

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Plant Abstract**

**Element Code:** PDR0S1R022

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Vauquelinia californica* ssp. *pauciflora*  
**COMMON NAME:** Limestone Arizona Rosewood; Guadalupe Canyon Rosewood  
**SYNONYMS:** *Vauquelinia pauciflora*  
**FAMILY:** Rosaceae

**AUTHOR, PLACE OF PUBLICATION:** Wells, P.V. and R.R. Johnson. 1964. Southwest Naturalist 9:151-154.

**TYPE LOCALITY:** Guadalupe Canyon, Mexico/Cochise County, Arizona.

**TYPE SPECIMEN:** US 234626. E.A. Mearns (2535). 3 October 1893.

**TAXONOMIC UNIQUENESS:** "The genus *Vauquelinia* is comprised of eleven taxa of evergreen, sclerophyllous, shrubs to small trees native to the arid, and semi-arid lands of Mexico and adjacent United States. The genus is here treated as composed of three species, one species having four subspecies, another with six subspecies, and the third without infraspecific divisions" (Hess and Henrickson). Three species of *Vauquelinia* occur in the United States; *V. pauciflora* has been reduced to a subspecies of *V. californica*.

**DESCRIPTION:** Evergreen arborescent shrub or small tree 2.0-4.0 m (6.6-13.2 ft.) tall with grayish bark. Petioles 3.0-6.0 mm (0.12-0.24 in.) long. Leaves **small and somewhat thickened** oblong or somewhat lance-shaped (with parallel sides), shiny green on both sides, usually 3.0-7.5 cm (1.3-3.0 in.) long, 8.0-14.0 mm (0.32-0.56 in.) wide, narrowed at the tip, with fine teeth on margins (young leaves very serrate at margins, less serrated with age). Flowers 6-10 per cluster, petals elliptic, about 3.0 mm (0.12 in.), white in color. Fruit consists of 5 partially-united follicles, these densely covered with short hairs. Due to dark foliage and size this plant can be seen from distance.

**AIDS TO IDENTIFICATION:** The small and somewhat thickened leaves, small inflorescence, and separate geographic ranges distinguish this subspecies from subspecies *californica*. Species differ in amount of hair on leaves - hairless in subspecies, much more hair in full species.

**ILLUSTRATIONS:** Line drawings of leaves, stems and inflorescence (Hess and Henrickson 1987:137).  
Line drawing (USFWS)

**TOTAL RANGE:** Hidalgo County, New Mexico; Cochise County, Arizona, and NE Sonora, Chihuahua, Coahuila, Durango, Mexico

**RANGE WITHIN ARIZONA:** Extreme southeastern Cochise County, east of Douglas.

**SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Woody Perennial, large shrub or small tree.

**PHENOLOGY:** Flowers in April and has set fruit by mid-July.

**BIOLOGY:**

**HABITAT:** Dry limestone ridges and hills and rhyolite.

**ELEVATION:** 4,100 - 6,000 ft (1251 - 1830 m).

**EXPOSURE:** Various - almost level to 45° slope

**SUBSTRATE:** Limestone bedrock, rhyolite (igneous). Discrepancy in substrate type: Spellenberg has found plant on rhyolite near Guadalupe Canyon (mentioned in USFWS memo to Arizona plant Recovery Team members from Rutman. Wells and Johnson state plant is found on limestone only (obligate calciphile).

**PLANT COMMUNITY:** Chihuahuan desert scrub. Associated with ocotillo, white thorn, agaves, grasses.

**POPULATION TRENDS:** Unknown, but young plants seem underrepresented (Rutman, pers comm 1988 through 1991). Bingham (1979) noted the same trend and also noted range condition was "good." Work by Baker (1994b) indicates a large proportion of small size-class plants, which suggests relatively good reproduction.

