

Preble's Shrew (*Sorex preblei*)**Species Status Statement.**Distribution

The currently-understood distribution of this species in Utah consists of four localities, all in the northwestern part of the state. One site is on state owned land administered by the Utah Division of Wildlife Resources as a waterfowl management area. The other three Utah localities all occur on federally-owned land. The Bureau of Land Management, the U. S. Forest Service, and the U. S. Fish and Wildlife Service each manage one site.

Table 1. Utah counties currently occupied by this species.

<b>Preble's Shrew</b>
BOX ELDER
JUAB
TOOELE

Abundance and Trends

Information in this regard is extremely lacking. Preble's shrew is one of the rarest shrews in Utah, and in the United States. Surveyors have only found and identified seven individuals with certainty in Utah. The species was unknown from Utah until 1983. No population trend can be determined from such sparse data.

**Statement of Habitat Needs and Threats to the Species.**Habitat Needs

The Utah specimens were collected from spring complexes with salt grass vegetation near the Great Salt Lake, and from streamside willows near the Raft River Mountains. Elsewhere the species also uses other habitats, hence it is possible future surveyors will discover this shrew in more diverse situations within Utah as well.

Threats to the Species

Oliver (1997, p. 464) commented: "Since wetland habitats in Utah are threatened by a wide variety of disturbances (e.g., dewatering, trampling by livestock, pollution from agricultural runoff, mosquito abatement programs, inundation resulting from damming), the habitat of this species in Utah must be considered threatened . . . In addition, fluctuations in the level of the

Great Salt Lake could pose a threat . . . .” (due to inundation or desiccation of the species’ wetland habitat).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species’ entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

<b>Preble's Shrew</b>
<b>High</b>
Droughts
Livestock Farming and Ranching
Water Developments for Livestock
<b>Medium</b>
Agricultural Pollution

### **Rationale for Designation.**

The rarity of this species in Utah and the vulnerability of its habitats in this state argue for its designation as a Sensitive Species. In order to improve understanding of the distribution and status of this species in Utah, managers need to conduct occasional surveys, and monitor potential threats. These activities will help prevent the possibility of Endangered Species Act listing of this species.

### **Economic Impacts of Sensitive Species Designation.**

Sensitive species designation is intended to facilitate management of this species, which is required to prevent Endangered Species Act listing and lessen related economic impacts. All known capture sites in Utah are from riparian or marsh habitats, therefore restrictions could be placed on activities that could alter local hydrology, such as groundwater pumping, spring diversions, and marsh management. Localized restrictions on grazing could also be enacted. As shrews are difficult to survey and identify, higher costs may be associated with environmental review and compliance.

### **Literature Cited.**

Oliver, G.V. 1997. Inventory of sensitive species and ecosystems in Utah. Utah Division of Wildlife Resources. Salt Lake City, Utah, USA. 661 pp + 6 appendices (59 pp).

Salafsky, N., D. Salzer, A.J. Stattersfield, C. Hilton-Taylor, R. Neugarten, S.H.M. Butchart, B. Collen, N. Cox, L.L. Master, S. O’Connor, and D. Wilkie. 2008. A standard lexicon for

biodiversity conservation: unified classifications of threats and actions. *Conservation Biology* 22: 897–911.

Utah Division of Wildlife Resources [UDWR]. 2015. Utah Wildlife Action Plan: A plan for managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act 2015-2025. Publication Number 15-14, 385 pp.