

**Deleted from California Rare Plant Rank 1B.2 of the CNPS Inventory on
March 24, 2015**

**Rare Plant Status Review: *Arctostaphylos canescens* subsp. *sonomensis*
Proposed Deletion from California Rare Plant Rank 1B.2, G3G4T2 / S2**

Aaron E. Sims (CNPS) and Roxanne Bittman (CNDDDB)
February 13, 2015

Background

Arctostaphylos canescens subsp. *sonomensis* is a perennial evergreen shrub in the Ericaceae that was first included on List 3 of the *CNPS Inventory (Fourth Edition, Smith and Berg 1988)*, when recognized as a variety of *canescens* instead of a subspecies. It changed to a subspecies of *canescens* and was re-ranked to List 1B in the *Inventory, Fifth Edition (Skinner and Pavlik 1994)*, where it currently resides today. *Arctostaphylos canescens* subsp. *sonomensis* is being proposed for deletion from the *Inventory* at this time due to lack of support for its taxonomic recognition, and because of its commonness throughout the inner North Coast Ranges of California.

Arctostaphylos canescens subsp. *sonomensis* was originally described as *A. sonomensis* by Eastwood (1933), was reclassified as a variety of *A. canescens* by J. E. Adams (McMinn 1939), then treated as a subspecies of *A. canescens* by P. V. Wells (1988), as it currently stands today in *The Jepson Manual, Second Edition (TJM2)* (Parker et al. 2012) and *Flora of North America* (Parker et al. 2009) treatments. For simplicity, it is referred to as a subspecies of *A. canescens* for the remainder of this document. In 1984, Walter Knight declared *A. canescens* subsp. *sonomensis* as invalid. According to the original description, it differs from *A. canescens* subsp. *canescens* in the following characters: old stems almost black, young plants with close viscid puberulence, and leaves oblong to ovate-lanceolate, with pointed apex. In 1962, Steve Buckett took James B. Roof and Walter Knight to the type location on Rincon Ridge in Santa Rosa, California, to inspect the plants, and found that they all displayed black stems. However, when they transplanted two young plants to Regional Parks Botanic Garden, they discovered that when the plants grew to maturity they lost the black-stem character completely. After inspecting plants on Rincon Ridge again in 1984, Knight found that the black twigs are caused by a smut. Through specimen collection and herbarium specimen review, Knight was also unable to confirm the presence of a viscid puberulence on young growth, even on the type specimen, and found that pointed leaf apices occur on *A. canescens* subsp. *canescens* plants elsewhere (Knight 1984).

One year later, Knight (1985) revised his previous determination that subsp. *sonomensis* is not valid, and classified it as a variety of *A. canescens* with likely hybrid origin from *A. viscida* subsp. *pulchella* (North Coast and Klamath Ranges to southwestern Oregon), and *A. canescens* subsp. *canescens* (from Mt. Tamalpais and the southern Santa Cruz Mountains to southwestern Oregon). His later acceptance of its validity was based on the premise that the type specimen was collected in the southernmost point of its distribution, and that it exhibits obvious characters where it forms pure stands from Rincon Ridge northward, on Mt. Sanhedrin between the summit

and Impassible Rock, and is also easily discernable in mixed populations on Boardman Ridge, south of Hull Mountain summit in Lake County. However, in closing, Knight (1985) notes that “because the variety is at most locations sporadic and mixed with the species, it may be appropriate in the future to reduce it to a forma.” Lastly, the characters he used to differentiate the taxa are based solely on leaf shape and plant pubescence (Table 1). When looking at these characters alone, there is a fair degree of overlap between subsp. *canescens* and subsp. *sonomensis*, and we are reluctant to call these strong taxonomic distinctions in of themselves.

