

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

Plant Abstract

Element Code: PDAST70080

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Perityle cochisensis* (Niles) A. M. Powell

COMMON NAME: Chiricahua Rock Daisy

SYNONYMS: *Laphamia cochisensis* Niles

FAMILY: Compositae

AUTHOR, PLACE OF PUBLICATION: Niles, W. 1970. Mem NY Bot. Gard. 21:47-49.

TYPE LOCALITY: Arizona: Cochise County: Echo Canyon, Chiricahua National Monument.

TYPE SPECIMEN: ARIZ 166857. W. E. Niles 377. October 5, 1964.

TAXONOMIC UNIQUENESS: This species is one of approximately 75 species of *Perityle*. These are distributed in the southwestern United States and northern Mexico (Hickman 1993). Arizona contains 12 species of *Perityle* (Lehr 1978). *P. cochisensis* is closely related to *P. gilensis* and *P. ajoensis*. All three of these species have the same chromosome number (Arizona Plant Recovery Team 1991). There is also evidence that this species is related to *P. lemmoni* (Green et al. 1982, Powell 1973).

DESCRIPTION: **Non-technical:** Small herbaceous perennial, stems upright to spreading, 2 - 5 inches tall, becoming purplish with age. Leaves alternate, irregular to 3-lobed, minutely glandular. Involucres solitary and terminal on glandular peduncles. Ray flowers absent. Corollas of disc flowers yellow. Pappus, if present, a single barbed awn, occasionally a second awn present. Achenes narrowly elliptic, black (Green et al. 1982).

Technical: Herbaceous perennial, stems upright to spreading, 4 - 12 cm tall, almost glabrous to sparsely or densely short-pubescent; leaves alternate, 1.5 - 3.5 cm long, 0.8 - 2.7 cm wide, subglabrous to hispidulous, subdeltoid, ovate, to deltoid-orbiculate in outline, irregularly lobed or cleft or subcruciform with 3 - 5 segments, segments serrate or lobed; petioles 0.7 - 1.5 cm long; capitulescence essentially of solitary heads, on short peduncles ca. 0.5 cm long; involucres broadly campanulate, heads 0.8 - 1.0 cm long, ca. 1.0 cm wide; involucre of 2 - 3 equal series, bracts 5.0 - 6.5 mm long, 1.0 - 2.5 mm wide, lanceolate to lanceolate-ovate or ovate, acute-obtuse at the apex; ray flowers absent; disc flowers 30 - 45, corollas yellow, ca. 3.5 mm long, the throat funnellform to narrowly campanulate, ca. 2.0 mm long; achenes 2.5 - 3.0 mm long, linear to narrowly obconical, with thin callous margins, ciliate-pubescent on the margins, short-pubescent on the achene surfaces; pappus of one

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slender bristle, 2.0 - 2.5 mm long, or with the main bristle and a shorter one arising from the opposite margin, bristles subplumose distally, and pappus usually of an inconspicuous, partial, or complete crown of hyaline squamellae; chromosome number, n=17 (Niles 1970, Powell 1973, Green et al. 1982).

AIDS TO IDENTIFICATION: Within its narrow range, *P. cochisensis* is most likely to be confused with *P. lemmoni*. The flowers and seeds of these two species are very similar. The most reliable characters to distinguish these two species are vegetative. The leaves of *P. cochisensis* are almost glabrous to sparsely hairy, while the leaves of *P. lemmoni* are densely pilose. The leaves of *P. cochisensis* have larger, wider, and fewer lobes than those of *P. lemmoni* which are lacinate dissected. The petioles of *P. cochisensis* are much longer than those of *P. lemmoni* (Fletcher 1978, Powell 1973).

ILLUSTRATIONS:

Line drawing (USFWS).

Line drawing of plant, leaf, involucre, and disc floret (Niles 1970).

TOTAL RANGE: Southern Arizona.

RANGE WITHIN ARIZONA: Cochise County: Chiricahua Mountains (and Dos Cabezas Mountains?).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial.

PHENOLOGY: Spring-Fall.

BIOLOGY: Field studies conducted on several population of this species for Green et al.'s 1982 status report indicated a high percentage of flowering plants and a nearly even ratio of adults to seedlings. This indicates that *P. cochisensis* is a stable reproducing species, at least in those populations studied (Green et al 1982).

HABITAT: This species most often occurs in crevices and on ledges of rhyolitic cliff faces in canyons within madrean evergreen woodland communities, as defined by Brown (1994).

ELEVATION: Approximately 5,500 - 7,000 ft (1,677.5 - 2,135 m).

EXPOSURE: All, but most often north-facing.

SUBSTRATE: Thin soil of crevices and ledges of rhyolite (and possibly of granite) cliffs and boulders.

PLANT COMMUNITY: Pine-oak woodland within madrean evergreen woodland communities, as defined by Brown (1994). Associated species include *Quercus emoryi*, *Quercus rugosa*, *Quercus hypoleucoides*, *Pinus cembroides*, *Pinus chihuahuana*, *Arbutus arizonica*, *Arctostaphylos sp.*, *Cupressus arizonica*, and *Apacheria chiricahuensis* (Green et al. 1982, Bennett et al. 1996).

POPULATION TRENDS: Apparently stable.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:	None (USDI, FWS 1996) [3C, USDI, FWS 1993] [C2, USDI, FWS 1985, 1990] [3C, USDI, FWS 1983] [C1, USDI, FWS 1980]
STATE STATUS:	Salvage Restricted (ARS, ANPL 1993)
OTHER STATUS:	Forest Service Sensitive (USDA, FS Region 3 1999) [Forest Service Sensitive USDA, FS Region 3 1990]

MANAGEMENT FACTORS: This species usually grows in fairly inaccessible habitats and is naturally protected to some degree. Several populations of this species occur on National Park Service land.

CONSERVATION MEASURES TAKEN: Several populations of this species are found in Chiricahua National Monument. This species has been listed as “Forest Service Sensitive” since 1990.

SUGGESTED PROJECTS: Monitor known populations.

LAND MANAGEMENT/OWNERSHIP: USFS Coronado National Forest (Douglas Ranger District), NPS Chiricahua National Monument.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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ADDITIONAL INFORMATION:

Green, et al. 1982. Recommended dropping from consideration for federal listing due to the lack of threats.

Dropped to 3C due to lack of threats and possible range extension (AZ Plant Recovery Team 1991).

Revised: 1991-10-19 (ANHP)
1991-11-13 (SR)
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