

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

Plant Abstract

Element Code: PDCRO01010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Apacheria chiricahuensis* Mason

COMMON NAME: Chiricahua rock flower, Cliff brittlebush, Apache bush

SYNONYMS:

FAMILY: Crossosomataceae

AUTHOR, PLACE OF PUBLICATION: C.T. Mason, Madroño 23(3): 105-108, f. 1-2. 1975.

TYPE LOCALITY: Upper Picket Canyon, West Picket Park research natural area, Chiricahua National Monument, Chiricahua Mountains, Cochise County, Arizona, alt. ca. 5800 feet.

TYPE SPECIMEN: HT: ARIZ-195270. William Moir s.n., Mid-May 1973. IT: US.

TAXONOMIC UNIQUENESS: Monotypic genus; three genera in family (*Apacheria*, *Crossosoma*, *Forsellesia*).

DESCRIPTION: Small, trailing shrub about 50 cm (20 in) tall, up to 1.0 m (40 in), with spine-like twigs. Leaves are opposite, entire to 3-lobed at the tip, oblanceolate to spatulate in shape, arranged in clusters along the stems, 3.5-7.5 mm long, 1.0-2.3 mm wide, apiculate, and glabrous. Flowers are radically symmetric, borne singly, and sessile or short pedunculate. White to cream colored (to pink) flowers with four petals are 5.0-6.0 mm long, borne singly at the tips of short shoots; sepals 4, 3.0-3.5 mm long. Stamens 8; carpels 1-4; and stigmas linear. The fruit is a prominently striate-veined follicle. Seeds 1-2, brown, kidney-shaped, averaging 1.5 mm long and 1.0 mm wide, with a white aril.

AIDS TO IDENTIFICATION: *Apacheria chiricahuensis* is most closely related to the genus *Crossosoma*, which differs from *Apacheria* in having alternate leaves, 20 stamens, and 5-merous flowers. *Apacheria* shows affinities to other shrubby southwest genera such as *Jamesia*, *Philadelphus* (mock-orange), and *Fendlera* (fendler-bush). The major difference between them is that *Apacheria* has follicle fruits instead of capsules. (Fletcher 1979). Furthermore (according to Mason 1975) this "species is glabrous except for the hispidulous ovaries, whereas species of the other genera are most commonly pubescent and often copiously so."

ILLUSTRATIONS: Line drawing of plant and parts (Mason 1975: Fig.1).

Photomicrograph from scanning electron microscope of pollen (Mason

1975: Fig.2).

Color photo (R. Worthington, in Carter 1998

<http://nmrareplants.unm.edu/reports/apachi.htm>).

Line drawing (NMNPPAC 1984, in

<http://nmrareplants.unm.edu/drawings/apachi.htm>)

Color photos (R. Worthington, in

<http://nmrareplants.unm.edu/photoimages/collage/apachi.htm>).

Color photo of Isotype Specimen (USNM, in

<http://ravenel.si.edu/botany/types/fullRecords.cfm?myFamily=>).

TOTAL RANGE: Known from the Chiricahua and Dragoon mountains in Cochise County, Arizona, and from the San Mateo Mountains and Black Range in New Mexico (Hidalgo, Sierra, and Socorro counties). May range south into Mexico.

RANGE WITHIN ARIZONA: Known from the Chiricahua and Dragoon mountains in Cochise County, Arizona.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial shrub/subshrub.

PHENOLOGY: Flowers April to August (May-June), set seeds through October.

BIOLOGY:

HABITAT: Widely scattered populations on cliff face, and in crevices of rock outcrops and ledges, in canyons.

ELEVATION: 5,160 - 7,000 ft. (1574-2135 m).

EXPOSURE: Northwest, north to south facing exposures. Carter (1998) reports mostly north-facing cliffs.

SUBSTRATE: Limestone or Rhyolite.

PLANT COMMUNITY: Pinyon-oak-cypress riparian woodland; Chaparral; Madrean Evergreen Woodland of oak-juniper-pine. Associated species include: *Agave*, *Arbutus arizonica* (Arizona madrone), *Arctostaphylos* sp. (manzanita), *Cupressus arizonica* (Arizona cypress), *Dasyllirion wheeleri* (spoonflower), *Nolina* (bear-grass), *Quercus* sp. (oak), *Quercus emoryi* (Emory oak), *Pinus cembroides* (Mexican pinyon pine), *P. chihuahuana* (Chihuahua pine), and various grasses. (SEINet accessed 2005).

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)
[Category 3 (USDI, FWS 1985)]
[Category 1 (USDI, FWS 1983)]
[Category 1 (USDI, FWS 1980)]

STATE STATUS: Salvage Restricted (ARS, ANPL 1999)
[Salvage Restricted (ARS, ANPL 1993)]

OTHER STATUS:

MANAGEMENT FACTORS: The cliffside habitats of this rare shrub offer considerable protection from human impacts.

CONSERVATION MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: Primarily occurs on the NPS - Chiricahua National Monument; also USFS - Coronado National Forest and Private. Two populations on the Cibola National Forest in New Mexico.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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ADDITIONAL INFORMATION:

“*Apacheria chiricahuensis* is an ecologically specialized species known from two mountain ranges in Arizona and New Mexico. Recently described member of a very small family, little is known about its biology or distribution. However, it grows in fairly inaccessible habitats, is protected in a significant portion of its range, and no threats to its existence are known.” (Phillips et al. 1982).

“This endemic small shrub is named to honor the Chiricahua Apache Indians who once inhabited the area” (Mason 1975).

Revised: 1992-12-09 (DBI)
1992-12-10 (DBI)
1998-01-05 (SSS)
2003-08-07 (SMS)
2005-09-09 (SMS)

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Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.