Character	Publication	<i>A. viscida pulchella</i>	<i>A. canescens canescens</i>	<i>A. canescens sonomensis</i>
Stems	Knight 1986	Pale glaucous-green, glabrous, or sometimes glandular-pubescent	Young stems densely white-downy	Close puberulence
	Parker et al. 2012	Twig glabrous to sparsely short-nonglandular-hairy	Twig short-canescens, nonglandular	Twig canescens, glandular or not
Leaves	Knight 1986	Round, ovate, or elliptic, rounded to acutish and mucronate at apex, glabrous, or sometimes glandular-pubescent	Oblong-ovate, ovate, acute to obtuse-ish at apex, canescens, sometimes glabrate in age	Oblong to lance-ovate, pointed apex or mucronate, lightly pubescent
	Parker et al. 2012	Ovate to +- round, glabrous, base rounded, truncate or +- lobed, tip abruptly soft-pointed, margin entire, flat.	Surfaces alike in color and hairiness, less often only or fewer abaxially, generally differing in color, hairiness*	Surfaces alike in color and hairiness, less often only or fewer abaxially, generally differing in color, hairiness*
Pedicels	Knight 1986	Viscid-hairy	White-downy, eglandular	Stipitate-glandular
	Parker et al. 2012	Glandular-hairy*	Hairy	Glandular-hairy in youth
Fruit	Knight 1986	Viscid	Puberulent, sometimes smooth or with a bloom	Viscid-pubescent
	Parker et al. 2012	Sticky-glandular, rough	Glabrous in age	Generally +- glabrous in age

TABLE 1. COMPARISON OF CHARACTERS OF *ARCTOSTAPHYLOS VISCIDA* SUBSP. *PULCHELLA*, *A. CANESCENS* SUBSP. *CANESCENS*, AND *A. CANESCENS* SUBSP. *SONOMENSIS*. Paralleling obvious characters from Knight (1985) with corresponding characters from *The Jepson Manual, Second Edition* (Parker et al. 2012). (* denotes description from species where no description for subspecies is present.)

Not only is the taxonomic validity of *A. canescens* subsp. *sonomensis* still in question today, but it is also apparently much too common to warrant any CNPS *Inventory*

status. In 2012, Shasta-Trinity National Forest Botanist, Julie Nelson, discovered a “ton” of *A. canescens* subsp. *sonomensis* in Trinity County. She was initially unaware that the geographic range of this taxon extended so far north, but after keying it out in *TJM2* (Parker et al. 2012) she realized the only difference between *A. canescens* subsp. *canescens* and subsp. *sonomensis* besides a slightly more restricted, yet overlapping distribution is “ovary nonglandular-hairy” (subsp. *canescens*) versus “ovary glandular-hairy” (subsp. *sonomensis*). All of the populations J. Nelson found had some degree of glandulosity on the fruits, bracts, and/or pedicels, and sometimes some of the plants in particular populations had no glands while others nearby did. Due to the commonness of the taxon and the subtle, non-consistent character separating subsp. *sonomensis* from subsp. *canescens*, she contacted Tom Parker at SF State University for verification. Parker replied “Mike [Vasey] and I are considering dropping ssp. *sonomensis* and redescribing *canescens*. We’ve gone through our specimens and found some glandular individuals in almost every population we’ve examined. So, it’s not surprising that you found it. It seems to increase in proportion to the north in lots of places we’ve visited” (J. Nelson pers. comm. with T. Parker 2012). Julie estimates that there is about 2,500 square miles of *A. canescens* subsp. *sonomensis* in Trinity County alone, where she found it throughout mixed conifer-broadleaf forest, on roadsides, in plantations, on skid trails, and in burned areas.

In addition to J. Nelson and T. Parker’s observations on the abundance of this taxon, the following past personal communications coincide with this conclusion: “It is my opinion that *A. canescens sonomensis*, if it is to be recognized, is widely distributed” (R. Gankin pers. comm. 1986), and “Really rare enough to be list 1? I doubt it. Contact Walter Knight, the authority” (S. Edwards pers. comm. 1992). In an earlier response from Walter Knight (pers. comm. 1986) on the rarity of *A. canescens* subsp. *sonomensis*, he wrote that it “is by no means rare or endangered”. This response was two years prior to publication of the *Inventory, Fourth Edition*, and it was apparently added to List 3 based on questions of its taxonomic distinctiveness, along with threats to the type population at Rincon Ridge, which was endangered by potential development. It was changed to List 1B in the *Inventory, Fifth Edition*, due to its later taxonomic validation by P. V. Wells (1988), and continued endangerment at Rincon Ridge.

