Rare Plant Status Review: *Malacothamnus marrubioides*
Proposed Addition to California Rare Plant Rank 4.2, G3 / S3

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This status review is being expedited through an agreement between the California Native Plant Society and the Utom Conservation Fund. Aside from being advanced as part of this agreement, the process, content, and information provided herein is not altered, modified, or developed differently in any way or form compared to other status reviews developed by CNPS.

Background and Taxonomy

Malacothamnus marrubioides (Durand & Hilg.) Greene is a perennial shrub in the mallow family (Malvaceae) known from Los Angeles and Ventura counties, California. It is included in *The Jepson Manual* (Bates 1993), *Jepson eFlora* (Morse 2023c), and *Flora of North America* (Bates 2015). Identification is discussed by Morse: "*Malacothamnus marrubioides* is generally distinguished from the rest of the genus by the combination of relatively short stellate trichome rays, long calyx bracts, clearly pointed flower buds, and an often-sticky inflorescence. It is most morphologically similar to some plants of the inland form of *M. foliosus*, which it is highly disjunct from" (Morse 2023b). The species name *marrubioides* means "of or like *Marrubium*" and refers to the similarity between its leaves and those of *Marrubium vulgare* (Charters 2025).

Ecology

Malacothamnus marrubioides grows in chaparral, coastal sage scrub, oak woodland, and riparian woodland (Calflora 2025, CCH2 2025). Like all or most *Malacothamnus* taxa, this species is fire-adapted, and populations usually peak after burning occurs (Morse 2023b). Occurrences range from approximately 55–1170 m (180–3840 ft) in elevation (Morse 2023c, Calflora 2025, CCH2 2025, iNaturalist 2025, Morse 2025 pers. obs.). Associated plant taxa include *Adenostoma fasciculatum*, *Artemisia californica*, *Ceanothus* spp., *Ericameria crassifolium*, *Eriogonum fasciculatum*, *Quercus* spp., *Salvia leucophylla*, and *S. mellifera* (CCH2 2025). The main flowering period is from April to July, peaking in May or June; later flowering occurs when plants are mostly in fruit, and small numbers of flowers have been observed on plants during every month of the year (Calflora 2025, CCH2 2025, iNaturalist 2025, Morse 2025 pers. obs.).

Distribution and Abundance

Malacothamnus marrubioides is endemic to California, where it is known from approximately 104 occurrences in Los Angeles (100) and Ventura (4) counties (Calflora 2025, CCH2 2025, iNaturalist 2025, Morse 2025 pers. obs.). Ninety-three of the occurrences are recent, having been observed in the last 20 years, and 11 occurrences are historical. Fifty-nine of the records are at least partially on lands managed by Angeles National Forest (40), BLM (3), California State Parks (2), The Nature Conservancy (2), or local open space/parklands (14). The remaining 45 occurrences are on land of unknown and presumably private ownership. Morse (2023c) reported the extent of occurrence (EOO) and area of occupancy (AOO) as 1998 km^2 and 340 km^2, respectively. With the addition of more recent records, these values are approximately 2166 km^2 (EOO) and 396 km^2 (AOO) (GeoCAT; Bachman et al. 2011). Seven occurrences located along the Santa Clara River have small numbers of plants likely washed down from the main range. These populations are unlikely to be self-sustaining and when removed from these calculations results in an EOO of 1014 km^2 and AOO of 372 km^2 (GeoCAT; Bachman et al. 2011). Note that

the methodology used to estimate these parameters includes unsuitable habitat or developed areas and should not be interpreted as the actual occupied area or an estimate of suitable habitat (Burgman and Fox 2003). While some sites include population estimates, few of the occurrences have been systematically surveyed. In addition, many plants only persist for a short number of years after an area burns, and the species can spread via rhizomes (Morse 2025 pers. obs.). These factors make actual population sizes (genets) difficult to estimate. Twenty-nine occurrences have either qualitative descriptions of abundance (16) or numerical data (13). Qualitative descriptions include Abundant (2), Locally Common (2), Uncommon (9), and Rare (3). Numerical estimates ranged from one to 2000 plants: Four sites had from one to 10 plants, one had from 11 to 50, three had 51 to 100, three had 101 to 500, and two had 1001 to 2000 plants (Calflora 2025, CCH2 2025, Morse 2025 pers. obs.). Twenty-five herbarium collections are excluded from this analysis: six have vague or uncertain locations, including the type specimen (*Heermann s.n.* GH) which cites a location in Madera County that may be erroneous; one is a confirmed hybrid; and 18 are either confirmed misidentifications or have questions about their identification (Morse 2023b, CCH2 2025). Four iNaturalist (2025) records are also excluded: one cannot be identified to species, two have obscured locations, and one from Orange Co. is a correctly identified population introduced outside the taxon's natural range.

