

Deleted *Deinandra increscens* ssp. *foliosa* from 1B.2, and retained *D. paniculata* as 4.2 in the CNPS Inventory on October 29, 2012

Rare Plant Status Review: Proposed deletion of *Deinandra increscens* ssp. *foliosa* and ~~*D. paniculata*~~ from Rank 1B.2 and retention of *D. paniculata* on Rank 4.2, respectively

Danny Slakey (CNPS), Aaron E. Sims (CNPS) and Roxanne Bittman (CNDDDB)
May 16, 2012

Changes made to the original document appear in blue text.

Background

Deinandra increscens ssp. *foliosa* is an annual herb in the Asteraceae family that was first included in the CNPS Inventory, 6th Edition (2001), and is currently a Rank 1B.2 taxon. It is known from only five occurrences in the South Coast Ranges of San Luis Obispo and Santa Barbara counties (CNDDDB 2012).

Deinandra increscens ssp. *foliosa* was included in *The Jepson Manual* (1993) but is considered a synonym of *Deinandra paniculata* in *The Jepson Manual, Second Edition* (*TJM 2*; available online at http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=80177) and the *Flora of North America* (*FNA*; available online at http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=250066475).

Hoover (1970) noted that *Hemizonia paniculata* plants from the Salinas Valley were distinct in having very leafy stems, and described them as *H. paniculata* ssp. *foliosa*. It was then treated as *H. increscens* ssp. *foliosa* by Tanowitz (1982) and later treated as *Deinandra increscens* ssp. *foliosa* by Baldwin (1999).

Subsequent taxonomic work using molecular data showed that *D. increscens* ssp. *foliosa* is actually nested within *D. paniculata* (*TJM 2*, *FNA*, D. Keil and B. Baldwin pers. comm. 2012). Before molecular analyses were completed, it appeared that plants previously treated as *D. increscens* ssp. *foliosa* from the South Coast Ranges may have represented a unique variety of *D. paniculata* (*FNA*, B. Baldwin pers. comm. 2008). Completion of the molecular work, however, showed that these populations did not merit taxonomic distinction from typical *D. paniculata* (B. Baldwin pers. comm. 2012).

Deinandra paniculata is currently a Rank 4.2 taxon in the CNPS Inventory, occurring from the Central Coast Ranges to as far south as northern Baja California. It is currently listed in the CNPS Inventory as occurring in Orange, Riverside, San Bernardino, and San Diego counties, as well as in Baja California. The range extension associated with the new treatment adds plants from San Luis Obispo, Santa Barbara, and Monterey counties. There are also three records of *D. paniculata* listed in the Consortium of California Herbaria (CCH – 2012) from outside of its circumscribed range – in Kern and Alameda counties. CNPS and CNDDDB have not documented an exact number of occurrences within California, but there are 283 records of *D. paniculata* in the CCH (2012), plus an unknown number of occurrences in Baja California. A quick analysis to search for duplicate specimens shows that the Consortium collections represent no

more than 236 occurrences; a more detailed analysis would be needed to determine the exact number of occurrences. *Deinandra paniculata* is likely possibly too common to be a CNPS Rank 4 plant due to its expanded range (B. Baldwin pers. comm. 2012). Furthermore, some field botanists who are familiar with *Deinandra paniculata* agreed that it is too common for CNPS Rank 4, even without consideration of the expanded range (J. Wood and S. White pers. comm. 2012). Other field botanists familiar with this species, however, note that the bulk of its range in southern California may be under significant threats from development, and many populations have already been extirpated due to urbanization (V. Scheidt, F. Roberts, and A. Sanders pers. comm. 2012)

The relatively high number of Consortium records, and recent increase in its known range and distribution, and personal communications with botany experts, all suggests that ~~of~~ *D. paniculata* is may be too common for California Rare Plant Rank 4. However, based on its high number of historical occurrences being extirpated (over 10%) and its high number of occurrences that have some degree of threat (possibly over 40%) (F. Roberts pers. comm. 2012), it is apparent that it should be retained as a Rank 4 species. Based on the available information and the recent taxonomic changes within this group, CNPS and CNDDDB recommend that both *D. increscens* ssp. *foliosa* and ~~*D. paniculata*~~ be deleted from the CNPS Inventory (it will be treated as a synonym of *D. paniculata* and placed on the Considered But Rejected list); and that *D. paniculata* be maintained as a California Rare Plant Rank 4.2 taxon.

