Element Code: ?

**Added to California Rare Plant Rank 4.2 of the CNPS Inventory on May 4, 2015**

# Rare Plant Status Review: *Malacothamnus fasciculatus* var. *catalinensis*
## Proposed Addition to California Rare Plant Rank 4.2, G4T3 / S3

Danny Slakey (CNPS), Aaron E. Sims (CNPS) and Roxanne Bittman (CNDDB)
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Changes made to the original document are in blue text.

**Background**

*Malacothamnus fasciculatus* var. *catalinensis* is a shrub in the Malvaceae that is endemic to Santa Catalina Island (according to the most recent treatments). The plant was treated as a synonym of typical *M. fasciculatus* in *The Jepson Manual* (Bates 1993), but was resurrected in Slotta's (2004) treatment of the genus, and therefore included in *The Jepson Manual, Second Edition* (*TJM 2*; Slotta 2012; available online at http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=61706). *Malvastrum catalinense* was first described as a Catalina Island endemic by Eastwood (1936), then was given the name *M. fasciculatus* var. *catalinensis* in Kearney's (1951) revision of the genus. However, Kearney (1951) noted that specimens from Point Mugu (Ventura County), near Laguna Beach (Orange County), and between Oceanside and San Juan Capistrano (Orange or San Diego County) were indistinguishable from island plants of var. *catalinensis*. Likewise, Munz (1959 and 1974) noted that island plants were closely matched by plants from the Santa Monica Mountains (Los Angeles and Ventura Counties). On the other hand, D. Wilken (pers. comm. 2014) noted that the plants from Catalina Island and the Santa Monica Mountains are not well-matched. Following Kearney's treatment, Bates (1963) chose to not recognize var. *catalinensis*. Unfortunately, we were unable to obtain a copy of Bates' (1963) dissertation. Benesh and Elisens (1999) later performed an in-depth morphological study of *Malacothamnus fasciculatus* and related taxa, and concluded that none of the varieties of *M. fasciculatus* could be characterized unambiguously. With regard to var. *catalinensis*, Benesh and Elisens (1999) noted that specimens did not group together in their morphological analyses, and that there was no morphological evidence to support recognition of var. *catalinensis*, either as an island endemic or island-mainland disjunct.

Slotta (2004), however, resurrected the variety after its long period of synonymy. She noted several flaws in Benesh and Elisens' (1999) publication, particularly that too few morphological characters were used, and that some qualitative characters could have benefited from quantitative analysis. Slotta (2004) examined 27 morphological characters (both vegetative and reproductive parts), and found that characters quantifying pubescence, calyces, and the involucres were the most valuable for distinguishing taxa in her statistical analyses. Based on the morphological data, Slotta (2004) resurrected var. *catalinensis*, separating it from other conspecifics (both island and mainland) by its woolly (vs. not woolly) pubescence, long-rayed (vs. short-rayed) trichomes, stout (>1.5 cm) pedicels (vs. slender, approaching 1.5 cm), and cordate (vs. subulate to lanceolate) calyx lobes. Slotta (2004) treated var. *catalinensis* as a Catalina Island endemic, but did not elaborate on her decision to exclude mainland plants.

Sent to: SW, D. Bates, A. Catalano, A. Kelly, J. Mack, T. Slotta on 03/05/2015

However, Slotta (2004) did examine at least one specimen previously treated as a mainland occurrence of var. *catalinensis*, *Wheeler 736* from Point Mugu, and annotated it to var. *fasciculatus* (Consortium of California Herbaria, CCH, 2014).

*Malacothamnus fasciculatus* var. *catalinensis* occurs in coastal scrub and chaparral (CCH 2014, Slotta 2012). A few occurrences are known from roadcuts, near a wet stream, in a grassy field, in canyon bottoms or on sunny slopes (CCH 2014), suggesting that the plant is somewhat of a habitat generalist. The plant occurs between 10 and 320 meters in elevation (CCH 2014), and flowers from April to July (Catalina Island Conservancy 2014; CCH 2014).

There are currently about 32 known occurrences of *M. fasciculatus* var. *catalinensis*. Of these, at least 26 are on lands owned by the Catalina Island Conservancy. A few occurrences have an unknown landowner, while one occurrence may be on land owned by the University of Southern California. The plant generally occurs in small populations, as modifiers such as “locally uncommon” or “localized” are often used on specimen labels, and many occurrences consist of fewer than five plants (CCH 2014; Catalina Island Conservancy Data 2014). Half of the occurrences have been seen recently, while half have not been seen in over 20 years. Much of the occurrence data has been collected opportunistically by Catalina Island Conservancy staff, and as a result, areas near roads are much more thoroughly documented (A. Catalano pers. comm. 2014). More populations could possibly be found on more remote parts of the island.

The main threat to *M. fasciculatus* var. *catalinensis* is browsing by introduced herbivores, including the mule deer and American bison. However, it is not a preferred food source for these herbivores, so it is generally able to complete its reproductive cycle and disperse its seeds (S. Ratay pers. comm. 2013).

Based on the available information, CNPS and CNDDB recommend adding *Malacothamnus fasciculatus* var. *catalinensis* to California Rare Plant Rank (CRPR) 4.2. Although currently only known from 32 occurrences, its occurrence mostly on Catalina Island Conservancy lands, general habitat preferences, and mostly opportunistic survey data collection suggests that *M. fasciculatus* var. *catalinensis* is not significantly threatened and that it is more common than currently documented. If more information on this plant becomes available in the future, we will re-evaluate it at that time.

**Recommended Actions**
CNPS: Add *Malacothamnus fasciculatus* var. *catalinensis* to CRPR 4.2
CNDDB: Add *Malacothamnus fasciculatus* var. *catalinensis* to G4T3 / S3

**New CNPS Inventory Record**
*Malacothamnus fasciculatus* (Nutt. ex. Torr. & A. Gray) Greene var. *catalinensis* (Eastw.) Kearney
Santa Catalina Island bush-mallow

Malvaceae
CRPR 4.2
Santa Catalina Island
Santa Catalina East (SCTE) 3311833, Santa Catalina South (SCTS) 3311834, Santa Catalina North (SCTN) 3311844, Santa Catalina West (SCTW) 3311844
Coastal scrub, chaparral; elevation 10 to 320 meters
Perennial shrub. Blooms April to July.
Threatened by fire suppression. Possibly threatened by feral herbivores. ~~Most recent treatment lists this plant~~ Treated as an island-endemic in *TJM 2*; ~~but some~~ earlier treatments also placed it on the mainland. See *Leaflets of Western Botany* 1(18):215-216 (1936) for original description, and 6(6):138 (1959) for taxonomic treatment.

**Literature Cited**

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