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None (USDI, FWS 1996)  
[Category 2 USDI, FWS 1985]

**STATE STATUS:** Salvage Restricted (ARS 1993)

**OTHER STATUS:** Not Forest Service Sensitive (USDA, FS Region 3 1999)  
[Forest Service Sensitive USDA, FS Region 3 1990]

**MANAGEMENT FACTORS:** In 1993, three monitoring plots. Fairly high density. Within Arizona, distribution fairly dense. Internode length measured to get knowledge of browsing extent. End up with short axes. Cattle and/or deer appear to be eating the plants to such an extent that the plants are malformed. However, Baker (1994b) concluded that grazing impacts do not appear to be detrimental to long term stability of the population. Seem to be reproducing normally with good overall health. Needs long term monitoring. Plant should be resurveyed in four to five years.

Rutman noted the plants were severely hedged, 1988-1991. Fletcher noted same in 1979. At present, plant appears dense and healthy, little management needed other than maintaining habitat. Occurs with *Coryphantha robbinsorum*. Should not be problem with experimentation relative to fire. By focusing on healthiness of palatable grasses, will also manage for *V. c. ssp. pauciflora*.

**PROTECTIVE MEASURES:** Improved range management.

**SUGGESTED PROJECTS:** Research to determine if the species is reproducing sufficiently to maintain itself.

**LAND MANAGEMENT/OWNERSHIP:** BLM - Safford Field Office; State Land Department. Possibly on US Forest Service and privately owned land.

## **SOURCES OF FURTHER INFORMATION**

### **LITERATURE CITATIONS:**

Arizona Revised Statutes, Chapter 7. 1993. Arizona Native Plant Law. Appendix A:11.

Baker, M. 1994a. Reproductive status of Arizona rosewood (*Vauquelinia californica* var. *pauciflora*). Report to Arizona Department of Agriculture. 64 p.

Baker, M. 1994b. Bureau of Land Management, Safford District, Rare Plant Workshop. November 14-16. Tucson, Arizona.

- Bingham, S. 1979. *Vauquelinia pauciflora* Standl. Report for the Safford District, Bureau of Land Management.
- Fletcher, R. 1979. *Vauquelinia pauciflora*. Report for the U.S. Forest Service. Albuquerque, New Mexico.
- Hess, W.J. and J. Henrickson. 1987. A taxonomic revision of *Vauquelinia* (Rosaceae). *Sida* 12(1):101-163.
- Phillips, B.G., N. Brian, J. Mazzoni, and L.T. Green III. 1982. Status report for *Vauquelinia pauciflora*. Prepared for U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Spellenberg, R. 1979. A report on the survey for threatened and endangered plant species in Guadalupe Canyon and vicinity, Hidalgo Co., New Mexico. Prepared for the Heritage Program, N.M. Dept. Natural Resources, Santa Fe, New Mexico.
- Standley, P.C. 1918. Six new species of trees and shrubs from Mexico. In *Proceedings of the Biological Society of Washington* 31:132-133.
- USDA, Forest Service Region 3. 1990. Regional Forester's Sensitive Species List.
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- USDI, Fish and Wildlife Service. 1985. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species. Notice of Review. *Federal Register* 50(188):00056.
- USDI, Fish and Wildlife Service. 1990. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. *Federal Register* 55(35):6229.
- USDI, Fish and Wildlife Service. 1993. Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. *Federal Register* 58(188):51189.
- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants: Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species; Notice of Review; Proposed Rule. *Federal Register* 61(40):7604.
- Wells, P.V. and R.R. Johnson. 1964. *Vauquelinia pauciflora* (Rosaceae.) from Guadalupe Canyon, Arizona: A species of trees newly reported for the United States. *The Southwestern Naturalist* 9(3):151-154.

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**ADDITIONAL INFORMATION:**

**Revised:** 1980-xx-xx (ANHP)  
 1991-11-11 (SR)  
 1994-10-17 (PLW)  
 1994-12-12 (DBI)  
 1998-01-12 (SSS)

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