

Questions and Answers

12-Month Finding on Two Petitions to Remove the Preble's Meadow Jumping Mouse, or Preble's, (*Zapus hudsonius preblei*) from the Federal List of Threatened and Endangered Species

What are the results of the Service's latest status review for the Preble's?

Following a thorough review of the best available scientific and commercial information, we find that delisting the Preble's is not warranted at this time.

The growth of the human population within the Front Range of the Rocky Mountains in Colorado and Wyoming has led to the loss and alteration of Preble's habitats. This loss results from urban development, flood control, water development, aggregate mining, and other human land uses. These threats are ongoing and will increase in magnitude as human populations in Colorado and Wyoming continue to expand.

Additional threats to the Preble's include wildfire, drought, small population sizes, and modifications to habitats resulting from climate change. We determined that floods, agriculture, grazing, and nonnative plants are not currently threats to the Preble's, but may increase in magnitude over time as human populations expand and climate change increases the frequency and intensity of wildfires and droughts. Many of these threats act cumulatively to further degrade habitats and negatively impact Preble's populations.

What prompted this 12-month finding and what does it do?

We initiated this review in response to two petitions from the State of Wyoming and Coloradoans for Water Conservation and Development to delist the Preble's. This 12-month finding evaluated the best available scientific and commercial information regarding the Preble's, including information provided in the petitions. Our review determined that the Preble's should not be removed from the Federal list of Threatened and Endangered Species. Therefore, the Preble's remains listed and retains ESA protections.

Will the Preble's stay listed in Wyoming?

Yes. Our review determined that the Preble's remains threatened throughout its range in both Colorado and Wyoming. Therefore, the ESA's protections apply to the Preble's throughout its range, including Preble's in Wyoming.

In a previous rule, we used a now-invalidated interpretation of the term "significant portion of the range", or "SPR," to remove the protections of the ESA for the Preble's in Wyoming. That interpretation has since been invalidated and our current interpretation of SPR does not allow us to reach a similar conclusion. Although human development pressures are less intense or less concentrated in Wyoming, Colorado represents a significant portion of the Preble's range that, if lost, would greatly imperil the remaining, smaller populations in Wyoming. However, threats in Colorado have not increased in magnitude or intensity such that the Preble's is in danger of

becoming extinct (i.e., endangered); therefore, the Preble's remains threatened throughout its range.

Is the Preble's a separate species?

Genetic studies confirm that the Preble's is a valid subspecies. The Preble's is genetically distinct from its closely related neighbor to the north, the Bear lodge jumping mouse (*Zapus hudsonius campestris*) found in northeastern Wyoming. Therefore, the Preble's is eligible for listing under the Endangered Species Act.

How does the Service determine whether a species is endangered or threatened?

Under the Act, the term "endangered species" means any species in danger of extinction throughout all or a significant portion of its range. The term "threatened species" means any species at risk of becoming an endangered species within the foreseeable future throughout all or a significant portion of its range.

Section 4(a)(1) of the Act establishes that we determine whether a species is endangered or threatened based on one or more of the following five factors:

- A. The present or threatened destruction, modification, or curtailment of its habitat or range;
- B. Over utilization for commercial, recreational, scientific, or education purposes;
- C. Disease or predation;
- D. The inadequacy of existing regulatory mechanisms; or
- E. Other natural or manmade factors affecting its continued existence.

The assessment of these factors is required under section 4(b)(1) of the Act to be based on the best scientific and commercial data available.

We identified threats to the Preble's under Factors A, D, and E. Specific threats include human development, the inadequacy of existing regulatory mechanisms in the absence of the Endangered Species Act's protections, wildfire, drought, small population sizes, and modifications to habitats resulting from climate change.

Where is the Preble's found?

The Preble's range is best described as a narrow strip of land extending along the eastern edge of the Front Range foothills of the Rocky Mountains from southeastern Wyoming to Colorado Springs, Colorado. The Preble's preference for riparian vegetation that borders streams and other waterbodies greatly restricts the Preble's distribution within this range. The dry, arid prairies of eastern Colorado and Wyoming limit the Preble's expansion to the east. Intense human development likely extirpated the Preble's from the Denver and Colorado Springs metropolitan areas and any downstream habitats. Additionally, new trapping and genetics data provided by the State of Wyoming suggests that the Preble's range does not extend west past the crest of the Laramie Range in Wyoming.

What are population sizes and trends of the Preble's?

Because trapping the Preble's is time consuming and often difficult, there are few estimates of population sizes in Colorado. In high quality habitats along the plains, populations average 44 mice per mile (27 mice per kilometer). Similarly, we have very little trend information for Preble's populations. However, Preble's populations in well-protected habitats at the U.S. Air Force Academy in El Paso County, Colorado, declined over seven years, suggesting that populations in less-protected habitats may have also declined.

What can be done to protect the Preble's?

The protection of the Preble's depends on the protection of its riparian habitats. Activities that eliminate, degrade, or fragment riparian habitats may adversely affect the Preble's. Therefore, wetlands and riparian ecosystems should not only be protected for the Preble's, but also for the many other species and resources that rely on these unique habitats.

What does the Preble's look like, and how does it live?

The Preble's is a small mouse with an extremely long tail, large hind feet, and long hind legs, which allow the mouse to escape from predators by making incredible jumps. The distinctive long tail is bicolored, lightly furred, and often twice as long as the body, occupying more than 60 percent of the total body length. The Preble's has a dark broad stripe on its back that runs from head to tail and is bordered on either side by gray to orange-brown fur. These features distinguish the Preble's from more common small mammals, such as deer mice (*Peromyscus maniculatus*).

The Preble's lives in heavily vegetated streamside areas with adjacent grassland cover in southeastern Wyoming, southward along the eastern edge of the Front Range foothills south to Colorado Springs in El Paso County, Colorado. The Preble's inhabits well-developed, plains riparian vegetation with relatively undisturbed grassland communities and a nearby water source. The Preble's uses grassy uplands at least as far out as 100 meters beyond the 100-year flood plain and hibernates in underground burrows during the winter.

Why should I care about the Preble's?

The health of threatened and endangered species is strongly linked to our own well-being. Millions of Americans depend on habitat that sustains these species – for clean air and water, recreational opportunities, and for their livelihoods. By taking action to protect imperiled native fish, wildlife and plants, we can ensure a healthy future for our community and protect treasured landscapes for future generations. The streamside habitats where the Preble's lives provide important natural functions that benefit humans, including reducing flood damage, protecting water quality, and slowing wildfires.

Where can I find more information?

A copy of the 12-Month Finding and other information about the Preble's is available on the Internet at <http://www.fws.gov/mountain-prairie/species/mammals/preble/> or by contacting the

Colorado Field Office at P.O. Box 25486, Denver, Colorado 80225-0486 (telephone 303-236-4773; facsimile 303-236-4005. The 12-Month Finding is published in the *Federal Register* on May 24, 2013.