



ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDAST3M4X0

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Erigeron piscaticus*
COMMON NAME: Fish Creek Fleabane
SYNONYMS: *Erigeron lemmoni* Gray (in part)
FAMILY: Asteraceae

AUTHOR, PLACE OF PUBLICATION: Nesom, G.L. 1989. *Phytologia* 67(4):304-306.

TYPE LOCALITY: Fish Creek Canyon, Maricopa County, Arizona.

TYPE SPECIMEN: US. Peebles, R.H. and E.D. Eaton (7953). 16 July 1931.

TAXONOMIC UNIQUENESS: One of at least 29 species of *Erigeron* occurring in Arizona. *E. piscaticus* was originally considered as part of *E. lemmoni*.

DESCRIPTION: **Annual**, up to 40 cm (16 in.) tall from slender tap root with numerous branches. Entire plant minutely but densely stipitate-glandular. **Sparsely but evenly pilose (soft hairs) with stiffly spreading trichomes.** Leaves obovate, sessile or with a short petiolar region, not clasping; mostly 10.0-22.0 mm (0.4-0.88 in.) long, 2.0-7.0 mm (0.08-0.28 in.) wide; **leaves entire or rarely with single tooth**; apex apiculate (small, broad point). Ray flowers 4-58 in 1-2 series (layers), corollas white. Disc corollas 1.5-1.8 mm (0.06-0.07 in.) long, inflated and white-indurated just above the tube. Achenes 0.8-1.0 mm (0.03-0.04 in.) long, tan, sparsely strigose to glabrate; pappus of 8-11 bristles about two-thirds as long as disc corollas, with a few but prominent outer setae, 0.1-0.2 mm (0.004-0.008 in.) long. **Rays typically blue when dried. Phyllaries (toothed bracts surrounding heads) in 2-3 series of nearly equal length**, other species unequal.

AIDS TO IDENTIFICATION: *E. piscaticus* lacks lobed leaves, has only sparse hairs on the upper stem. Heads (disc area) 4.0-5.0 mm (0.16-0.20 in.) wide. All of co-occurring species (*E. divergens*, *E. lobatus*, *E. lemmoni* and *E. piscaticus*) have much larger heads. For comparison of these species, see chart, page 3 of abstract (Gori 1994).

ILLUSTRATIONS: Line drawing (USFWS)

TOTAL RANGE: Central Arizona. Fish Creek Canyon, Superstition Mountains, Maricopa County; and Turkey Creek and Oak Grove Canyon (Aravaipa Canyon tributaries), Galiuro Mountains, Graham County.

According to Dave Gori (1999), surveys have been conducted since 1989, including a 1998 survey of Aravaipa Creek, and to his knowledge there are no other extant locations for this plant except Oak Grove Canyon.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Annual

PHENOLOGY: Flowers and fruits May - August, probably continuing until October.

BIOLOGY: Environmental cues to initiate germination are unknown. As an annual, this species may not emerge in some years.

HABITAT: Moist, sandy canyon bottoms associated with perennial streams. One site, low terrace, bare soil with annual grasses, herbs, walnut, alder, little overstory. Another site, higher terrace, canyon walls, walnut, juniper.

ELEVATION: 2,250 to 3,500 feet (686-1068 m).

EXPOSURE: Level

SUBSTRATE: Sandy alluvium

PLANT COMMUNITY: Southwest riparian plant community

POPULATION TRENDS: 1993 and 1994 surveys showed 79 plants both years. Population stable. In July, 1994, 30 plants with an increase in September to 79 plants. Greater germination after summer rains is evidence that plant can germinate and flower later in season (previously believed to be only after winter rains).

Only four collections known: two from Fish Creek in 1929 and 1931; and two from Turkey Creek and vicinity in 1976 and 1979. A survey of these sites was conducted in 1990 (Gori et. al. 1990). No plants located at Fish Creek and Aravaipa locations. A similar survey of the Galiuro Mountains located 76 plants in Oak Grove Canyon and 11 in Turkey Creek giving a total population of 87 in 1992.

