

VERNAL POOL SMALLSCALE

Atriplex persistens

USFWS: Species of Concern

CDFG: None

CNPS: List 1B

Species Account

Status and Description. Vernal pool smallscale (*Atriplex persistens*) is a federal Species of Concern and a CNPS List 1B species. This plant is a gray-green, annual herb in the goosefoot family (Chenopodiaceae), 10 to 20 cm tall with many spreading to ascending branches. The small oval leaves have heart-shaped to triangular leaf bases. The separate male and female flowers are congested into glomerules in the leaf axils near the end of branches. The male flowers and the fruiting bracts have a purplish tinge (Stutz & Chu 1993, Baldwin 2012).



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Range and Distribution. Vernal pool smallscale is known from Glenn, Madera, Merced, Solano, Stanislaus, and Tulare counties (CNPS 2011). Specimens collected prior to 1993 were assigned to Parish's brittle scale (*Atriplex parishii*) (USFWS 2003). There are 39 known occurrences of this species range wide of which 36 are believed to be extant (CNDDB 2011). The largest concentration of occurrences is in Sacramento National Wildlife Refuge in Glenn County (USFWS 2005). Solano County supports four known populations.

Habitat and Ecology. Vernal pool smallscale is reported by the USFWS (2005) to grow in the bottoms of the basins of larger, alkaline vernal pools. However, this species could occur in smaller alkaline vernal pools where competition with annual grasses is minimal because of high alkalinity. Associated plants observed with vernal pool smallscale include alkali heath (*Frankenia salina*), button celery (*Eryngium yvesii*), Colusa grass (*Neostaphia colusana*), hairy orcutt grass (*Orcuttia pilosa*), Hoover's spurge (*Chamaesyce hooveri*), heartscale (*Atriplex cordulata*), and brittle scale (*Atriplex depressa*). It blooms July through October (CNPS 2011).

Population Levels and Occurrence in Plan Area. Vernal pool smallscale is grown in the alkali pools and flats within the Plan Area's Valley Grasslands and Vernal Pools Natural Community. There are four occurrences of this species within the Plan Area: three are located in the Jepson Prairie region of the County and a fourth is in the southwest Fairfield. (See the Species Occurrence map)

Threats to the Species. Vernal pool smallscale is threatened by conversion of wetlands to urban and agricultural uses and by flood control activities (CNPS 2011). In Solano County, one of the three occurrences is currently protected on Jepson Prairie Preserve (CNDDB 2011; Jepson Prairie 1998). Of the total 34 occurrences, 19 (56 percent) are on public lands or nature reserves. However, no specific measures are known to have been undertaken to conserve or manage this species on these protected sites (USFWS 2005).

Literature Cited

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