

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDROS1R024

Data Sensitivity: No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Vauquelinia californica* ssp. *sonorensis* Hess & Henrickson  
**COMMON NAME:** Sonoran Mountain rosewood, Arizona Sonoran rosewood, Arizona rosewood,  
Sonora rosewood  
**SYNONYMS:** *Vauquelinia californica* (Torr.) Sarg.  
**FAMILY:** Rosaceae

**AUTHOR, PLACE OF PUBLICATION:** W.J. Hess and Henrickson, Sida 12(1): 130-132, f. 9,  
11a-c. 1987.

**TYPE LOCALITY:** Arizona, U.S.A.

**TYPE SPECIMEN:** Type protologue - HT: MOR. W.J. Hess and G. Wilhelm, 4258. IT: MO-  
3383000. Hess & Wilhelm 4259, 2 Jun 1978. Additional Isotypes include GH and NY.

**TAXONOMIC UNIQUENESS:** *Vauquelinia* is a small genus of 3 to 4 species native to Arizona  
and Mexico. Hess and Henderson (1987) split the species *californica* into four subspecies, based  
primarily on leaf characters (Falk et al., 2001). Three of the subspecies occur in Arizona, and not  
only include ssp. *sonorensis*, but include *V.c.* ssp. *californica* (Torrey's *Vauquelinia*), and *V.c.* and  
*pauciflora* (Arizona Limestone Rosewood).

**DESCRIPTION:** Medium-sized tree up to 5 m tall (Turner et al. (1995) reports as large shrub or  
small tree 3-8 m high with a dense, dark green canopy). Leathery leaves are green above, white-  
hairy below. Leaves are alternate, narrow (7-10 mm) and long (up to 10 cm), and leathery. Leaf  
margins are serrate with pronounced marginal spines. Flowers are white and small, 8-9 mm in  
diameter, and are clustered in flat-topped corymbs 5-8 cm broad. The woody, 5-parted capsules  
are 6 mm long, and the bark is reddish brown and scaly. (Falk and Jenkins et al. 2001; Turner et  
al. 1995).

**AIDS TO IDENTIFICATION:** No other tree in the Ajo Mountains has long, narrow leaves  
with white undersides. The ssp. *californica* has broader leaves and less pronounced marginal teeth  
than ssp. *sonorensis* and the ranges of the two subspecies do not overlap. (Falk and Jenkins et al.  
2001, and Turner et al. 1995).

**ILLUSTRATIONS:**

Line drawing (in Falk and Jenkins et al., 2001).

Color photo (in Falk and Jenkins et al., 2001).

Line drawing and Color photo of species (Lamb 1975: 134).

Line drawing of species (Elias 1980: 556).

Color photo of Isotype (MO-3383000, in [http://mobot.mobot.org/cgi-bin/search\\_vast](http://mobot.mobot.org/cgi-bin/search_vast))

Color photo of Isotype (NY-429894, in NYBG Virtual Herbarium)

**TOTAL RANGE:** Known from the Ajo and Sand Tank mountains of southwestern Arizona. Also found in Sierra Cobabi, northern Sonora, Mexico.

**RANGE WITHIN ARIZONA:** Southwestern Arizona in the Ajo, Diablo, Mesquite, and Santa Rosa mountains of Pima County, and Sand Tank Mountains of Maricopa County.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Perennial medium-sized tree.

**PHENOLOGY:** Leaves evergreen; flowers May to July; fruit ripens in the fall.

**BIOLOGY:** This plant is occasionally cultivated as an ornamental. Young plants require moderate irrigation until established and need little care thereafter (Turner et al. 1995). The species is unimportant to wildlife.

**HABITAT:** Desertscrub and desert grassland, in woodland or forest at base of cliffs, along canyon bottoms and on moderate to steep slopes. “*Vauquelinia californica* grows on rocky slopes of hillsides and canyons on a variety of substrates.... (Williams and Bonham 1972)” (Turner et al. 1995).

**ELEVATION:** 2,328 – 3,720 ft. (710–1135 m).

**EXPOSURE:** Collected on northeast- to northwest-facing slopes.

**SUBSTRATE:** According to Williams and Bonham (1972 in Turner et al. 1995), “*Vauquelinia californica* grows.... on a variety of substrates including rhyolite, andesite, granite, granitic gneiss, limestone, dolomite, sandstone, and tuff.”

