

## A NEW SPECIES OF *ERIGERON* (ASTERACEAE: ASTEREA) FROM ARIZONA

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### ABSTRACT

A new species, *Erigeron piscaticus*, is described from south central Arizona, where it is known only from Fish Creek Canyon of Maricopa Co. and Aravaipa Canyon of adjacent Graham Co. It is a member of sect. *Olygotrichium*, most closely related to *E. lobatus* and *E. velutipes*.

KEY WORDS: *Erigeron*, Asteraceae, Astereae, Arizona.

The species of *Erigeron* in Arizona have not been critically examined since Cronquist's monographic study (1947). During the preparation of a taxonomic treatment of *Erigeron* for a new and forthcoming "Arizona Flora," a novel species has come to light and is described below. Two other species, previously unknown for Arizona or the United States but more common in México, will be treated in a separate paper.

*Erigeron piscaticus* Nesom, *spec. nov.* TYPE: UNITED STATES. Arizona: Maricopa Co., Fish Creek Canyon, [ca 3000 ft], 16 Jul 1931, *R.H. Peebles* & *E.D. Eaton 7953* (HOLOTYPE: ARIZ!; Isotypes: LL!, US).

*E. lobato* A. Nelson similis duratione et vestimento sed caulis longioribus tenuioribus saepe decumbentibus, foliis minoribus integris, et capitulis minoribus differt.

Annuals from a slender taproot, producing numerous procumbent or ascending decumbent branches from the base, the entire plant minutely but densely stipitate glandular and sparsely but evenly pilose with stiffly spreading trichomes mostly 1.0-1.5 mm long, with some petiolar cilia up to 2.0 mm long. Stems up to 40 cm long. Leaves obovate, sessile or with a short petiolar region, not clasping, the largest near the base, slightly reduced upwards, mostly 10-22 mm long, 2-7 mm wide, entire or rarely with a single tooth, the apex apiculate. Heads 4-5 mm wide (pressed), terminal on ebracteate peduncles 10-40 mm long; phyllaries with a prominent, orange resinous midrib



and thin hyaline margins near the apex, in 2-3 series of nearly equal length, the innermost 2.8-3.4 mm long. Ray flowers 45-58 in 1-2 series, the corollas white, 3.5-3.7 mm long with ligules 0.4-0.6 mm wide, remaining more or less straight with maturity. Disc corollas 1.5-1.8 mm long, inflated and white indurated just above the tube. Achenes 0.8-1.0 mm long, tan, sparsely strigose to glabrate; pappus of 8-11 bristles ca 2/3 as long as the disc corollas, with a few but prominent outer setae 0.1-0.2 mm long.

Additional collections examined: UNITED STATES. Arizona: Maricopa Co., Fish Creek, Apache Trail, Oct 1929, *Eastwood 15976* (CAS); Graham Co., Jackson Spring in Oak Grove Canyon, ca 3 mi by road S of confluence of Aravaipa and Turkey Creek, shaded canyon bottom, 3500 ft, 29 Jul 1979, *Anderson & Warren 149* (ARIZ); Graham Co., Turkey Creek, 1/2 mi from jct with Aravaipa Creek, riparian woodland, 3300 ft, 8 Jul 1976, *Bingham 2355* (ASU).

The localities of the new species in Maricopa and Graham counties are within about 70 miles of each other. Similar sites in the intervening territory should be investigated for its occurrence.

The type of *Erigeron piscaticus* was included by Cronquist (1947) in his concept of *E. lemmonii* A. Gray and cited among the specimens examined of the latter. With more specimens at hand, however, the two taxa can be seen to differ in numerous features, summarized in the couplet below.

1. Perennials; non glandular hairs of upper stems dense, 0.4-0.6 mm long; lower cauline leaves toothed or lobed; heads 7-8 mm wide, on peduncles 3-18 mm long; phyllaries in 3-4 strongly graduated series, the innermost 4.0-4.3 mm long; disc corollas 3.0-3.2 mm long, not inflated or indurated; cliff crevices, ca 8000-9000 ft ..... *E. lemmonii*
1. Annuals; non glandular hairs of upper stems sparse, 1.0-1.5 mm long; lower cauline leaves entire; heads 4-5 mm wide, on peduncles 10-40 mm long; phyllaries in 2-3 series of nearly equal length, the innermost 2.8-3.4 mm long; disc corollas 1.5-1.8 mm long, inflated and indurated; sandy canyon bottoms, 3000-3500 ft ..... *E. piscaticus*

Although both *Erigeron lemmonii* and *E. piscaticus* are members of *Erigeron* sect. *Olygotrichium* Nutt. (Nesom 1989), the new species is apparently most closely related to *E. lobatus* A. Nelson and *E. velutipes* Hook. & Arn., with which it shares the very distinctive vestiture, rays that typically dry blue and habitats at relatively low elevations. Cronquist also recognized this relationship, though inadvertently, as he annotated the CAS specimen (cited above) as "*E. lobatus*." The three taxa are distinguished by the following key.

1. Leaves lobed, often pinnatifid; heads 6-10 mm wide; inner phyllaries 3.5-4.5 mm long; achenes 1.2-1.4 mm long; Arizona, southern Nevada, northwestern Sonora ..... *E. lobatus*



1. Leaves entire to few toothed; heads 4-7(-9) mm wide; inner phyllaries mostly 2.5-3.5 mm long; achenes 0.8-1.1 mm long; Arizona, western México ..... (2)
2. Leaves usually few toothed, less commonly entire; heads 5-7(-9) mm wide; ray corollas 5.0-5.5 mm long; disc corollas 1.7-2.4 mm long; Pacific slope of México, from Sonora and Chihuahua to Michoacán ..... *E. velutipes*
2. Leaves entire, rarely with a single tooth; heads 4-5 mm wide; ray corollas 3.5-3.7 mm long; disc corollas 1.5-1.8 mm long; south central Arizona ..... *E. piscaticus*

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