

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

Plant Abstract

Element Code: PDPLM0G030

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Loeseliastrum franciscanum* R. Crawford

COMMON NAME: None

SYNONYMS: None

FAMILY: Polemoniaceae

AUTHOR, PLACE OF PUBLICATION: Crawford, R. and T. Ayers. 2017. *Madroño* 64(1):51-58.

TYPE LOCALITY: Near Black Bottom Crater, Wupatki National Monument, Coconino County, Arizona. [NB: Although the type specimen label states 'Wupatki National Monument', it was actually collected on adjacent National Forest Service land.]

TYPE SPECIMEN: ASC Herbarium (Flagstaff). R. Crawford 1440. 6 June 2015.

TAXONOMIC UNIQUENESS: There are 4 species of *Loeseliastrum* in the western United States, two of which occur in Arizona (*L. franciscanum* and *L. schottii*).

DESCRIPTION: Single to multiple stemmed annual herbs, 2.5-17 cm tall, prostrate to erect, from a single taproot. Stems purple to green, sparsely to densely hirtellous, hairs a mix of gland-tipped to eglandular hairs to multicellular flattened hairs, becoming denser distally. Basal and cauline leaves. Leaves alternate, sessile to subsessile, entire to pinnately 3-5 lobed or toothed, 5-20 x 0.1-7 mm wide, lobes and teeth bristle-tipped. Leaves contain a mixture of eglandular and gland-tipped hairs. Inflorescences subcapitate, axillary and terminal, 5-25 in number; flower funnelform, 5.8-7.5 mm in length, with a white corolla, limbs bilabiate, upper lip 3-lobed, bottom lip 2-lobed. Upper lips contain yellow spots at the base of each lobe, usually with a lavender arch above. Bottom lips usually without the defining marks of the top lips. Fruit a capsule that dehisces along apical valves, 3-4 mm long. Rugulose seeds, olive to brown in color, 1.3 - 1.8 mm in length. 7-12 per capsule.

AIDS TO IDENTIFICATION: A strongly bilabiate corolla sets this species apart from *L. depressum*, the species it most resembles. *L. schottii*, the other species within this genus that occurs in Arizona, can be separated by its compact inflorescence, leaf bristles longer than the leaf lobes, and pinnatifid leaves with 5-9 lobes (versus 3-5).

ILLUSTRATIONS: Line drawing of habit, flower, fruit, leaf (Crawford and Ayers 2014).

Color photographs of plants (Crawford and Ayers 2014).

TOTAL RANGE: Northern Arizona.

RANGE WITHIN ARIZONA: Coconino County: Eastern edge of the San Francisco Volcanic Field.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Annual herb with prostrate to erect stems

PHENOLOGY: Flowers April to August, fruits May to September

BIOLOGY: This species is apparently endemic to the San Francisco volcanic field. Populations at known localities tend to have few individuals, with the largest site (Black Bottom Crater) yielding over a hundred individuals in a 4 ha area in counts during 2013 and 2014.

HABITAT: All known sites occur near cinder cones in silty or clayey substrates.

ELEVATION: 1340 - 1780 m

EXPOSURE: Unknown

SUBSTRATE: clay soils, fine sediments

PLANT COMMUNITY: Great Basin Desert Grassland, openings in pinyon/juniper

POPULATION HISTORY AND TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

OTHER STATUS: None

MANAGEMENT FACTORS: Populations may benefit from slight disturbance (Crawford 2019, pers. comm.).

PROTECTIVE MEASURES TAKEN: None

SUGGESTED PROJECTS: Surveys to detect additional populations; this plant is expected from Wupatki and Sunset Crater National Monuments and finding it on federal lands would add additional protection (R. Crawford pers. comm.). Monitor known populations to detect population trends.

LAND MANAGEMENT/OWNERSHIP: USFS Coconino National Forest; Navajo Nation; private - CO Bar Ranch.

SOURCES OF FURTHER INFORMATION

REFERENCES:

Crawford, R. and T. Ayers. 2014. A New Species of *Loeseliastrum* (Polemoniaceae) From Northern Arizona. *Madroño*, 64(1):51-58.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

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