Status and Threats

Malacothamnus marrubioides currently has no conservation status (CNDDB 2025, NatureServe 2025). Threats to the species include hybridization, development, and changing fire regimes. *Malacothamnus* species are very prone to hybridization and most have distinct ranges with occasional hybrid zones between taxa. In Figure 1, below, observations in the core range of *M. marrubioides* are shown as circles and other species and hybrids of *Malacothamnus* are shown as blue diamonds. *Malacothamnus* species surrounding the range of *M. marrubioides* are *M. davidsonii*, *M. fasciculatus* var. *laxiflorus*, and *M. orbiculatus*, and intermediates between *M. marrubioides* and the latter two taxa are common (Morse 2023c). The color of the *M. marrubioides* circles indicates the distance from the nearest other species or hybrid, with distance categories and the risk of hybridization based on known foraging distances of honeybees (Hagler et al. 2011). Hybridization risk ranges from negligible (yellow) to high (red). The distribution and colors seen in the map represent the likely natural range of *Malacothamnus marrubioides* and mostly natural amount of hybridization risk. One exception is the hybridization risk posed by poorly chosen restoration plantings, one of which is known from this area. As shown in Figure 1, the core range of the species is in and around Santa Clarita, an area of Los Angeles County that is rapidly developing. The yellow circles show what are essentially two core populations of *M. marrubioides* that are not overly affected by hybridization, with the southern population occurring where major development is focused. These yellow observations are the highest priority for conservation. *Malacothamnus marrubioides* probably used to occur in the blank area over Santa Clarita. Since the taxon has no special status, it may have been recorded on plant lists during project permitting but it was probably not collected or mapped. Therefore, the number of records from currently developed areas is likely an underestimate of its former abundance in and around Santa Clarita. Because hybridization is a threat, there is essentially nowhere for the species to go if the core population areas are lost to development or other threats. On the positive side, there are *Malacothamnus* observation gaps on both the northern and eastern ends of the *M. marrubioides* range where additional occurrences could be found. Post-fire surveys would be needed to confirm presence or absence in those areas. While all the occurrences are potentially threatened by fire suppression or the alteration of fire regimes, increasing fire frequency may be

beneficial to some extent, if *Malacothamnus* plants live long enough to replenish the seed bank and increased fire frequency does not lead to increased competition with nonnative plants.