Per Gori (1999), plants have been found and annually monitored in Oak Grove canyon since 1992. According to Gori, there are no other extant locations for this plant except Oak Grove Canyon.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)
[Category 2 USDI, FWS 1993]

STATE STATUS: Salvage Restricted (ARS 1993)

OTHER STATUS: Forest Service Sensitive (USDA, FS Region
3 1990, 1999)
Bureau of Land Management (USDI, BLM
AZ 2000, 2005)

MANAGEMENT FACTORS: Small range and population size of this species make it susceptible to natural and man-caused disturbances. Other factors that could affect the species are: collection location at Turkey Creek was in area used as a casual camping site; poor watershed conditions; Oak Grove Canyon hiking traffic; flooding; and recreation (camp sites). Greatest problem: only one population known with 80 plants. Light grazing does **not** seem to affect plant.

CONSERVATION MEASURES TAKEN: Fish Creek site in Superstition Mountains within Superstition Wilderness Area. Turkey Creek and Oak Grove Canyon sites are on Aravaipa Canyon Preserve.

SUGGESTED PROJECTS: Regularly survey Fish Creek over the course of many years and changing environmental conditions. When plants are present at Fish Creek, expand survey into other potential streams in the Superstition Mountains, Aravaipa Canyon and possibly the Galiuro Mountains. Survey is greatest management need throughout Aravaipa Canyon watershed as well as the Superstition Mountains. July or August good time for survey.

LAND MANAGEMENT/OWNERSHIP: USFS - Tonto National Forest; TNC - Aravaipa Canyon Preserve; Possibly BLM - Safford District.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Arizona Revised Statutes, Chapter 7. 1993. Arizona Native Plant Law. Appendix A:3.
- Gori, D.F., P.L. Warren, and L.S. Anderson (TNC). 1990. Population studies of sensitive plants of the Huachuca, Patagonia, and Atascosa mountains, Arizona. Prepared for the Coronado National Forest, Tucson, Arizona.
- Gori, D. and J. Malusa (TNC). 1991. A survey of *Erigeron piscaticus* in the regions of Aravaipa Canyon, Galiuro Mountains and Fish Creek Canyon, Superstition Mountains, Arizona. Prepared for U.S. Fish and Wildlife Service, Phoenix, Arizona.
- Gori, D. 1994. Bureau of Land Management, Safford District, Rare Plant Workshop. November 14-16. Tucson, Arizona.

Gori, D. 1999. Personal notes pertaining to *Erigeron piscaticus*, *Limosella pubiflora*, *Salvia amissa*, *Tralinum marginatum*. Notes sent to D. Godec (AGFD).
 Gori, D. 1999. *Erigeron piscaticus* (Fish Creek Fleabane), Asteraceae. Draft abstract from Arizona Rare Plant Book.
 Nesom, G.L. 1989. A new species of *Erigeron* (Asteraceae: Astereae) from Arizona. *Phytologia* 67(4):304-306.
 USDA, Forest Service Region 3. 1990. Sensitive Plant List. p. 16.
 USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
 USDI, Bureau of Land Management. 2000. Arizona BLM Sensitive Species List. Instruction Memorandum No. AZ-2000-018.
 USDI, Bureau of Land Management. 2005. Arizona BLM Sensitive Species List.
 USDI, Fish and Wildlife Service. 1993. Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 58(188):51163.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

Dave Gori - The Nature Conservancy, Tucson, Arizona.
 Jim Malusa - The Nature Conservancy, Tucson, Arizona.
 Guy L. Nesom - University of Texas, Austin.

ADDITIONAL INFORMATION:

Erigeron piscaticus incorrectly included in the flora of the Pinaleno Mountains (W.T. Johnson, M.S. thesis, Arizona State University, 1986?), but this misidentification was corrected in Johnson, 1988. *Flora of the Pinaleno Mountains*. *Desert Plants* 8:147-191.

Revised: 1990-01-23 (SST)
 1990-12-04 (SR)
 1992-09-16 (BKP)
 1994-09-08 (PLW)
 1994-03-28 (DBI)
 2001-12-18 (SMS)

<u><i>E. divergens</i></u>	<u><i>E. lobatus</i></u>	<u><i>E. lemmoni</i></u>	<u><i>E. piscaticus</i></u>
Canyon bottoms (can be wider)	Canyon bottoms (can be wider)	Next to cliffs, (only 1 population)	Shady canyon bottoms.
Leaves mostly entire (base of plant may be lobed)	All lobed	Lobed and entire	All entire
Heads: 8.0-10.0 mm. (0.32-0.4 in.) Erect, taller plant	Heads: 8.0-10.0 mm (0.32-0.4 in.)	Heads: 6.0-10.0 mm (0.24-0.40 in.)	Heads: 4.0-5.0 mm (0.16-0.20 in.) Low growing with very small flowers

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