Added to California Rare Plant Rank 1B.2 on December 6, 2011

Rare Plant Status Review: *Monardella boydii*
Proposed New Add to List 1B.2 ~~1B.3~~, G2Q / S2

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Changes made to the original document appear in blue text.

Background

Monardella boydii is a perennial subshrub to shrub in the Lamiaceae that is endemic to San Bernardino County, California. It was recently described in 2009 by Mark Elvin and Andy Sanders, and will be included in *The Jepson Manual, Second Edition* (*TJM 2*; available online at: http://ucjeps.berkeley.edu/tjm2/review/treatments/lamiaceae_all.html#91092). Its specific epithet is in reference to Steve Boyd of the Rancho Santa Ana Botanic Garden Herbarium, who led the expedition that first collected this plant in the Ord Mountains in 1988 (Elvin and Sanders 2009). As described by Elvin and Sanders (2009), *M. boydii* is most similar to *M. robisonii*, *M. arizonica* (an Arizona endemic), *M. linoides*, and two other new taxa that occur in the Mojave Desert, *M. eremicola* and *M. mojavensis*. Based on cladograms analyzing morphological characteristics, the relationship of *M. boydii* to these other taxa is unresolved. Elvin and Sanders (2009) therefore provisionally described *M. boydii* due to its apparent lack of resolution in aims to minimize the necessary taxonomic revisions once more information can be obtained. Although very similar to these other taxa, *M. boydii* has a series of discrete differences. It differs from *M. linoides* by its branched inflorescences, smaller cymose flower clusters, smaller and narrower bracts, and shorter calyx, along with its distinct and separate geographic distribution. It is distinguished from *M. robisonii* by having calyces with minute, glandular trichomes, along with stems that contain minute trichomes that are not as long, spreading, or glandular as those of *M. robisonii*. Lastly, *M. boydii* is distinguished from *M. eremicola* and *M. mojavensis* based on leaf, bract, and pubescence characteristics, along with having a different geographic range. It flowers from August to October (Elvin and Sanders 2009, *TJM 2*).

Monardella boydii grows in mixed desert scrub, desert riparian scrub, and juniper woodland from approximately 1400 to 1650 meters in elevation. It is found primarily on alluvial soils and in cracks of bedrock in washes on canyon bottoms and rocky slopes (Elvin and Sanders 2009, *TJM 2*).

Monardella boydii is known only from approximately 7 occurrences in the Ord and Rodman mountains in the southern Mojave Desert of San Bernardino County. The majority of its occurrences are noted as having scarce or uncommon numbers of plants (Elvin and Sanders 2009, M. Elvin pers. comm. 2010, Consortium of California Herbaria 2011). However, the actual population size, population trends, area of occupancy, and land ownership of the occurrences of *M. boydii* are not well known. Suitable habitat

within and beyond the known range of *M. boydii* should be searched for potential additional occurrences.

Threats to *M. boydii* are not known, however, due to its restricted distribution and range it should be considered of conservation concern.

Based on the available information, CNPS and CNDDB recommend that *Monardella boydii* be added to California Rare Plant Rank 1B.2 ~~1B.3~~ of the CNPS Inventory.

Recommended Actions
CNPS: Add to CNPS 1B.2 ~~1B.3~~
CNDDB: Add to CNDDB G2Q / S2

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

Draft CNPS Inventory Record
Monardella boydii A.C. Sanders & Elvin
Boyd's monardella
Lamiaceae
Rank 1B.2 ~~1B.3~~
San Bernardino
Ord Mountain (156A) 3411667, Camp Rock Mine (155B) 3411666
Mojavean desert scrub, pinyon and juniper woodland, riparian scrub (desert) / Usually in alluvial soils and cracks of bedrock in washes on canyon bottoms and rocky slopes; elevation 1400-1650 meters.
Perennial shrub. Blooms August-October.
Known only from the Ord and Rodman mtns. Potentially threatened by mining, vehicles, wind and solar energy development, and climate change. Similar to *M. arizonica*, *M. eremicola*, *linoides*, *M. mojavensis*, and *M. robisonii*; further study needed to indicate its relationship to these other taxa. See *Novon* 19(3):315-343 (2009) for original description.