**PLANT COMMUNITY:** Sonoran Desert with interior chaparral species at higher elevations. Often found with *Juniperus coahuilensis* and *Quercus ajoensis*. Associated species include: *Acacia greggii* (cat-claw acacia), *Ambrosia ambrosioides* (Ambrosia-leaf bursage), *Anisacanthus thurberi* (Thurber’s Anisacanthus), *Artemisia* (sagebrush), *Baccharis* (false-willow), *Calliandra eriophylla* (fairy duster), *Carnegiea gigantea* (Saguaro cactus), *Condalia globosa* (bitter snakewood), *Dodonaea viscosa* (varnish-leaf), *Ephedra trifurca* (long-leaf Mormon-tea), *Gymnosperma glutinosum* (Tatalencho), *Juniperus coahuilensis* (red-berry juniper), *Opuntia*

*acanthocarpa* (stag-horn cholla), *Parkinsonia microphylla* (little-leaf paloverde), *Prosopis* (mesquite), *Quercus ajoensis* (Ajo Mountain scrub oak), *Q. turbinella* (shrub live oak), *Rhamnus* (buckthorn), *Sacrostemma* (= *Funastrum*) *cynanchoides* (southern twinevine), *Sapindus saponaria* (wing-leaved soapberry), and *Solanum douglasii* (Douglas horse-nettle). (SEINet accessed 2005). According to NYBG Isotype, found with *Condalia*, *Dodonaea*, *Encelia* (brittlebush), *Fouquieria splendens* (Ocotillo), and *Simmondsia chinensis* (Jojoba).

In the Sonoran Mountaintop Woodland of the Sand Tank Mountains, “unusual species include redberry juniper (*J. coahuilensis*), Arizona Sonoran rosewood (*V.c. sonorensis*), Spanish dagger yucca (*Yucca arizonica*) and Kofa barberry (*Berberis harrisoniana*).” (Laurenzi and Marshall, 2000). “The only other similar combination of plants occurs at the upper elevations of the Ajo Mountains to the south.” (Laurenzi and Marshall, 2000).

**POPULATION HISTORY AND TRENDS:** Unknown. Based on 1990 collection from the Organ Pipe Cactus National Monument, it was observed to be “locally common on upper canyon slopes and in canyon bottom.”

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE STATUS:** None  
**OTHER STATUS:** Bureau of Land Management Sensitive (USDI, BLM AZ 2000, 2005, 2008, 2010)

**MANAGEMENT FACTORS:**

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** BIA – Tohono O’Odham Nation; BLM – Tucson Field Office; DOD – Barry M. Goldwater Air Force Range; NPS – Organ Pipe Cactus National Monument.

## **SOURCES OF FURTHER INFORMATION**

### **REFERENCES:**

- Elias, T.S. 1980. The complete Trees of North America: Field guide and natural history. Van Nostrand Reinhold Company. New York. Pp. 555-556.  
 Epple, A.O. 1995. A field guide to the Plants of Arizona. Falcon, Helena, Montana. Pp 102-103.

- Falk, M. & P. Jenkins et al., 2001. Arizona Rare Plant Field Guide. Published by a collaboration of agencies and organizations. Pages unnumbered.
- Harvard University Herbaria. 2001. Index of Botanical Specimens.  
<http://brimsa.huh.harvard.edu/cms-wb/specimens.jsp>. Accessed: 8/24/2005.
- Integrated Taxonomic Information System (ITIS). Retrieved 8/24/2005 from ITIS,  
<http://www.itis.usda.gov>.
- Kearney, T.H., R.H. Peebles with collaborators. 1951. Arizona flora. Second edition with supplement by J.T. Howell, E. McClintock and collaborators. 1960. University of California Press. Berkeley, California. P. 374-375.
- Lamb, S.H. 1975. Woody Plants of the Southwest. The Sunstone Press. Santa Fe, New Mexico. P. 134.
- Laurenzi, A., and R. Marshall. 2000. Proposed Sonoran Desert National Monument Fact Sheet: Plants and Plant Communities. The Nature Conservancy. Tucson, Arizona.
- Missouri Botanical Garden – TROPICOS, Nomenclatural Data Base. *Vauquelinia californica* subsp. *sonorensis* W.J. Hess & Henr. [http://mobot.mobot.org/cgi-bin/search\\_vast](http://mobot.mobot.org/cgi-bin/search_vast). Accessed: 24 Aug 2005.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: February 20, 2002).
- NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.5. NatureServe, Arlington, Virginia. Available: <http://www.natureserve.org/explorer>. (Accessed: August 24, 2005).
- SEINet. Collections Search Result. Accessed 8/24/2005 at <http://seinet.asu.edu/collections/list.jsp>.
- The New York Botanical Garden. NYBG Specimens Search Results. <http://207.156.243.8/emu/vh/specimen.php?irn=767624>. (Accessed: 8/24/2005).
- Turner, R.M., J.E. Bowers, and T.L. Burgess. 1995. Sonoran Desert Plants, an ecological atlas. The University of Arizona Press. Tucson, Arizona. Pp. 395-396.
- USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- USDI, Bureau of Land Management. 2000. Arizona BLM Sensitive Species List. Instruction Memorandum No. AZ-2000-018.
- USDI, Bureau of Land Management. 2005. Arizona BLM Sensitive Species List.
- USDI, Bureau of Land Management Region 2. 2008. Arizona BLM Sensitive Species List.
- USDI, Bureau of Land Management Region 2. 2010. Arizona BLM Sensitive Species List.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:****ADDITIONAL INFORMATION:**

The wood of *V. californica* "... is cross-grained, very hard, heavy, and difficult to carve but worth the effort for making small articles" (Lamb 1975).

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