Like most endangered species, the New Mexico Meadow Jumping Mouse ("NMMJM") represents a rare and vanishing habitat. Like most endangered species, NMMJM became endangered because of the loss of the habitat that they need to survive.



In the case of NMMJM, the rare and vanishing habitat is the upper elevation meadows and streams lined by dense and several foot tall streamside vegetation.

NMMJM image from April 2019, USFS presentation.

Historically, the streams and watersheds represented by NMMJM where interconnected and lined by dense streamside vegetation. But riparian habitat has suffered greatly owing to stream diversions and grazing to the degree that NMMJM now only survives in small pockets in Arizona and New Mexico.

NMMJM hibernates for eight or nine months out of the year. It has only one small litter annually. Upon emergence from hibernation, NMMJM must breed, rear young, and accumulate sufficient fat reserves to sustain them through the next hibernation period.

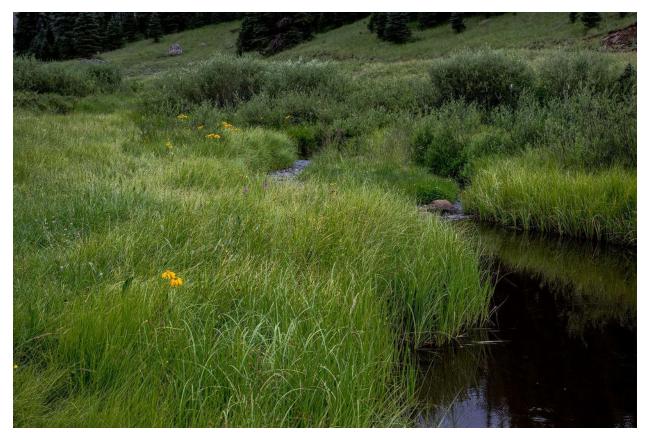
NMMJM needs streamside vegetation that is at least 24 inches tall. The Forest Service website for NMMJM, <u>https://www.fs.usda.gov/detail/r3/home/?cid=stelprd3809040</u>, describes and includes a representative NMMJM habitat image,

"The jumping mouse has very specific habitat requirements. It requires perennial or seasonally perennial water and saturated soils that produce tall (24+ inch) herbaceous riparian plants, and intact adjacent uplands (see image below).

**Below:** This image of critical habitat on the Santa Fe National Forest displays the tall herbaceous riparian vegetation and adjacent intact upland habitat that is essential to the species."



Please note other examples of healthy NMMJM Critical Habitat in the White Mountains of eastern Arizona:



Healthy NMMJM Critical Habitat without feral horses, Thompson Ranch, Apache NF, July 19, 2022, © Robin Silver



Healthy NMMJM Critical Habitat without feral horses, Thompson Ranch, Apache NF, July 19, 2022,  $\ensuremath{\mathbb{C}}$  Robin Silver



Healthy NMMJM Critical Habitat without feral horses, East Fork Black River Apache NF, July 20, 2022, © Robin Silver



Healthy NMMJM Critical Habitat without feral horses, West Fork Black River Apache NF, July 20, 2022, © Robin Silver

In two of the areas still occupied by NMMJM, the Black River watershed in the White Mountains in eastern Arizona and the Sacramento Mountains of southeastern New Mexico, the meadow and streamside habitat has suffered so much damage that NMMJM is on the verge of local extinction.

In the Sacramento Mountains, the primary acute cause of NMMJM habitat destruction is permitted, or officially authorized cow grazing trespassing into riparian exclosures.

In the White Mountains, the primary acute cause is unpermitted, unauthorized grazing by trespass or owned cows and feral or unowned horses that have escaped from the nearby White Mountain Apache Reservation. Neither the trespass cows, nor the feral horses were a problem until recently. Both the trespass cows and the feral horses moved into the Black River watershed in massive numbers after the 2011, Wallow Fire destroyed the boundary fence.

When the Forest Service refused to address the destruction being caused by the trespass cows and feral horses, the Center and Maricopa Audubon filed a <u>Notice of Intent to</u> <u>Sue</u> on June 27, 2019 and a subsequent lawsuit on February 20, 2020.

As a result, the trespass cows were returned to the White Mountain Apache Tribal owners in 2019; however, when the White Mountain Apache Tribe refused the return of their horses, the feral horses became "unauthorized livestock" requiring removal by the Forest Service itself.

The Forest Service must remove all unauthorized livestock by regulation and law when the unauthorized livestock is damaging Public Lands managed by the Forest Service. This is especially true when the unauthorized livestock are causing damage to Critical Habitat and local extinctions. Critical Habitat is habitat designated by the U.S. Fish and Wildlife Service that is essential for the survival and recovery of an Endangered Species. In the White Mountains, the streams being damaged by the unauthorized livestock are also essential rearing habitat for the endangered Apache Trout.

Starting in 2019, to avoid the feral horses needing to go to auction after removal, the Center has been trying to enlist help from the horse advocate community. The horse advocate community has refused to help.

The following two June 4, 2019, images document the conditions in NMMJM Critical Habitat at Boggy Creek.

The following images show widespread streamside trampling and removal of the essential streamside vegetation. The essential, minimal 24-inch-tall streamside vegetation has been destroyed. The images also show near complete destruction and removal of the essential woody scrub-shrub riparian willows or alders. A woody habitat exclosure is visualized in the background of the first image. A damaged, herbaceous habitat exclosure is visualized in the background of the second image.



© Robin Silver



The following May 19, 2019, images are from NMMJM Critical Habitat at Centerfire Creek a tributary of the Black River in the White Mountains. They show widespread habitat destruction with severe trampling and removal of the essential streamside vegetation. The minimally required 24-inch-tall herbaceous forbs and sedges are absent. The images also document loss of essential woody scrub-shrub riparian willows or alders:





© Robin Silver



The following June 10, 2020, images are from NMMJM Critical Habitat at Boggy Creek a tributary of the Black River in the White Mountains. They show widespread habitat destruction with severe streamside trampling, and removal of the essential dense and minimally required 24-inch-tall streamside herbaceous forbs and sedges:









Images from April 10, 2021 of Boggy Creek, a tributary of the Black River in the White Mountains:



















