

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDBER02030

Data Sensitivity: No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Berberis harrisoniana*

**COMMON NAME:** Kofa barberry, Kofa Mountain barberry, Harrison's barberry, red barberry

**SYNONYMS:**

**FAMILY:** Berberidaceae

**AUTHOR, PLACE OF PUBLICATION:** Kearney and Peebles, J. Wash. Acad. Sci. 29(11): 477-478. 1939.

**TYPE LOCALITY:** Canyon of Kofa Mountains, Yuma County, Arizona, U.S.A.

**TYPE SPECIMEN:** Holotype: US-1468221. R.H. Peebles 6768 and H.F. Loomis, 31 Mar 1930.

**TAXONOMIC UNIQUENESS:** The species *harrisoniana* is 1 of 10 in the genus *Berberis*.

**DESCRIPTION:** Rounded, evergreen shrub 0.5-1.5(2) m (1.6-5(6.6) ft) tall. The stems are often dimorphic, with elongate primary and somewhat elongate axillary shoots. Barks of 2 year old stems are brown or gray, and glabrous. Spines are absent. Leaves are trifoliate, 4-9 cm (1.6-3.5 in) long, with 3 leaflets that taper to a short, stout spine. Leaflets ovate, oblong, or elliptic, and thick and relatively rigid; terminal leaflet sessile, blade 2.9-5.4 x 2.2-3.2 cm, 1.3-2.4 times as long as wide; lateral leaflets 2-3.4 x 0.3-0.4 mm, apex acuminate. Petioles are 1.5-5 cm, continuous below the leaflets. Inflorescences 2-4 cm long, corymbiform to racemose, rather dense, 6-11 flowered. Flowers are bright yellow with 9 sepals; outer sepals 1.5-2.0 mm long; middle sepals 2.0-2.5 mm long; petals and inner sepals 6 mm long; filaments bear 2 lateral spur-like teeth at apex. Berries are blue-black, glaucous, and spheric to short-ovoid, 5-6 mm, juicy, solid.

**AIDS TO IDENTIFICATION:** *Berberis harrisoniana* is a relict species related to *B. trifoliata* from southeastern Arizona. *B. trifoliata* has lanceolate leaflets, 1-2 cm wide, red berries, and filaments not toothed; *B. haemetocarpa* has 5-7 leaflets with the terminal leaflet long acuminate, 3-11 cm long, and red berries; *B. fremontii* has 5-7 leaflets, the terminal one not long acuminate, and berries purple. (Falk et al. 2001).

**ILLUSTRATIONS:**

Color photo of Holotype (USNM, in

[http://ravenel.si.edu/botany/types//fullRecords.cfm?myFamily=\)](http://ravenel.si.edu/botany/types//fullRecords.cfm?myFamily=)

Line drawing (Falk et al. 2001)  
Color photos of plant and habitat (Falk et al. 2001)  
Line drawing (Benson and Darrow, 1981: fig. 3.61)

**TOTAL RANGE:** Southwestern Arizona and recently reported from Whipple Mountains in San Bernardino County, California.

**RANGE WITHIN ARIZONA:** Range includes the Kofa Mountains in Yuma and La Paz counties, the Sand Tank Mountains in Maricopa County, and the north end of the Ajo Mountains in Pima County. Reported from the Eagletail Mountains in La Paz and Maricopa counties.

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

**GROWTH FORM:** Perennial, evergreen shrub.

**PHENOLOGY:** Flowering January to March, fruiting late March to April.

**BIOLOGY:** Unknown

**HABITAT:** Inhabits the bottoms of deep, shady, rocky canyons.

**ELEVATION:** 2,200 – 3,500 ft (760-1070 m). NatureServe (2001) reports elevations from 2,460-3,935 ft (750-1200 m).

**EXPOSURE:** At higher elevations, it occurs on north-facing talus slopes (NatureServe 2001).

**SUBSTRATE:** Soils derived from andesite or rhyolite.

**PLANT COMMUNITY:** Sonora Desert with interior chaparral at higher elevations. Associated species include: *Celtis pallida* (shiny hackberry), *C. reticulata* (= *C. laevigata* var. *reticulata*, netleaf hackberry), *Dodonaea viscosa* (varnish-leaf), *Forestiera phillyreoides* (= *F. shrevei*, desert olive), *Gymnosperma glutinosum* (gumhead), *Hibiscus coulteri* (desert rosemallow), *Lycium andersonii* (red-berried desert-thorn), *Menodora scoparia* (= *M. scabra*, rough menodora), *Mohavea* sp., *Muhlenbergia emersleyi* (bullgrass), *Prosopis* sp. (mesquite), *Quercus turbinella* (shrub live oak), *Simmondsia chinensis* (jojoba), *Tetracoccus hallii* (Hall's shrubby-spurge), *Tragia stylaris* (= *T. ramosa*, branched noseburn), *Viguiera deltoidea* (triangle goldeneye), *Washingtonia filifera* (California fan palm), *Zizyphus* sp. Based on a collection by J. Anderson 2001-1 (ASU s.n. 2001) in California, *Berberis harrisoniana* was found with *Acacia greggii* (catclaw acacia), *Brickellia atractyloides* (spear-leaf brickell-bush), *Ephedra* sp. (Mormon-tea),

*Eriogonum fasciculatum* (California wild buckwheat), *E. wrightii* (Wright's wild buckwheat), *Galium* sp. (bedstraw), and *Quercus turbinella*.

**POPULATION HISTORY AND TRENDS:** NatureServe (2004) reports this species from only 8 sites in southwestern Arizona. Although it is restricted to a limited habitat, the species occurs in remote, infrequently visited areas and there are no immediate threats to its survival.

### **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:** Although it is restricted to a limited habitat, the species occurs in remote, infrequently visited areas and there are no immediate threats to its survival.

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** BIA – Tohono O’Odham Nation; BLM – Phoenix and Yuma Field Offices; DOD – USAF Barry M. Goldwater Air Force Range; NPS – Organ Pipe Cactus National Monument; USFWS – Kofa National Wildlife Refuge. Also California BLM lands, Whipple Mountains Wilderness.

### **SOURCES OF FURTHER INFORMATION**

#### **REFERENCES:**

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

**Revised:** 2002-05-09 (SMS)  
2004-09-20 (SMS)

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