ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract **Element Code:** PDFAB1L010
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Errazurizia rotundata* (Wooton) Barneby
COMMON NAME: Roundleaf Errazurizia, round dunebroom, roundleaf dunebroom, round-leaf dune-broom
SYNONYMS: *Parryella rotundata* Wooton, *Dalea nummularia*
FAMILY: Fabaceae

AUTHOR, PLACE OF PUBLICATION: *Errazurizia rotundata* (Wooton) Barneby, Leaflets of Western Botany 9(13-14): 210. 1962. *Parryella rotundata* Wooton, Bull. Torr. Bot. Club 25(8): 457. 1898.

TYPE LOCALITY: "… at a point about five miles north of Winslow, Navajo County, Ariz., June 29, 1892, in reddish soil." Wooton s.n. 4267 m.

TYPE SPECIMEN: HT: US-735142. E.O. Wooton s.n., 29 Jun 1892.

TAXONOMIC UNIQUENESS: *Errazurizia rotundata* is only known from north-central Arizona. It was originally described in 1898 as *Parryella rotundata* by E.O. Wooton based on a specimen that he collected from north of Winslow in 1892. It was transferred to the genus *Errazurizia* by R.C. Barneby of the New York Botanical Garden in 1962. (Van Devender 1980). Species *rotundata* is the only species in the genus *Errazurizia*.

DESCRIPTION: Low, clonal, aromatic woody shrub, up to 35 cm (13.8 in) tall, and 1 m (3.28 ft) or more in diameter. Herbage is strigulose-canescent, with many prominent orange or purple, prickle shaped glands. Leaves 3-13 cm (1.18-5 in) long, with 29-61 broadly oblong-ovate to orbicular leaflets. Spikes short, 6-14 flowered, the axis not over 2 cm long in fruits. Calyx tube prominently 10-ribbed and glandular in the intervals. Flowers 5 mm long with only a pale yellow banner (fading to reddish) and no keels or wings. The pod is an ovoid-ellipsoid that is slightly compressed and 9-11 mm long. (Van Devender 1980; Falk et al. 2001).

AIDS TO IDENTIFICATION: Before leafing out in the spring, this plant must be distinguished from similar looking *Parryella filifolia*, which may grow on nearby dunes (Phillips et al. 1981). "The Arizona species most closely resembles *E. benthami* in its twiggy fruticose habit of growth, short flower-spikes, and filiform glandless style; but the stigma is here minute and punctiform, the corolla is either reduced to the banner or more commonly altogether suppressed, and the stamens are greatly exserted, the filaments of the ripe anthers becoming almost twice the length of the calyx." (Barneby 1962).

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ILLUSTRATIONS: B&W of plant and parts (Barneby 1977)
B&W drawing (*in* Falk et al. 2001).
Color photos of plant and habitat (*in* Falk et al. 2001).
Color photo of type (Wooton, US-735142, *in* http://ravenel.si.edu/botany/types//fullRecords.cfm?myFamily=)

TOTAL RANGE: Arizona.

RANGE WITHIN ARIZONA: Thought to be endemic to the Little Colorado River (LCR) drainage, Coconino and Navajo counties, Arizona. Particularly Painted Desert, Echo Cliffs, Wupatki Basin, middle LCR drainage, and northwest of Winslow. Collected in Maricopa County by R.K. Gierisch in 1977 (ASC-31101).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial shrub/subshrub.

PHENOLOGY: Flowers from early April to mid-May, and sets fruit from May to June.

BIOLOGY:

HABITAT: A very aromatic shrub growing in large soil-binding clumps in sandy areas. "Occurs in exposed sites in several types of outcrops ranging from sandy soils in sandstone, gravelly soils in calcareous outcrops, to deep, alluvial cinders in sandstone breaks." (Falk et al. 2001). Van Devender (1980) reports "*Errazurizia rotundata* is found…on rocky hilltops and ledges on red or white sandstone and sandy areas nearby."

ELEVATION: 4,620 - 5,200 ft (1409-1585 m).

EXPOSURE: Northeast facing slopes.

SUBSTRATE: Found in sandy soils in sandstone, gravelly soils in calcareous outcrops, and deep alluvial cinders in sandstone breaks.

PLANT COMMUNITY: Great Basin desertscrub with widely spaced shrubs. Associated species include: *Artemisia* (sagebrush), *Atriplex canescens* (four-wing saltbush), *Chrysothamnus* (rabbit-bush), *Ephedra torreyana* (Torrey's Mormon-tea), *E. viridis* (Green Mormon-tea), *Fallugia paradoxa* (Apache-plume), *Gutierrezia* (snakeweed), *Hilaria* (=*Pleuraphis*) *jamesii* (James's Galleta), and *Sporobolus flexuosus* (mesa dropseed).

POPULATION HISTORY AND TRENDS: Unknown.

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SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: Salvage Restricted (ADA, ANPL 1999)
[Salvage Restricted (ADA, ANPL 1993)]
OTHER STATUS: Bureau of Land Management Sensitive (USDI, BLM 2000).
Group 4 (NNDFW, NESL 2005)
[Group 4 (NNDFW, NESL 2001)]

MANAGEMENT FACTORS: Most of the known localities for *E. rotundata* are in badly overgrazed areas (Van Devender 1980). This shrub is well adapted to reduce wind erosion and is sometimes planted for this purpose. It also provides shade and protection for annuals by creating a microhabitat within its branches. (Phillips et al. 1981).

Several reasons for endangerment of this species include: naturally rare; restricted habitat; heavy over-grazing; off-road vehicle disturbance.

PROTECTIVE MEASURES TAKEN: Only one population has some protection due to its location on the Wupatki National Monument.

SUGGESTED PROJECTS: Search additional areas for new populations.

LAND MANAGEMENT/OWNERSHIP: BIA – Navajo Nation; BLM – Safford Field Office; NPS – Wupatki National Monument; State Land Department; Private.

SOURCES OF FURTHER INFORMATION

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ADDITIONAL INFORMATION:

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