

## 7.2 Stephens' Kangaroo Rat (*Dipodomys stephensi*) – Category SO

### Management Units with Known Occurrences

Endemic to southern California, the Stephens' kangaroo rat is a federally endangered and state-threatened (FE, CT), small nocturnal mammal native to open grasslands and sparse coastal sage scrub that consists of both native and nonnative herbs and grasses and filaree (USFWS 1997; Spencer 2005). Currently existing in fragmented populations disconnected by urban landscapes (Shier and Navarro n.d), these kangaroo rats can be found mostly in western Riverside County, extending south into northern San Diego County and possibly southwestern San Bernardino County (USFWS 1997). Within the MSPA, the Stephens' kangaroo rat has historically had occurrences in MUs 5, 6, 8, and 9 (see Table of Occurrences and online map: <http://arcg.is/2jxObno>). On Conserved Lands, 1 population can be found on the Ramona Grasslands Preserve in MU5. Other populations are found at MCB Camp Pendleton, Naval Weapons Station Fallbrook, Rancho Guejito, and Lake Henshaw/Warner Springs (Shier and Navarro n.d).

### Management Categorization Rationale

The Stephens' kangaroo rat should be managed as a Species Management Focus Category SO Species because persistence of one or more significant occurrences in the MSPA is at high risk of loss without immediate management action above and beyond that of daily maintenance activities and because management of its grassland habitat alone will not ensure its persistence. Because of limited occurrences of Stephens' kangaroo rat within the MSPA, the number of individuals present appears very small. Furthermore, the habitat for the portion of the occurrence in the MSPA is threatened by fragmentation by widespread urban and rural development and roads.

Threats to the Stephens' kangaroo rat include isolation, habitat fragmentation, loss of connectivity between occurrences, potentially low genetic diversity due to small population size, degradation of habitat quality, and predation from domestic cats (USFWS 2011). The increase of nonnative grasses and thatch in the MSPA has also inhibited movement of the species (USFWS 2011). Uses of traps and rodenticides, primarily associated with agricultural activities and control in residential areas and dam structures, has caused direct mortality (USFWS 1997).

## Management and Monitoring Approach

The overarching goal for Stephens' kangaroo rat is to protect, enhance, and restore occupied habitat and historically occupied habitat and the landscape connections between them to create resilient, self-sustaining populations that provide for persistence over the long term (>100 years).

For the planning cycle of 2017–2021, the management and monitoring approach is to inspect extant Stephens' kangaroo rat occurrences on Conserved Lands (see Table of Occurrences) using the regional rare plant IMG monitoring protocol to record abundance and collect habitat and threats covariate data to determine management needs. Conduct routine management actions as identified.

For details and the most up-to-date goals, objectives, and actions, go to the MSP Portal Stephens' Kangaroo Rat summary page: [https://portal.sdmmp.com/view\\_species.php?taxaid=180247](https://portal.sdmmp.com/view_species.php?taxaid=180247)

## Stephens' Kangaroo Rat References

Shier, D. M., and A. Navarro. n.d. Range-wide Genetics of the Stephens' Kangaroo rat (*Dipodomys Stephensi*). Final Report. 33 pp.

Spencer, W. D. 2005. Stephens' Kangaroo Rat Survey. Conservation Biology:2.

USFWS (U.S. Fish and Wildlife Service). 1997. Draft recovery plan for the Stephen's kangaroo rat. Portland, OR.

USFWS. 2011. Stephen's Kangaroo Rat (*Dipodomys stephensi*) 5-Year Review: Short Form Summary. Carlsbad Fish and Wildlife Office, Carlsbad, California, USA.