

Added to Rank 3.2 of the CNPS Inventory on September 6, 2012**Rare Plant Status Review: *Tiquilia canescens* var. *pulchella*****Proposed New Add to Rank 4.2 3.2, G5T3T4 / S3?**

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Changes made to the original document appear in blue text.

Background

Tiquilia canescens var. *pulchella* is a perennial subshrub in the Boraginaceae family that is only known from the Sonoran Desert in southeastern California and southwestern Arizona. It is included 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=67185); the *Flora of North America* treatment for Boraginaceae is not yet available. This plant was first described as *Coldenia canescens* var. *pulchella* by Johnston (1939). Along with all of the other New World *Coldenia* species, it was later moved to the genus *Tiquilia* by Richardson (1976). It has longer and wider flowers that have a deeper color (blue to lavender vs. white, pink or lavender) than *T. canescens* var. *canescens*, the only other variety within the species (*TJM 2*; Tropicos 2012). The typical variety is more broadly distributed, extending from southwestern California to Texas and New Mexico. Kearney and Peebles (1960) noted that var. *pulchella* is poorly understood taxonomically, and that field observations were needed to understand infraspecific variation within *T. canescens*. No other treatments, to our knowledge, mention taxonomic issues with the varieties of this species. *Tiquilia canescens* blooms from February until May in California.

Tiquilia canescens var. *pulchella* is restricted to Sonoran Desert scrub communities. It is often found on rocky ridges or slopes, and sometimes along desert washes. In California it is found between 250 and 700 meters in elevation.

There are at least ~~ten~~ **eleven** known occurrences of *T. canescens* var. *pulchella* in California. ~~Eleven~~ **Nine** additional herbarium specimens, representing up to seven new occurrences from eastern Riverside and Imperial counties are identified only as *T. canescens*, and should be annotated to the variety level in order to determine their identity. Determinations to the variety level can be difficult since flowers are needed and this plant is often seen when not in flower. An understanding of the true abundance and distribution of *T. canescens* var. *pulchella* will likely require appropriately-timed surveys to be conducted in a wet year; access to the Chocolate Mountains Naval Air Gunnery Range would also be helpful (R. Kelley pers. comm. 2012). Only three of the ten occurrences have been documented in the last twenty years (occurrences not documented in the past twenty years are considered historical by the CNDDDB), and only five occurrences have been documented in the past 50 years. At least one of the occurrences is located within the Chocolate Mountains Aerial Gunnery Range (Department of Defense).

Tiquilia canescens var. *pulchella* is ranked G5T3T4 by NatureServe (2012), but is not state ranked (SNR) in Arizona. NatureServe (2012) also lists this plant as occurring in Nevada, based on Kartezs' (1988) report of its occurrence in the Muddy Mountain in Clark County, Nevada. However, the herbarium specimen from the Muddy Mountains housed at the University of Nevada Las Vegas Herbarium was reviewed and determined to be *T. canescens* var. *canescens* (W. Niles pers. comm. 2012). We have been unable to determine its overall abundance in Arizona, although Kearney and Peebles (1961) note that it occurs in the Castle Dome, Kofa, and Plomosa Mountains of Yuma County, Arizona. There are at least 6 known collections of *T. canescens* var. *pulchella* and an additional 32 collections that have not been identified to subspecies from Yuma County (Southwest Environmental Information Network, SEINET, 2012).

Many of the known California occurrences of *Tiquilia canescens* var. *pulchella* are threatened by solar and wind energy development projects in the Sonoran Desert (J. Andre pers. comm. 2012). Occurrence(s) on Department of Defense lands may also be threatened by naval weapon testing activities. [Since *T. canescens* var. *pulchella* grows in flatter areas it might be threatened by vehicles, however, this will have to be evaluated on a site by site bases depending on vehicle restrictions at each occurrence \(S. De Groot pers. comm. 2012\).](#)

Until a better understanding of the abundance of *Tiquilia canescens* var. *pulchella* in California becomes available, R. Kelley (pers. comm. 2012), treatment author in *TJM 2*, recommends a tentative listing of Rank 4 in the CNPS Inventory. Based on the available information, CNPS and CNDDDB recommend that *Tiquilia canescens* var. *pulchella* be added to California Rare Plant Rank 4-2 [3.2](#). [A better understanding of the distribution of this taxon is needed, and its taxonomic distinctiveness has also been called into question.](#) If current records in California are later found to be an under- or over-representation of its actual distribution and frequency, it will be re-evaluated by CNPS and CNDDDB at that time.

Recommended Actions

CNPS: Add to CNPS 4-2 [3.2](#)

CNDDDB: Add to CNDDDB G5T3T4 / 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

Tiquilia canescens (DC.) A.T. Richardson var. *pulchella* (I.M. Johnst.) A.T. Richardson
~~woody~~ [Chocolate Mountains](#) tiquilia
 Boraginaceae
 Rank 4-2 [3.2](#)
 Imperial, Riverside, San Bernardino
 Arizona

Buzzards Peak (026A) 3311427, Chemehuevi Peak (147D) 3411455, Frink NW (044B) 3311546, Ninemile Wash (026C) 3311418, Picacho Peak (012B) 3211486, Roosevelt Mine (059D) 3311457, [East of Red Canyon \(062D\) 3311555](#)

Sonoran desert scrub/ sometimes slopes, ridges, or washes; elevation 250 - 700 meters.

Perennial shrub. Blooms Feb to May.

[Move to List 2 or 4? Location and rarity information needed. Many herbarium specimens of *T. canescens* not determined to variety; annotations needed, yet difficult to distinguish between varieties in dried material; needs study. Many occurrences historical; need field surveys.](#) Known only from the Sonoran Desert. Threatened by solar and wind energy development. Possibly threatened by military activities [and vehicles](#). See *Journal of the Arnold Arboretum* 20(3):379 (1939) for original description, and *Sida* 6(3):235-240 (1976) for taxonomic treatment.