Based on recent confirmation that two of the leading authorities on *Arctostaphylos* (T. Parker and M. Vasey) are considering dropping subsp. *sonomensis*, and due to its apparent commonness, particularly throughout the northern portions of its range, CNPS and CNDDB recommend deleting *A. canescens* subsp. *sonomensis* from 1B.2 of the CNPS *Inventory* (it will be placed on the Considered But Rejected list). Even if taxonomically recognized, it is too common for inclusion as a CRPR 1B plant, and based on multiple observations it is also apparently too common for CRPR 4 status at this time.

Recommended Actions

CNPS: Delete from CRPR 1B.2

CNDDDB: Delete from G3G4T2 / S2

Current CNPS Inventory Record

Arctostaphylos canescens Eastw. ssp. *sonomensis* (Eastw.) Wells

Sonoma canescent manzanita

Ericaceae

CRPR 1B.2

Colusa, Humboldt, Lake, Mendocino, Sonoma, Tehama, Trinity
Rutherford (500B) 38122D4, Sonoma (500C) 38122C4, Santa Rosa (501B) 38122D6,
Whispering Pines (533C) 38122G6, Wilbur Springs (547C) 39122A4, Bartlett Mtn.
(549A) 39122B7, Cow Mountain (550A) 39123B1, Purdys Gardens (550D) 39123A1,
Fouts Springs (564C) 39122C6, Elk Mountain (565C) 39122C8, Potato Hill (565D)
39122C7, Willits (567A) 39123D3, Plaskett Ridge (581B) 39122F8, Hull Mountain
(581C) 39122E8, Sanhedrin Mtn. (582D) 39123E1, Mendocino Pass (597C)
39122G8, Log Spring (597D) 39122G7, Noble Butte (600B) 39123H6, Leggett (600C)
39123G6, Sims Mountain (652A) 40123F5, Board Camp Mtn. (652B) 40123F6, Blake
Mountain (652D) 40123E5, Willow Creek (670B) 40123H6, Grouse Mtn. (670C)
40123G6, Hennessy Peak (670D) 40123G5

Chaparral, lower montane coniferous forest / sometimes serpentinite; elevation 180-
1675 meters

Perennial evergreen shrub. Blooms January-June

Threatened by development and logging. See *Leaflets of Western Botany* 1:78 (1933)
for original description, *Four Seasons* 7(3):42-46 (1985) for status update, and *Madroño*
35(4):330-341 (1988) for revised nomenclature.

Revised CNPS Inventory Record

Arctostaphylos canescens ssp. *sonomensis*

Considered But Rejected: Previously CRPR 1B.2; not taxonomically distinct from ssp.
canescens, and if recognized, too common.

Literature Cited

Eastwood, A. 1933. New species of Californian *Arctostaphylos*. *Leaflets of Western Botany* 1(8):78-79. (Original description.)

Knight, W. 1985. A reappraisal of *Arctostaphylos canescens* Eastwood var. *sonomensis* (Eastwood) Adams. *Four Seasons* 7(3):42-46.

_____. 1984. Manzanita miscellany. *Four Seasons* 7(2):30.

McMinn, H.E. 1939. *Arctostaphylos canescens* Eastw. var. *sonomensis* (Eastw.) Adams ex McMinn. Pp. 409 in *An illustrated manual of California shrubs*. Third printing 1959; University of California Press, Berkeley and Los Angeles. (Taxonomic revision I.)

Parker, T.V., M.C. Vasey, and J.E. Keeley. 2012. *Arctostaphylos*. Pp. 686-699 in Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.), *The Jepson manual: vascular plants of California*, 2nd ed. University of California Press, Berkeley, CA.

_____. 2009. *Arctostaphylos*. Online eFlora (www.eFloras.org), Flora of North America Editorial Committee (eds.), *Flora of North America North of Mexico*, Vol. 8: Magnoliophyta: Paeoniaceae to Ericaceae. Oxford University Press, New York, NY.

Skinner, M.W. and B.M. Pavlik (eds.). 1994. *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California*. Special Publication No. 1 (Fifth Edition). California Native Plant Society, Sacramento. 338 pp.

Smith, J.P., Jr., and K. Berg (eds.). 1988. *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California*. Special Publication No. 1 (Fourth Edition). California Native Plant Society, Sacramento. 168 pp.

Wells, P.V. 1988. New combinations in *Arctostaphylos* (Ericaceae): annotated list of changes in status. *Madroño* 35(4):330-341. (Taxonomic revision II.)