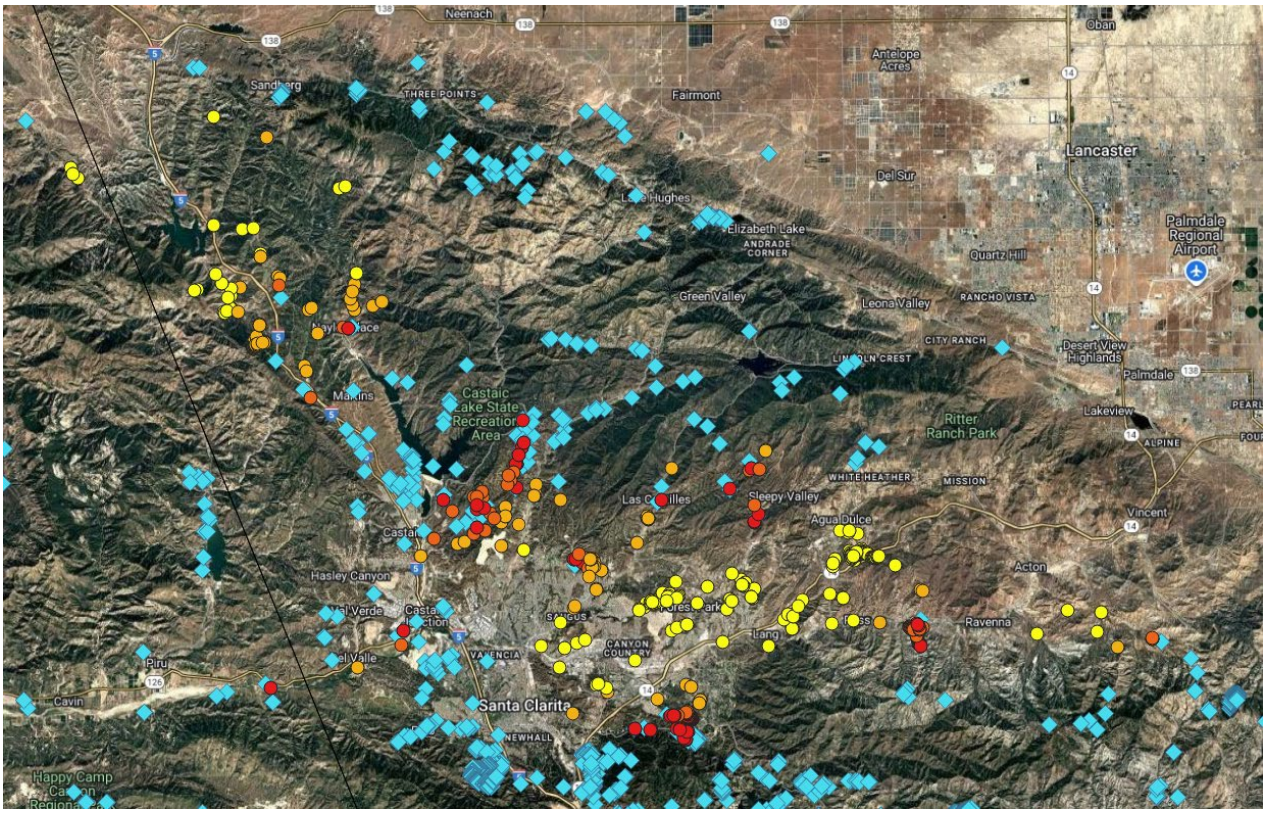

Figure 1: Colored circles represent hypothesized hybridization risk of *Malacothamnus marrubioides* based on distance from other species and hybrids, which are shown as blue diamonds. Red circles indicate locations of *M. marrubioides* categorized with high hybridization risk (0-500 m); dark orange is moderate risk (501-1000 m); light orange is low risk (1001-3000 m); and yellow is a negligible risk (3001-7400 m).

Summary

Based on the available information, CNPS and CNDDB propose adding *Malacothamnus marrubioides* to California Rare Plant Rank 4.2 in the CNPS Inventory. If knowledge of the distribution, threats, or rarity status of *Malacothamnus marrubioides* changes in the future, it may be re-evaluated at that time.

Recommended Actions

CNPS: Add *Malacothamnus marrubioides* to CRPR 4.2
CNDDB: Add *Malacothamnus marrubioides* to G3 / S3

Draft CNPS Inventory Record

Malacothamnus marrubioides (Durand & Hilg.) Greene
Santa Clarita bushmallow
Malvaceae
USDA Plants Symbol: MAMA3
CRPR 4.2
Counties: Los Angeles, Ventura
States: California

Quad name (code): ACTON 3411842, AGUA DULCE 3411843, BLACK MTN. 3411867, COBBLESTONE MTN. 3411857, GREEN VALLEY 3411854, LIEBRE MTN. 3411866, MINT CANYON 3411844, MOORPARK 3411838, NEWHALL 3411845, PACIFICO MOUNTAIN 3411841, SAN FERNANDO 3411834, SANTA PAULA 3411931, VAL VERDE 3411846, WARM SPRINGS MOUNTAIN 3411855, WHITAKER PEAK 3411856
General Habitat: Chaparral, oak woodlands, riparian woodlands
Microhabitat Details: Fire-adapted; populations usually peak after burning occurs.
Microhabitat: Fire follower
Elevation: 55–1170 m (180–3840 ft)
Life form: Deciduous perennial shrub
Blooms (Jan–Mar) Apr to July (Aug–Dec).
Notes: Most similar to the inland form of *M. foliosus*, which is allopatric. Intermediates with *M. fasciculatus* var. *laxiflorus* and *M. orbiculatus* are common where their ranges meet *M. marrubioides*.
Threats: Threatened by development and hybridization. Potentially threatened by altered fire regimes and competition from non-native plants.
Selected References:

- CNPS Status Review: Proposed addition to CRPR 4.2, G3 / S3 (2025)
- Original Description: *Leaflets of Botanical Observation and Criticism* 1(15): 208 (1906)
- Taxonomic Treatment: *Malacothamnus 3* (2023) [https://doi.org/10.6084/m9.figshare.23937066.v1]
- Species Account: *Malacothamnus 3* (2023) [https://doi.org/10.6084/m9.figshare.23937066.v1]

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