



Small Mammal Species Inventory

Introduction

In 2002-2003, The Klamath Network undertook a project to inventory small mammals in the six parks of the Network. Small mammals (species in the orders Insectivora, Carnivora, and Rodentia) are subject to strong seasonal and interannual fluctuations in abundance and were estimated to be the most species rich mammal group in the Network. Therefore, it was thought that these species were likely to be undersampled in most of the Klamath parks. Many microtine species are also very similar in appearance and definitive documentation of these species requires professional inventories with voucher specimens from across the array of habitats in a park. The study methodology for inventorying small mammal communities within the six units of the Klamath Network was based on live trapping specimens through the use of Sherman live traps. In a few instances, specimens were collected as voucher skins or by taking digital images. This methodology had the least possible detrimental impact on the small mammal communities sampled.



Biologist Scott Mahady opening a trap

Inventory Objectives

- Document the presence of all small mammal species in each park.
- Document distribution and abundance of the species encountered within varied habitats of each park and across the network as a whole.

Results

Crater Lake National Park

Eight species were observed from 145 captures at 3 transects. The Pacific Jumping Mouse (*Zapus trinotatus*) was the most abundant and accounted for 37% of all captures. Unique captures included an Ermine (*Mustela erminea*) and a Mazama Pocket Gopher (*Thomomys mazama*).



Microtus californicus

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Small Mammal Species Inventory (continued)

Lassen Volcanic National Park

Nine species were recorded from 133 captures at 2 transects. The ubiquitous Deer Mouse accounted for 58% of all captures. Two species were observed that were not on the park species list: the Merriam Shrew (*Sorex merriami*) and the California Vole (*Microtus californicus*).

Lava Beds National Monument

Eight species were observed from 164 captures at 3 transects. The Yellow-pine Chipmunk (*Tamias amoenus*) was the most plentiful and accounted for 52% of all captures. All eight species observed were already known to be present at the park and a voucher specimen already existed for all eight species.

Oregon Caves National Monument

Six species were observed from 269 captures at 6 transects. All five species observed during the trapping period were already known to be present at the park. The Deer Mouse (*Peromyscus maniculatus*) accounted for 49% of all captures at the monument. The Siskiyou Chipmunk was captured 100 times and accounted for 37% of all captures.

Redwood National and State Parks

Thirteen species were recorded from 165 captures at 3 transects. The Deer Mouse (*Peromyscus maniculatus*) accounted for 37% of all captures and was present in all three transects surveyed. Seven species were observed that were listed as probably present on the park's species list but were not previously documented: the Pinon Mouse (*Peromyscus trueii*), House Mouse (*Mus muscula*), Marsh Shrew (*Sorex bendirii*), Pacific Shrew (*Sorex pacificus*), Mole Shrew (*Neurtrichus gibbsii*), Creeping Vole (*Microtus oregoni*), Siskiyou Chipmunk (*Tamias siskiyou*), and Long-tailed Vole (*Microtus longicaudus*).

Whiskeytown National Recreation Area

Ten species were recorded from 426 captures at 9 transects. The Deer Mouse (*Peromyscus maniculatus*) was the most frequently captured species, comprising 70% of the recorded observations, with the Brush Mouse (*Peromyscus bolyii*) coming in next with 27% of the species observed. Three species on the park species list but not previously confirmed were observed: the Sonoma Chipmunk (*Tamias sonomae*), Allen's Chipmunk (*Tamias senex*), and Vagrant Shrew (*Sorex vagrans*).

Conclusions

This project was limited in scale. However, it did provide us with some valuable information that helped improve the accuracy of the parks species lists. Not only were we able to confirm many of the species listed on the parks species lists, we were also able to document some of the species that were listed as "probably occurring" in the park and even documented some species that were not on the park species lists. For the future, we recommend the parks complete a more intensive survey at each park which will help ensure all small mammals have been accounted for and can possibly provide more detail on habitat requirements.

More Information

For complete information, please visit the Klamath Network web page for this project at: http://science.nature.nps.gov/im/units/klmn/Inventories/Small_Mammals/Mahady_Small_Mammal_2002.cfm. Data from the project are available through the NPS Data Store at: <http://science.nature.nps.gov/nrdata/metadata.cfm?ID=48315>.



Peromyscus crinitus