Element Code: ?

Added to California Rare Plant Rank 1B.3 on November 30, 2011

Rare Plant Status Review: *Rosa gymnocarpa* var. *serpentina* Proposed New Add to Rank 1B.3, G5T2T3 / S2

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Changes made to the original document appear in blue text.

Background

Rosa gymnocarpa var. serpentina is a perennial rhizomatous shrub in the Rosaceae family that is endemic to serpentine sites in northwestern California and southwestern Oregon. It is included in *The Jepson Manual, Second Edition* (available online at

http://ucjeps.berkeley.edu/tjm2/review/treatments/rosaceae_all.html#65298), but not in The Jepson Manual (1993); the Flora of North America treatment for Rosaceae is not yet available. This variety can be quite distinctive from the typical variety, var. gymnocarpa, but populations of Rosa gymnocarpa growing off of serpentine in the same general area as R. gymnocarpa var. serpentina tend to be intermediate between the two varieties (Ertter and Lewis 2008). Rosa gymnocarpa var. serpentina may have resulted from a hybridization event between Rosa gymnocarpa and a sympatric species, Rosa spithamea, but it is now a stabilized taxon confined to ultramafics (Ertter and Lewis 2008). Rosa gymnocarpa var. serpentina is distinguished from the typical variety by having fewer leaflets and a shorter, rounder terminal leaflet, shorter pedicels, overall shorter plant stature, and more leathery leaves. They differ ecologically as well, with the typical variety usually growing in shade or at the edge of forests and var. serpentina growing in full sun (Ertter and Lewis 2008, TJM 2). Rosa spithamea can be distinguished from R. gymnocarpa by its persistent sepals and relatively large hypanthium (TJM 2). Ertter and Lewis (2008) note that the identity of individuals in some regions is uncertain: the specimens from Preston Peak in Siskiyou County are tentatively included in var. serpentina, while a 1938 collection from Mount Shasta (Cooke 11094, UC618738) could possibly be R. gymnocarpa x spithamea or R. gymnocarpa var. serpentina (Consortium of California Herbaria 2011). However, this record is well outside of the known range and specific habitat requirements of R. gymnocarpa var. serpentina and is therefore a potential hybrid that should not be recognized (D. Taylor pers. comm. 2011). Rosa gymnocarpa var. serpentina flowers from April to June.

Rosa gymnocarpa var. serpentina only grows in full sun on serpentine substrates in the Siskiyou Mountains of California and Oregon. It can be found on both chaparral and stunted forests (Ertter and Lewis 2008). It grows from 400-1500 meters, but if other populations are included in the variety, its range could extend to 2300 meters.

There are currently nine eight known occurrences of *R. gymnocarpa* var. serpentina in the Siskiyou Mountains of northwestern California (if one includes the potential records from Mount Shasta and Preston Peak discussed above). All of the occurrences are on USFS lands, including both the Six Rivers and Klamath National Forests. Three of these occurrences are historic (occurrences not seen in the past 20 years are considered historic by the CNDDB). The full biogeographic distribution of *R. gymnocarpa* var. serpentina is not yet fully understood, however, and therefore field surveys should be conducted in other areas with the appropriate soils, vegetation types, and climate preferences of this taxon (Ertter and Lewis 2008).

Threats to Rosa californica var. serpentina are unknown. Given its occurrence on protected lands and the known resistance of serpentine ecosystems to exotic invasions, threats to the eight California occurrences should be considered minimal at this time.

Recommended Actions

CNPS: Add to CNPS 1B.3 CNDDB: Add to G5T2T3 / S2

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

Draft CNPS Inventory Record

Rosa gymnocarpa Nutt. var. serpentina Ertter & W.H. Lewis

Gasquet rose

Rosaceae

Rank 1B.3

Oregon

Del Norte, Humboldt, Siskiyou?

City of Mount Shasta (699D)? 4112233, Gasquet (739C) 4112378, Grouse Mtn. (670C) 4012376, Hurdygurdy Butte (739D) 4112377, Preston Peak (738D)? 4112375

Chaparral, cismontane woodland / Serpentinite. Often roadsides, sometimes ridges, streambanks, and openings; 400 – 1500 meters.

Perennial rhizomatous shrub. Blooms April – June.

Known only from the Siskiyou Mtns. of CA and OR. Identification of specimens from SIS Co. needs verification; field surveys needed. Similar to *R. spithamea*. Not in *The Jepson Manual* (1993). See *Madroño* 55(2):170-177 (2008) for original description.