Monolepis pusilla Torr.

red poverty-weed

Chenopodiaceae (Goosefoot Family)

Status: State Threatened
Rank: G5S1

General Description: Adapted from Hitchcock (1964): A rounded annual that is 1 1/8 to 7¾ in. (3 to 20 cm) tall, more or less mealy or becoming hairless at maturity, and often somewhat reddish. The leaves are 1/8 to ½ in. (3 to 12 mm) long, entire, obtuse, and narrowed abruptly to a very short petiole. The lower leaves are usually deciduous before or shortly after anthesis and the blades are oblong or somewhat ovate. There are numerous, minute flowers and there are 1 to 5 flowers in the axils of much-reduced bracts. There are typically 1 to 3 linear sepals that are 1/128 to 1/64 in. (¼ to ½ mm) long and they all tend toward one side of the flower with the central sepal being the largest. There are often 2 stamens. The reddish-brown mature fruit wall is sparsely covered with small hairs. The achene is about 1/64 in. (½ mm) broad.

Identification Tips: There are three species of *Monolepis* in the Pacific Northwest. *Monolepis pusilla* can be distinguished from the other two species by its branching system, leaves, flowers, and perianth. *M. pusilla* is repeatedly dichotomously branched, its leaves are inconspicuous, its leaf blades are entire and oblong to ovate, it has 1 to 5 flowers per axil, and its perianth is linear and has 1 to 3 segments. *M. nuttalliana* and *M. spathulata* are not dichotomously branched, their leaves are evident and generally either spatulate or hastately lobed, they usually have over 5 flowers per axil, and their perianth is more or less spatulate or oblong and has 1 segment.

Phenology: Throughout the range of this species in the Pacific Northwest it is identifiable from April to July. In Washington, this species has been found from April to June.

Range: This species occurs from southeast Oregon to eastern California and east through southern Idaho and Nevada to Utah, Wyoming and Colorado. In Washington, this species was historically found in Franklin and Grant counties and is currently known from Douglas County.

Habitat: *Monolepis pusilla* occurs in desert regions and is often found on saline or alkaline soil. In Washington, this species has been found growing in saline/alkaline clay, salt-encrusted soil, and on the edge of

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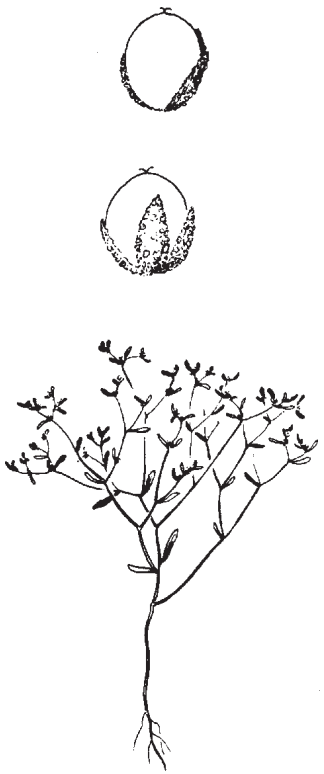

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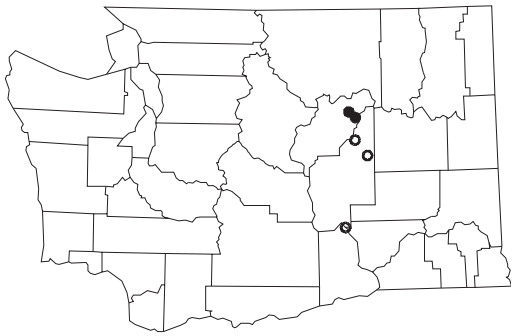
Illustration by Linda Ann Vorobik

Known distribution of
Monolepis pusilla
in Washington



● Current (1980+)
○ Historic (older than 1980)

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a dry alkaline pond at an elevation of 1950 to 2210 ft (594 to 674 m). Common associates include cheatgrass (*Bromus tectorum*), greasewood (*Sarcobatus* spp.), Pursh seepweed (*Suaeda depressa*), and fourpart phacelia (*Phacelia tetramera*).

Ecology: This species is adapted to extreme conditions, and it and its associated native annuals are largely limited to growing directly beneath *Sarcobatus* shrubs in response to cattle trampling and compacting the soil between the shrubs.

State Status Comments: This species is known from two recent occurrences in Douglas County and three historical occurrences in Franklin and Grant counties. All populations exist on private land.

Inventory Needs: Desert regions with saline and alkaline soil in Douglas, Franklin, and Grant counties should be systematically surveyed for additional populations. Known occurrences should be revisited.

Threats and Management Concerns: Definite threats have not been identified for this species. However, the small range of this taxon in Washington and the small number of known occurrences are major concerns. Any disturbance to the immediate habitat, such as grazing, development, and recreational activities, may constitute a threat.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1964. *Vascular Plants of the Pacific Northwest* Part 2: *Salicaceae to Saxifragaceae.* University of Washington Press, Seattle, WA. 597 pp.

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