

# *Southern Grasshopper Mouse (*Onychomys torridus*)*

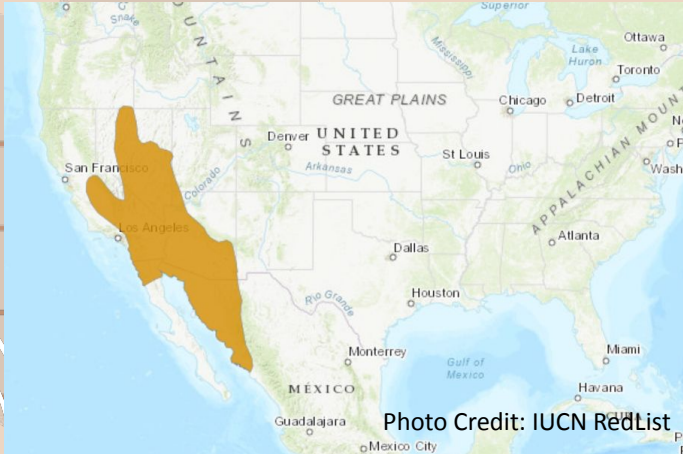
*By: Alan Vinzant  
Ashleigh Henderson  
Amanda Clark*



*Photo credit: Joel Sartore*

# Introduction

- Range: Mexico, Arizona, California, Nevada, New Mexico, and Utah
  - Shrublands and deserts
- 4.7 to 6.4 inch total length
- Bicolor countershading
  - Brown or gray patterned dorsal, white ventral
  - Juveniles uniform gray dorsal
  - Different patterns/colors for camouflage
- Carnivorous, predatory



# Taxonomy and Evolution

## Taxonomy

Domain: Eukaryota  
Kingdom: Animalia  
Phylum: Chordata  
Class: Mammalia  
Order: Rodentia  
Family: Cricetidae  
Genus: *Onychomys*  
Species: *Onychomys torridus*

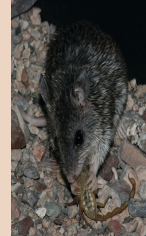
## Phylogenetic Relationships Extant

Most closely related to Northern grasshopper mouse (*Onychomys leucogaster*) and Mearns' grasshopper mouse (*Onychomys arenicola*).



(Northern grasshopper mouse)

Photo credit: Bob Gress



(Mearns' grasshopper mouse)

Photo credit: Matthew P. Rowe

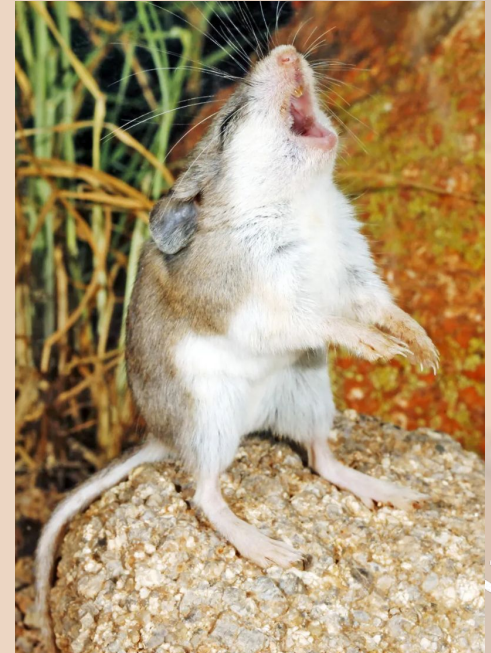
## Phylogenetic Relationships Extinct

Some extinct relatives include *Acrolophomys rhodopetros* from 9.3-8.8 Ma, *Onychomys pedroensis* 2.5-1.9 Ma, and *Onychomys Hornet* roughly 3.5 Ma.



# Behaviors & Diet

- Very aggressive predators—carnivorous
  - Generally eat scorpions, beetles, and grasshoppers
    - Sometimes known to eat snakes
  - Kill prey with repeated biting to the base of the skull
  - Strategies for incapacitating organisms with defense mechanisms
    - Scorpions (tail), beetles (abdominal secretions)
    - Immune to scorpion venom
- Extremely territorial
  - Solitary animals
  - Engage in cannibalism
  - Male howls
    - “Werewolf mouse”



Howling male



# *Ecology and Life History*

- Found in desert habitats
  - Live in burrows, typically those abandoned by other animals (or forcibly taken)
- Nocturnal
- Short lived
  - Typically live less than a year in the wild
  - Sexual maturity at ~3 months
    - Gestation period 30 days
- Can breed year round
  - Peak in late spring and summer



# Literature Cited

1. Lacher, T., R. Timm, and S. T. Álvarez-Castañeda. "Onychomys Torridus." IUCN Red List of Threatened Species, September 3, 2016. <https://www.iucnredlist.org/species/15339/115127523>.
2. Wade, Lizzie. "Mouse Impervious to Scorpion's Sting." Science, October 24, 2013. <https://www.science.org/content/article/mouse-impervious-scorpions-sting>.
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4. Kelly, T. S., Martin, R. A., Ronez, C., Cañón, C., & Pardiñas, U. F. J. (2022). Morphology and genetics of grasshopper mice revisited in a paleontological framework: reinstatement of Onychomyini (Rodentia, Cricetidae). Journal of Mammalogy, 104(1), 3–28. <https://doi.org/10.1093/jmammal/gyac093>