

Added to California Rare Plant Rank 2.2 on April 11, 2012**Rare Plant Status Review: *Penstemon pseudospectabilis* ssp. *pseudospectabilis*
Proposed New Add to Rank 2.2, G4G5T3T5 / S3**

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March 6, 2012

Changes made to the original document appear in blue text.

Background

Penstemon pseudospectabilis ssp. *pseudospectabilis* is a perennial herb in the Plantaginaceae family that occurs in the Sonoran Desert from Arizona to southeastern California. It is included as *Penstemon pseudospectabilis* in *The Jepson Manual* (1993) and *The Jepson Manual, Second Edition (TJM 2)*; available online at http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=37063); the *Flora of North America* treatment for Plantaginaceae is not yet available. We are treating the taxon at the subspecific level because another subspecies – *P. pseudospectabilis* ssp. *connatifolius* – is found in New Mexico and Arizona. The two subspecies have not been combined into a single species, nor have they been split into separate species (K. Allred pers. comm. 2012, T. Lowrey pers. comm. 2012, K. Allred 2012), so the CNPS Inventory should reflect the true degree of variation within the species. *Penstemon pseudospectabilis* was first described by Jones in 1908, and several infraspecific taxa (subspecies *bicolor*, *clutei*, and *connatifolius*) were added to the species by Keck (1937). Shortly thereafter, a revision by Clokey and Keck (1939) split out *P. bicolor* and *P. clutei* as separate species, leaving only ssp. *connatifolius* and ssp. *typicus* (*pseudospectabilis*) as the two infraspecific taxa within the species. Most subsequent floras of California did not recognize that there are two subspecies of *P. pseudospectabilis* (e.g., Munz 1974, Munz and Keck 1959, *The Jepson Manual* 1993 and *TJM 2*), although we were unable to find any reason for this omission. *Penstemon pseudospectabilis* ssp. *pseudospectabilis* has glandular-pubescent pedicels and calyces, as well as glaucous, coarsely serrate-dentate leaves; ssp. *connatifolius* has a glabrous pedicels and calyces, as well as leaves that are glaucescent to green and finely serrate-dentate (Clokey and Keck 1939) *Penstemon pseudospectabilis* blooms from January to May (Consortium of California Herbaria – CCH – 2012).

Penstemon pseudospectabilis ssp. *pseudospectabilis* is found in Mojavean and Sonoran Desert scrub communities. It frequently occurs in sandy washes, but can also occur on rocky slopes. In California it occurs between 80 and 1935 meters (CCH 2012).

Penstemon pseudospectabilis ssp. *pseudospectabilis* is known from about 31 occurrences in the eastern Mojave Desert (CCH 2011). The Granite Mountains and Whipple Mountains, both in San Bernardino County, have fairly extensive collections of *P. pseudospectabilis*, probably a result of the presence of the UC Sweeney Granite Mountains Desert Research Center, as well as the composition of the *Vascular Flora of the Whipple Mountains* (De Groot 2007). Some occurrences are within the UC Reserve or a BLM Wilderness area, and should be considered well-protected. Only nine of the

31 known occurrences have been recently documented (occurrences not documented in the last twenty years are considered historical by the CNDDDB). One of the occurrences is highly disjunct from all the others, occurring near [Sunset Peak](#), in Los Angeles County ([Bruff RSA699008](#)); this specimen [was re-filed under *P. spectabilis*, and *P. pseudospectabilis* ssp. *pseudospectabilis* is highly unlikely to occur there due to vast differences in habitat and precipitation \(S. De Groot pers. comm. 2012\).](#) ~~should be reviewed, and if possible, the site should be visited to confirm its identity.~~ Many parts of the California deserts have had relatively little botanical exploration, and *P. pseudospectabilis* ssp. *pseudospectabilis* should be sought in other sandy washes and rocky slopes of the Sonoran and Mojave deserts.

Outside of California, *P. pseudospectabilis* ssp. *pseudospectabilis* occurs only in Arizona, where it is common (J. Anderson pers. comm. 2012).

Occurrences of *P. pseudospectabilis* ssp. *pseudospectabilis* from the Palo Verde and Sheephole Mountains are potentially threatened by proposed nearby wind and solar energy projects. The occurrences in the Whipple Mountains could also be subject to impacts related to the Colorado River Aqueduct (J. Andre pers. comm. 2012). Many of the occurrences are very small (often ten plants or fewer), so local extirpations could easily occur. About half of the known populations are potentially threatened. The remaining half, consisting of plants from the Old Woman, Granite, and Turtle Mountains, should be considered well-protected (J. Andre pers. comm. 2012). Off-highway vehicle (OHV) use may also pose a threat to occurrences found in desert washes, which can frequently serve as OHV routes.

Based on the available information, CNPS and CNDDDB recommend that *P. pseudospectabilis* ssp. *pseudospectabilis* be added to California Rare Plant Rank 2.2. If current records in California are later found to be an under-representation of its actual distribution and frequency, its status will be re-evaluated at that time.

Recommended Actions

CNPS: Add to CNPS 2.2

CNDDDB: Add to CNDDDB G4G5T3T5 / S3

Please review the draft 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.

Draft CNPS Inventory Record

Penstemon pseudospectabilis M.E. Jones ssp. *pseudospectabilis*

desert beardtongue

Plantaginaceae

Rank 2.2

[Arizona](#)

Imperial, ~~Los Angeles?~~, Riverside, San Bernardino

Sent to ES/D, M. Wetherwax, N. Holmgren, K. Allred, T. Lowrey, S. DeGroot, J. Anderson on 3/6/2012

Bighorn Basin (176C) 3411576, Blythe (058D) 3311455, Castle Dome (150B) 3411564, Dale Lake (100B) 3411526, Desert Center (061B) 3311564, Gene Wash (120C) 3411432, Homer Mountains (198C) 3511418, Mid Hills (200B) 3511524, Mohawk Spring (123A) 3411447, Mopah Peaks (123D) 3411437, ~~Mt. Baldy (108B)? 3411726~~, Picacho Peak (012B) 3211486, Whipple Mts. SW (121C) 3411434, Whipple Wash (121D) 3411433

Mojavean desert scrub, Sonoran desert scrub/ often sandy washes, sometimes rocky; 80 – 1935 meters.

Perennial herb. Blooms January – May.

Potentially threatened by wind and solar energy development. [Possibly threatened by vehicles. Similar to and intergrades with *P. stephensii*.](#) See *P. pseudospectabilis* in *The Jepson Manual* (1993) and *TJM 2*; ~~other ssp. (ssp. *connatifolius*)~~ is known from AZ and NM. See *Contributions to Western Botany* 12:66 (1908) for original description, and *American Midland Naturalist* 18(5):790-829 (1937) for taxonomic treatment.