

Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon

This recovery plan features 33 species of plants and animals that occur exclusively or primarily within a vernal pool ecosystem in California and southern Oregon. The 20 federally listed species include 10 endangered plants, 5 threatened plants, 3 endangered animals, and 2 threatened animals.

The federally endangered plants are *Eryngium constancei* (Loch Lomond button-celery), *Lasthenia conjugens* (Contra Costa goldfields), *Limnanthes floccosa* ssp. *californica* (Butte County meadowfoam), *Navarretia leucocephala* ssp. *pauciflora* (few-flowered navarretia), *Navarretia leucocephala* ssp. *plieantha* (many-flowered navarretia), *Orcuttia pilosa* (hairy Orcutt grass), *Orcuttia viscida* (Sacramento Orcutt grass), *Parvisedum leiocarpum* (Lake County stonecrop), *Tuctoria greenei* (Greene's tuctoria), and *Tuctoria mucronata* (Solano grass).

The federally threatened plants are *Castilleja campestris* ssp. *succulenta* (fleshy owl's clover), *Chamaesyce hooveri* (Hoover's spurge), *Neostapfia colusana* (Colusa grass), *Orcuttia inaequalis* (San Joaquin Valley Orcutt grass), and *Orcuttia tenuis* (slender Orcutt grass).

The three federally endangered animal species are the Conservancy fairy shrimp (*Branchinecta conservatio*), longhorn fairy shrimp (*Branchinecta longiantenna*), and vernal pool tadpole shrimp (*Lepidurus packardi*).

The two federally threatened animal species are the vernal pool fairy shrimp (*Branchinecta lynchi*) and delta green ground beetle (*Elaphrus viridis*).

In addition, 13 species of concern are addressed. The plants include *Astragalus tener* var. *ferrisiae* (Ferris' milk vetch), *Astragalus tener* var. *tener* (alkali milkvetch), *Atriplex persistens* (vernal pool smallscale), *Eryngium spinosepalum* (spiny-sepaled button-celery), *Gratiola heterosepala* (Boggs Lake hedge-hyssop), *Juncus leiospermus* var. *ahartii* (Ahart's dwarf rush), *Legenere limosa* (legenere), *Myosurus minimus* var. *apus* (little mousetail), *Navarretia myersii* ssp. *deminuta* (small pincushion navarretia), and *Plagiobothrys hystriculus* (bearded popcorn flower). The animals include the midvalley fairy shrimp (*Branchinecta mesovallensis*), California fairy shrimp (*Linderiella occidentalis*), and western spadefoot toad (*Spea hammondii*).

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