

**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)

Color photo of Isotype (NY-429894, in

<http://207.156.243.8/emu/vh/specimen.php?irn=767624>)

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 2000)

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

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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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