copper moss~~

~~Mielichhoferiaceae~~

~~CRPR 2B.3~~

~~Siskiyou~~

~~Marble Mountain (719C) 4112352~~

~~Subalpine coniferous forest; elevation unknown~~

~~Moss.~~

Element Code: NBMUS4Q022 (*M. elongata*), NBMUS4Q020 (*M. mielichhoferiana*)

~~Known in California from only 1 occurrence.~~

~~Available online at: <http://www.rareplants.cnps.org/detail/3337.html>~~

### **Revised CNPS Inventory Record**

~~*Mielichhoferia mielichhoferiana*~~

~~Considered But Rejected: Previously CRPR 2B.3. Not in CA; name misapplied to *M. elongata*; a rare taxon.~~

### **Literature Cited**

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