

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

Plant Abstract

Element Code: PDASTDL020

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Laennecia eriophylla* (Gray) Nesom
COMMON NAME: Woolly Fleabane; Cochise Marshtail
SYNONYMS: *Conyza eriophylla* (Gray) Cronquist, *Erigeron eriophyllus* Gray
FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: Gray, Asa. 1853. *Plantae wrightianae* 2:77-78.

TYPE LOCALITY: "on the Sonoita, Rancho Deserto, Sonora." (Probably Sonoita Creek, Santa Cruz County, Arizona)

TYPE SPECIMEN: GH 6818?. C. Wright s.n. September 1851.

TAXONOMIC UNIQUENESS: The genus *Laennecia* contains only 15 species, with 4 species of *Laennecia* found in Arizona. The genus is native to the southwestern United States, Mexico, Central America, and South America (Nesom 1990).

DESCRIPTION: Non-technical: Perennial herb, up to 11 inches tall, with small flowers in heads 1 cm long that have a "fuzz-ball" dandelion appearance as they dry. The ray flowers are purplish. Plants branch from the bottom and the basal leaves are larger than the upper stem leaves. Both the stems and leaves are covered with white woolly hairs. The margins of the leaves are revolute and dark brown (Phillips et al. 1980, Martin et al. 1998).

Technical: Short-lived perennial herb from a slender but woody taproot, stems branched from the base, 15 - 40 cm tall, densely pubescent with white woolly hairs. Leaves 2 to 4 cm long, densely woolly overall but often glabrate on the upper surface, eglandular, the basal and lower cauline leaves oblanceolate, not clasping, sometimes slightly revolute, shallowly serrate with 1 - 4 pairs of teeth on the distal, brown margins, becoming linear, entire, and gradually reduced in size upward. Heads 7 - 9 mm wide on peduncles mostly 1.5 - 4.5 cm long, in panicles or loose corymbs; phyllaries in 3 - 5 strongly graduated series, the innermost 5.5 - 7 mm long, the inner with a distal, narrowly elliptic, green, "Aster like", central area between and above white, indurated zones, with purple apices, the margins hyaline. Pistillate corollas filiform, 4.5 - 5 mm long, the ligules erect, 0.5 - 0.8 mm long, purplish. Disc corollas glabrous or with a few hairs, 4.3 - 5.0 mm long, the tube 2.8 - 3.5 mm long, throat gradually ampliate, lobes 0.3 - 0.6 mm long, often purplish. Achenes elliptic-oblong, 2.1 - 3.0 mm long, 0.9 - 1.0 mm wide, strongly flattened, with 2 thick, white, marginal ribs, the faces tan, faces and margins sparsely to moderately but prominently long strigose, eglandular; pappus a series

of 35 - 45 very slender, barbellate bristles 4.5 - 5.5 mm long, sometimes with a few, inconspicuous, outer setae (Nesom 1990, Gray 1853, Phillips et al.1980, Warren 1999).

AIDS TO IDENTIFICATION: This distinctive white woolly plant is more densely pubescent than other species of composites in the area. It is similar in appearance to *Gnaphalium arizonicum* which grows with it. The leaves of *Gnaphalium arizonicum* have less size difference between the upper and lower leaves and they lack the dark brown revolute leaf margins (Phillips et al.1980, Warren 1999). *L. eriophylla* can be distinguished from other species of *Laennecia* in Arizona by its phyllaries being in 3 - 5 strongly graduated series, the inner with a distal, narrowly elliptic, green and “*Aster* like” central area, between and above the white indurated zones. There are other, more obvious ways of distinguishing the other species of *Laennecia* from *L. eriophylla* as well. *L. schiedeana* is an unbranched erect annual. *L. coulteri* has distinctly clasping leaves. *L. sophiifolia* has leaves that are bipinnatifid or pinnatifid (Nesom 1990).

ILLUSTRATIONS: Line drawing (USFWS).

TOTAL RANGE: Southeastern Arizona and northern Mexico (Sonora and Chihuahua).

RANGE WITHIN ARIZONA: Santa Cruz County: Atascosa, Pajarito, and Santa Rita Mountains, Canelo Hills and vicinity of Sonoita Creek; Cochise County: Huachuca Mountains.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial.

PHENOLOGY: In Arizona: Flowering late August to October; sets seed in September and October. In Mexico, this species has been collected in flower from March to September.

BIOLOGY: Fletcher (1980) noted that this species was most often found growing in the protection of various grasses. The dense grass cover appears to create a specific microclimate that this species needs. Research on one population, performed by Jill Mazzone and L. T. Green in 1979, indicated that 63% of the plants were flowering/reproductive and 37% of the plants were non-reproductive (Phillips et al. 1980).

HABITAT: Gravelly soil of rocky slopes and ridges with good grass cover in semi-desert grassland, dry oak woodland, and pine-oak woodland communities. Martin et al. (1998) describe the habitat of this species in Mexico as bare rock outcrops, granite slopes, and altered soils in oak or pine-oak woodland.

