

Kept as Rank 1B.2 in the CNPS Inventory on September 4, 2012

Rare Plant Status Review

Proposed Rank Change ~~Retention~~ of *Monardella nana* ssp. *leptosiphon* from as 1B.2 to 3.2, and Change from G4G5T2 / S2.2 to G4G5T2Q / S2

Aaron Sims (CNPS) and Roxanne Bittman (CNDDB)

July 24, 2012

Changes made to the original document appear in blue text.

Background

Monardella nana ssp. *leptosiphon* has been included on list 1B of the CNPS Inventory since the 2nd Edition (1980). It is included in *The Jepson Manual* (1993), but is considered a synonym of *M. nana* without the recognition of infraspecific taxa in *The Jepson Manual, Second Edition (TJM 2; available online at: http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=33940)*. *Monardella nana* ssp. *leptosiphon* was originally described as *M. villosa* var. *leptosiphon* by John Torrey (1859), who noted that it differed from ordinary *M. villosa* in being much less hairy, having longer petioled leaves which are not crenate-serrate, flower heads that are less crowded, and in having long-exserted corolla tubes. Less than twenty years later, L. R. Abrams (1912) instead treated it as a subspecies of *M. nana* based on its resemblance in habit, foliage and pubescence. It was subsequently treated as *M. nana* ssp. *leptosiphon* in Abrams (1951), Munz (1959), and Shreve and Wiggins (1964). *Monardella nana* ssp. *leptosiphon* is known to flower from June to July.

According to *TJM 2* treatment authors' A. C. Sanders and M. A. Elvin (pers. comm. 2011), there is too much intermediacy between the current subtaxa in the *M. nana* species complex to warrant recognition at this time, and there are also problems with the type specimen of *M. nana* ssp. *leptosiphon* and its distribution. Subspecies *leptosiphon* has generally been applied to plants that are claimed to be endemic to Palomar, San Diego County, but the type is from much farther south in the San Felipe area (note common name 'San Felipe monardella' in *TJM*, 1993), and is not the same as the Palomar material (A. Sanders pers. comm. 2011). Almost all of the true *M. nana* ssp. *leptosiphon* specimens are from Hot Springs Mountain, a few miles east of Palomar proper, and most of the specimens from the Palomar Mountains labeled as ssp. *leptosiphon* are mis-identifications of *M. nana* ssp. *tenuiflora* (S. White pers. comm. 2011). There is also a lot of intergradation among the four varieties, as well as some evident intergradations among larger flowered forms of *M. nana* with *M. macrantha* (A. C. Sanders and Scott White pers. comm. 2011); so much so that ultimately *M. nana* and *M. macrantha* might not be recognized at the species level (A. C. Sanders pers. comm. 2011).

Although none of the subtaxa are reasonably discrete, there are some morphological tendencies that relate to them (A. C. Sanders pers. comm. 2011). They also mostly correspond to different geographic regions, and are believed to be real biological entities that are only partially reproductively isolated (S. White pers. comm. 2011). The

key characters in Munz (1959) and *The Jepson Manual* (1993), however, do not work, and a new key is needed (S. White pers. comm. 2011). They can mainly be separated by morphology of hairs on the stems (with ssp. *leptosiphon* having quite distinctive, thin, more or less wavy hairs that are often fairly glandular), and also *mostly* correspond to separate geographic regions (with *M. nana* ssp. *arida* occurring in arid slopes of the San Jacinto and Santa Rosa Mountains; ssp. *tenuiflora* occurring in cismontane regions of the San Jacinto, Santa Rosa, and Palomar Mountains; ssp. *nana* occurring in the Peninsular Ranges and interior San Diego County; and ssp. *leptosiphon* occurring mostly from Hot Springs Mountain just a few miles east of Palomar proper). However, it is important to emphasize the word 'mostly' (S. White pers. comm. 2011).

Shreve and Wiggins (1964) note that the distribution of *M. nana* ssp. *leptosiphon* extends south into northern Baja California. Reports of it from Baja California, however, cannot be verified (Reiser 1994), and Wiggins made vast assumptions about potential species in Baja California (T. Oberbauer pers. comm. 1999). Therefore, *M. nana* ssp. *leptosiphon* is presumed to be a California endemic, and the recognition of it from Baja California in the CNPS Inventory will be removed.

Monardella nana ssp. *leptosiphon* is threatened by recreational activities, with some occurrences bisected by trails and/or adjacent to campsites and campgrounds; it is also threatened by ~~fuel modification projects, timber harvest activities,~~ and grazing (CNDDDB 2012, A. Sanders pers. comm. 2012, F. Roberts pers. comm. 2012).

Based on the available information, CNPS and CNDDDB recommend ~~re-ranking~~ **keeping** *Monardella nana* ssp. *leptosiphon* ~~from as a 1B.2 taxon to 3.2~~ in the CNPS Inventory. There is too much intermediacy to define clear subtaxa in the *M. nana* species complex at this time, and there is a lot more work that needs to be done on this group; **however, it is apparent that this taxon is a real biological entity that is only partially reproductively isolated** (S. White pers. comm. 2011, J. Rebman pers. comm. 2012). ~~If further research more clearly resolves the taxonomic status of *M. nana* ssp. *leptosiphon*, it will be re-evaluated by CNPS and CNDDDB at that time.~~

Recommended Actions

CNPS: Change **Keep** *Monardella nana* ssp. *leptosiphon* ~~from as 1B.2 to 3.2~~

CNDDDB: Change *M. nana* ssp. *leptosiphon* from G4G5T2 / S2.2 to G4G5T2Q / S2

The revised CNPS Inventory record is below. Please respond Yes or No on the proposal to re-rank this species in the Inventory and CNDDDB, and provide any edits/comments on the proposed change.

Revised CNPS Inventory Record

Monardella nana Gray ssp. *leptosiphon* (Torr.) Abrams

San Felipe monardella

Lamiaceae

Rank ~~3.2~~ **1B.2**

Riverside, San Diego

Monument Peak (019B) 32116H4, Mount Laguna (019C) 32116G4, Earthquake Valley (032C) 33116A4, Ranchita (033A) 33116B5, Julian (033D) 33116A5, Hot Springs Mtn. (048D) 33116C5, Aguanga (049A) 33116D7, Boucher Hill (049C) 33116C8, Palomar Observatory (049D) 33116C7, San Jacinto Peak (083C) 33116G6

Chaparral, Lower montane coniferous forest; elevation 1200 – 1855 meters.

Perennial rhizomatous herb, blooms June to July.

~~Previously on List 1B.2.~~ Known mostly from Hot Springs Mtn. Most of the plants labeled as ssp. *leptosiphon* from the Palomar Mtns. are mis-identifications of *M. nana* ssp. *tenuiflora*. May not warrant taxonomic recognition due to the following: problems with the type specimen and its distribution, too much intermediacy between the current subtaxa in the *M. nana* species complex, a lot of intergradation among the four subspecies, and evident intergradations among larger flowered forms of *M. nana* with *M. macrantha*; needs further study. Threatened by recreational activities, fuel modification projects, timber harvest activities, and grazing. Not in *TJM 2*. See *Report of the U.S. and Mexican Boundary Survey*, p. 129 (1859) by W. Emory for original description, and *Muhlenbergia* 8:31 (1912) for revised nomenclature.

Literature Cited

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