

# USACE Natural Resource Management

## Mammals



### Preble's Meadow Jumping Mouse

### FAST FACTS

**REASONS FOR CURRENT STATUS:** The Preble's meadow jumping mouse was listed in 1998 as a threatened species across its range under the Endangered Species Act. It is one of 12 recognized subspecies of the species *Z. hudsonius*, or meadow jumping mouse. While proposed for delisting in 2005, additional data received in the years following resulted in the Preble's mouse being removed from the List of Threatened and Endangered Species in Wyoming; while remaining a valid threatened subspecies in the Colorado portion of its range. In 2011 the Courts reinstated the 1998 final rule providing protection of the mouse across its range as a threatened species; which includes Wyoming.

The Colorado Natural Heritage Program consider the subspecies to be globally-imperiled (G5T2) and critically-imperiled within the state.

Loss of habitat for the Preble's meadow jumping mouse began back as glaciers receded from the front range of Colorado and the foothills of Wyoming, confining the species to riparian systems where moisture was plentiful. Predators are typical for those of many mouse species and include garter snakes, rattlesnakes, bullfrogs, foxes, house cats, long-tailed weasels, hawks, owls, and others.

**MANAGEMENT AND PROTECTION:** Critical habitat was initially designated in 2003 and has undergone several revisions. The last revision, occurring in 2010, designated approximately 411 miles of rivers and streams and 34,935 acres of streamside habitat in Colorado. Most of the critical habitat designated occurs on lands that are privately or federally owned. Approximately 3,300 acres of Department of Defense lands were not included in the final critical habitat designation because they already are covered by an approved Integrated Natural Resource Management Plan.

**HABITAT NEEDS:** Living primarily in heavily vegetated, shrub dominated riparian (streamside) habitats, this largely nocturnal mouse prefers relatively undisturbed grassland communities with water sources nearby. (USFWS).

- Riparian areas include a relatively dense combination of grasses, forbs, and shrubs.

**Appearance:** Considered a relatively small mammal, the Preble's meadow jumping mouse is approximately 9 inches in length, with a long tail that accounts for nearly 60% of its length. The species has a distinct dark stripe down the middle of its back, that is bordered on either side by gray to orange-brown fur. (USFWS)

*Photos: Colorado Parks and Wildlife, USFWS*

*Natural Resource Management (NRM)*

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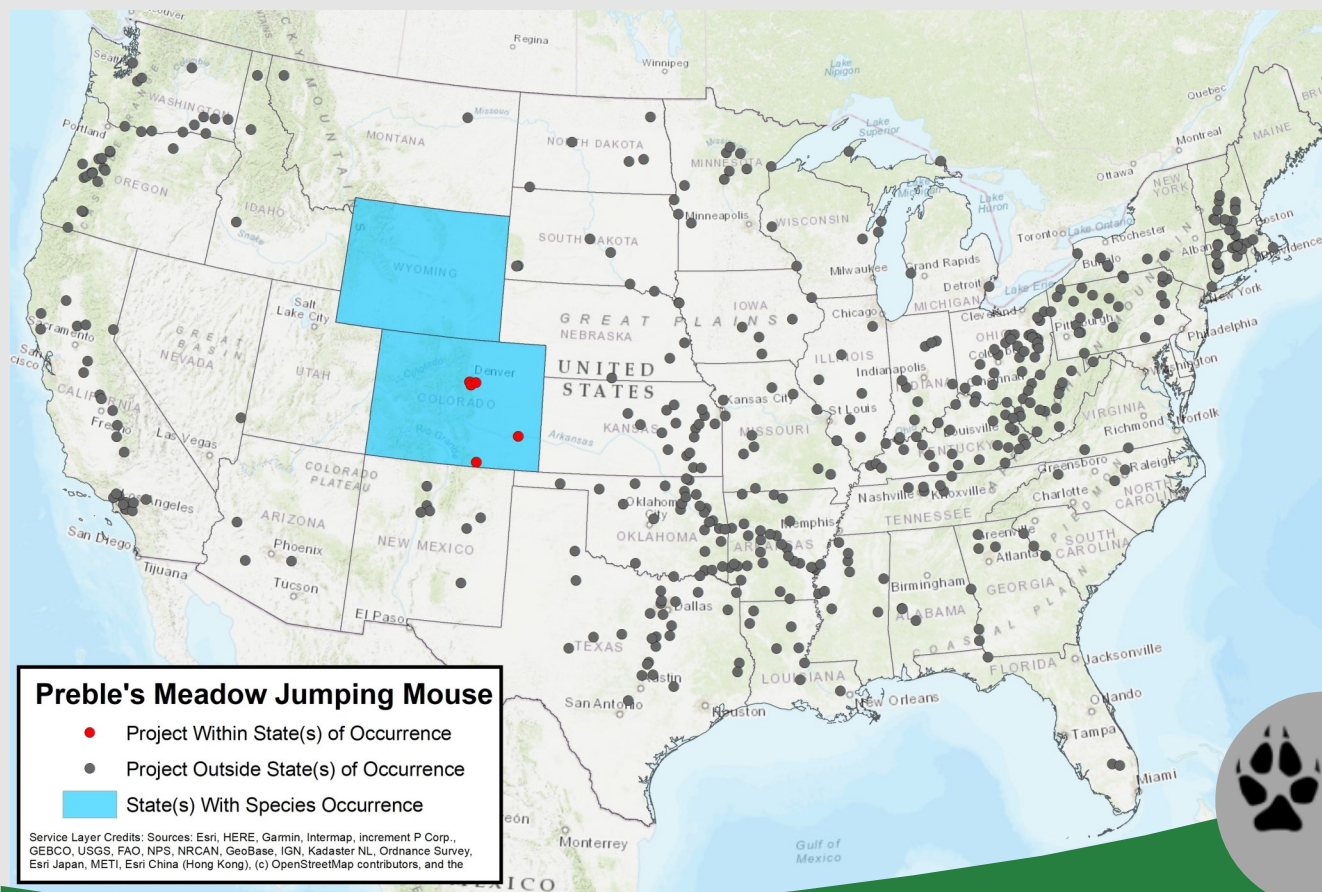


**USACE NATURAL RESOURCE MANAGEMENT ROLE:** According to the Engineering Research and Development Center's Threatened and Endangered Species Team Cost Estimates, the USACE has expended nearly \$300,000 since 2006 on efforts related to the Preble's meadow jumping mouse. Costs associated with this species have primarily been incurred by the Regulatory, Planning and Program Management, and Environment-Restoration Business Lines.

**WHAT IS USACE NRM DOING:** With a small distribution and range, the Preble's meadow jumping mouse is only reported as a rare occurrence by one NRM Project in the Omaha District. (FY20 NRM Assessment) USACE projects within the potential range of the species work with state and other land managers to employ common best management and conservation practices such as the restoration and enhancement of riparian vegetation, upland shrub, and grassland habitat. Additionally, projects control noxious weeds outside of the sub-species active season (May through October) and control erosion within stream corridors as they are recognized important conservation actions for the species.



*Image Above: A Preble's meadow jumping mouse nest. Photo by USFWS. The Preble's mouse enters hibernation in September or October and doesn't emerge until May. The typical 8 month hibernation period results in increased complexities when trying to survey and locate the species.*



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 Source: Map provided by Ashleigh Boss, ORISE Fellow, Institute for Water Resources