ELEVATION: Known from approximately 4,240 - 5,650 feet in Arizona (1272-1695 m). In Mexico, this species has been collected from about 850 - 2000 m (Martin et al. 1998).

EXPOSURE: Various, but usually in exposed situations.

SUBSTRATE: Gravelly soil of volcanic conglomerates, rhyolitic tuft, or granite. Phillips et al. (1980) list the soil characteristics as shallow and very shallow, very cobbly loams, very cobbly clay loams or cobbly sandy loams from sand, gravel, and conglomerate parent materials.

PLANT COMMUNITY: Semi-desert grassland and madrean evergreen woodland communities as defined by Brown (1994). Associated species vary but include *Gnaphalium arizonicum*, *Muhlenbergia* spp., *Bouteloua radicata*, *Microchloa kunthii*, *Quercus* spp., *Juniperus deppeana*, *Erythrina flabelliformis*, *Milla biflora*, *Gutierrezia sarothroides*, *Mimosa dysocarpa*, *Dasyliirion wheeleri*, *Brickellia venosa*, *Eriogonum wrightii*, *Aspicarpa hirtella*, *Dodonaea viscosa*, *Arctostaphylos pungens*, *Fouquieria splendens*, *Eysenhardtia polystachya*, *Zornia diphylla*, *Andropogon* sp., *Hilaria belangeri*, etc. In some populations, this species occurs near other uncommon species such as *Agave schottii* var. *treleasei*, *Coryphantha scheeri* var. *robustispina*, *Browallia eludens*, *Coursetia glabella*, *Graptopetalum bartramii*, etc.

POPULATION TRENDS: Population sizes are usually very small, with typically no more than 40 plants found in any of the populations known from Arizona. Information in the HDMS database suggests that population sizes are variable from year to year. Phillips et al. (1980) state that this species was probably more common before its habitat was altered by excessive grazing.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:	None (USDI, FWS 1996) [Category 3C, 1985 Notice of Review] [Category 1, 1980 Notice of Review]
STATE STATUS:	None
OTHER STATUS:	Forest Service Sensitive (USDA, FS Region 3 1999) [Forest Service Sensitive USDA, FS Region 3 1990]

MANAGEMENT FACTORS: This species is currently only known from approximately thirteen different populations in Arizona. These populations are typically small, with less than 40 plants in each. Most populations are known from the Atascosa and Pajarito mountains. Livestock grazing should be monitored closely and properly managed in areas known to have populations of this species.

CONSERVATION MEASURES TAKEN: This species has been listed as “Forest

Service Sensitive” since 1990.

SUGGESTED PROJECTS: Periodic monitoring of known populations should be performed. Areas with suitable habitat should be searched for this species, in order to better understand its distribution and status in Arizona.

LAND MANAGEMENT/OWNERSHIP: In Arizona, this species is currently only known from lands owned by the USFS - Coronado National Forest (Nogales and Sierra Vista Ranger Districts).

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

- Brown, D. E. ed. 1994. Biotic communities: southwestern United States and northwestern Mexico. University of Utah Press. Salt Lake City. 342 pp.
- Gray, A. Comb. nov. *E. eriophyllum* Gray. *Plantae Wrightianae* 2:77-78.
- Fletcher, R. 1980. Unpublished provisional status report on *Conyza eriophylla*. U. S. Forest Service, Albuquerque, New Mexico.
- Kearney, T.H. and R.H. Peebles. 1960. Arizona Flora (with supplement). University of California Press. Berkeley.
- Martin, P. S., Yetman, D., Fishbein, M., Jenkins, P., Van Devender, T. R., and R. K. Wilson. 1998. Gentry's Rio Mayo Plants: the tropical deciduous forest and environs of northwest Mexico. The University of Arizona Press. Tucson. p. 242.
- Nesom, G. 1990. Taxonomy of the genus *Laennecia* (Asteraceae: Asterae). *Phytologia* 68(3): 204-228.
- Phillips, A. M. et al. 1980. Unpublished status report. Prepared for U.S. Fish and Wildlife Service, Albuquerque, New Mexico.
- USDA, Forest Service Region 3. 1990. Regional Forester's Sensitive Species List.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
- Warren, P. 1999. Unpublished abstract for the as yet unpublished Arizona Rare Plants Field Guide. 1 pp.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

- R. Fletcher - Regional Ecologist, USFS Region 3, Albuquerque, New Mexico.
- Guy Nesom - Sam Houston State University, Texas.
- F.W. Reichenbacher - Southwestern Field Biologists, Tucson, Arizona.
- Peter Warren - The Nature Conservancy, Tucson, Arizona.

ADDITIONAL INFORMATION:

Phillips, et al. 1980: Recommended Endangered status for this plant, but this was published before they knew of the new locations in Arizona and Mexico.

Revised: 1980-xx-xx (ANHP)
1991-11-13 (PLW)
1999-11-17 (DJG)
1999-11-24 (DJG)

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