Recommended Actions

Deinandra increscens* ssp. *foliosa

CNPS: Delete from CNPS 1B.2

CNDDDB: Delete from CNDDDB G4G5T2 / S2.2

Deinandra paniculata

CNPS: ~~Delete from~~ Retain as CNPS 4.2

CNDDDB: ~~Delete from~~ Retain as CNDDDB G3G4 / S3.2

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

Current Revised CNPS Inventory Records

Deinandra increscens ssp. *foliosa*:

<http://www.rareplants.cnps.org/detail/1891.html>

Considered But Rejected: A synonym of *D. paniculata*.

Deinandra paniculata:

<http://www.rareplants.cnps.org/detail/1892.html>

Deinandra paniculata (A. Gray) Davidson & Moxley

paniculate tarplant

Asteraceae

Synonym: *Deinandra increscens* ssp. *foliosa*

Rank 4.2

California, Baja California

Orange (ORA), Riverside (RIV), San Bernardino (SBD), San Diego (SDG), San Luis Obispo (SLO), Santa Barbara (SBA)

Guadalupe (196A) 34120H5, Arroyo Grande NE (221A) 35120B5, Santa Margarita Lake (245C) 35120C4, Pozo Summit (245D) 35120C3, Piedras Blancas (272A) 35121F3, Jamul Mountains (010B)? 32116F8, Otay Mesa (010C) 32116E8, National City (011A) 32117F1, Imperial Beach (011D)? 32117E1, San Marcos (035B) 33117B2, San Luis Rey (036A) 33117B3, Beauty Mountain (048B) 33116D6, Aguanga (049A) 33116D7, Vail Lake (049B) 33116D8, Pechanga (050A) 33117D1, Temecula (050B)? 33117D2, Bonsall (050C) 33117C2, Margarita Peak (051B) 33117D4, Las Pulgas Canyon (051C)? 33117C4, San Clemente (052A) 33117D5, Anza (066C) 33116E6, Hemet (067B) 33116F8, Sage (067C) 33116E8, Cahuilla Mtn. (067D) 33116E7, Winchester (068A) 33117F1, Romoland (068B) 33117F2, Murrieta (068C) 33117E2, Bachelor Mtn. (068D) 33117E1, Lake Elsinore (069A) 33117F3, Alberhill (069B) 33117F4, Wildomar (069D) 33117E3, Santiago Peak (070A) 33117F5, El Toro (070B) 33117F6, San Juan Capistrano (070C) 33117E6, Canada Gobernadora (070D) 33117E5, Laguna Beach (071D) 33117E7, Sunnymead (085B) 33117H2, Perris (085C) 33117G2, Lakeview (085D) 33117G1, Riverside East (086A) 33117H3, Riverside West (086B) 33117H4, Lake Mathews (086C) 33117G4, Steele Peak (086D) 33117G3, Corona North (087A) 33117H5, Corona South (087D) 33117G5, Fontana (107C) 34117A4

Coastal scrub, valley and foothill grassland, vernal pools / usually vernal mesic, sometimes sandy; elevation 25 – 940 meters.

Annual herb. Blooms April to September.

Some historical occurrences extirpated by urbanization. Threatened by development. Potentially threatened by road widening. Includes plants previously treated as *D. increscens* ssp. *foliosa* from SBA and SLO cos.

Confused with *D. conjugens* and *D. fasciculata*. See *Hemizonia paniculata* in *TJM* (1993). See *Proceedings of the American Academy of Arts and Sciences* 19:17 (1883) for original description.

Literature Cited

Baldwin, B.G. 1999. New combinations and new genera in the North American tarweeds (Compositae – Madiinae). *Novon* 9(4):468.

Consortium of California Herbaria (CCH). 2012. Data provided by the participants of the Consortium of California Herbaria. Regents of the University of California, Berkeley. Accessed on March-April, 2012. Available online at: ucjeps.berkeley.edu/consortium

Hoover, R.F. 1970. The vascular plants of San Luis Obispo County, California. 288.

Tanowitz, B.D. 1982. Taxonomy of *Hemizonia* sect. *Madiomeris* (Asteraceae: Madiinae). Systematic botany 7(3):330.