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BASELINE SURVEYS FOR MAMMALS  
AT  
SAN ANDRES NATIONAL WILDLIFE REFUGE,  
NEW MEXICO

1995 Annual Report

Submitted to:

San Andres National Wildlife Refuge  
P.O. Box 756  
Las Cruces, New Mexico 88004

Prepared by:

Cynthia A. Ramotnik  
and  
Michael A. Bogan

National Biological Service  
Midcontinent Ecological Science Center  
Museum of Southwestern Biology  
The University of New Mexico  
Albuquerque, New Mexico 87131

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## Introduction

In 1995, baseline surveys for mammals on San Andres National Wildlife Refuge (SANWR) by personnel from the Midcontinent Ecological Science Center, National Biological Service (NBS), were continued in cooperation with refuge staff. Our work in 1993 and 1994 (see previous reports) confirmed the presence of 30 species from the Refuge. In 1995, four biologists from the NBS surveyed for mammals from 8-17 August.

Basic objectives of the work are to obtain current information on the relative abundance and ecological distribution of mammals from the Refuge. By revisiting previously-worked localities, we are able to monitor year-to-year variation in species diversity and relative abundance. We also visit new localities to further refine our understanding of mammal distributions on the refuge. In 1995, we continued to examine the ecological distribution of Plains Woodrats (*Neotoma micropus*) on the bajada on the eastern side of the San Andres Mountains near Ash Canyon in connection with ongoing studies of these woodrats on White Sands National Monument.

## Methods

We attempted to capture bats using mist nets set over pools of water or across flyways. Nets were set up and opened by dusk. We used Museum Special mouse traps, Victor-type rat traps, and Sherman livetraps to sample small ground-foraging rodents. We sampled medium-sized mammals (sciurids) with Havahart livetraps. Voucher specimens were saved and deposited in the NBS collections in the Museum of Southwestern Biology (MSB), University of New Mexico; tissues were saved and placed in the Frozen Tissue Collection at the MSB and blood samples (for Hantavirus) from selected specimens were sent to Center for Disease Control in Atlanta for analysis. Specimens taken as vouchers under permits issued by the New Mexico Department of Game and Fish are reported to the State by March of each year.

## Results

We spent our first two nights along the east side of the Refuge at White Sands Missile Range (WSMR) Site SW-30. This area is dominated by mesquite, but also contains yucca, saltbush, snakeweed, and cactus (*Opuntia*). Captures include Rock Pocket Mouse, Merriam's Kangaroo Rat, Northern Grasshopper Mouse, Southern Grasshopper Mouse, Cactus Mouse, White-Throated Woodrat, and Southern Plains Woodrat. This was our first capture of the Southern Grasshopper Mouse on the refuge, although they are expected to occur in this area. The mouse was captured from beneath a mesquite with a dense understory of dried grass. In this area we observed Oryx, Desert Cottontail, and Black-Tailed Jack Rabbit, and heard Coyote one evening. A Collared lizard was also observed in the area. We saw Mule Deer nearby at San Jose Spring.

We worked three nights in the vicinity of Fresno House, near Ash Canyon, a former collecting locality of ours. In 1993 and 1994 we captured four species here: Rock Pocket Mouse, Merriam's Kangaroo Rat, Cactus Mouse, and White-throated Woodrat. We added three species during our 1995 visit: Rock Squirrel, Spotted Ground Squirrel, and Southern Plains Woodrat. While (ground) squirrels are often observed before they are captured, neither of these two species was observed by us in the area during previous visits. This is the first record of a Spotted Ground Squirrel for the Refuge although the capture is not unexpected since specimens are known from Dona Ana County. We saw Desert Cottontail at Fresno House, and Black-tailed Jack Rabbit 1.4 mi east of Fresno House along the road. We salvaged a partial skeleton of Porcupine from an area just off the Refuge (3.5 mi [by road] E Fresno House). In 1993 we netted Lucero Tank, within one-half mile of Fresno House. We were unable to net this site in 1995 because it was dry; we were unable to locate any open water nearby. We observed a Rock Rattlesnake at Fresno House and captured a Greater Earless Lizard 3.5 mi E Fresno House.

In connection with studies of Plains Woodrats at White Sands National Monument, we continued to sample woodrat distributions along the eastern bajada of the San Andres Mountains at three areas to the east of Fresno House. In 1993 we took Plains Woodrats from only a single locality on the Refuge (0.8 mi ENE Fresno House). Conversely, White-throated Woodrats (*N. albigula*) are found at a variety of localities on the Refuge (and occur with Plains Woodrats on the eastern side of the Refuge near Ash Canyon and WSMR Site SW-30), and they range down the bajada almost to Range Road 7. In 1995 we captured both species at Fresno House in about equal numbers. We captured a single Plains Woodrat at 1.4 mi east, no woodrats at 1.5 mi east, and only White-throated Woodrats at 2.5 miles, and 3.5 miles east of Fresno House. Although Plains Woodrats clearly occur on the upper bajada, they appear to be less common than White-throated Woodrats on lower reaches of the bajada. In the floor of the Tularosa Basin, as at NE-30 on White Sands National Monument, Plains Woodrats appear to be the only species present.

We returned to upper Ash Canyon (near Ash Spring) where we had spent one night netting bats in 1993. Rodent captures from three nights in 1995 included Rock Squirrel, Rock Pocket Mouse, Brush Mouse, and White-throated Woodrat. Captures of Brush Mouse were the first for this trip although we have captured them in a variety of localities in 1993 and 1994. We observed Mule Deer at the junction of Salt and Ash canyons, and heard a Mountain Lion vocalizing from the bottom of Upper Ash Canyon during our last morning in the field. Mountain Lion sign (scat) was commonly found in the canyon bottom. We netted one night over a pool in the bottom of Ash Canyon but were forced to close the net early due to heavy rainfall; no bats were caught. We took vouchers of Great Plains Skink, Tree Lizard, and Chihuahuan Spotted Whiptail, and observed Rock Rattlesnake and Patch-nosed Snake (*Salvadora* sp.) in the vicinity of upper Ash Canyon.

\*  $\downarrow$  *Crotalus lepidus klauberi* (Banded rock rattlesnake)

#### Comments and Summary

In 1995, we confirmed two new species for the mammal fauna of SANWR: Spotted Ground Squirrel and Southern Grasshopper Mouse. A third species, Porcupine, was salvaged from just off the Refuge. In general, trap success was low. We attribute this to overall dry conditions in the summer of 1995, although rainfall was intense at times during our visit. No bats were captured, again partly a function of absence of free water and local weather conditions. Moonlight also may have depressed captures of bats.

Plans are underway, in cooperation with White Sands Missile Range (WSMR), to continue work in 1996 at sites elsewhere in the San Andres Mountains. This work will emphasize bats and will be conducted with personnel from WSMR and SANWR.

1995 Capture Summary for  
San Andres National Wildlife Refuge (SANWR)

MAMMALS

New Mexico: Dona Ana Co., SANWR,  
1 mi W (by rd) WSMR Site SW-30 8 August 1995

1 Onychomys leucogaster  
2 Neotoma micropus  
3

New Mexico: Dona Ana Co., SANWR, WSMR Site SW-30  
on Wanda Road 8-9 August 1995

2 Chaetodipus intermedius  
1 Dipodomys merriami  
4 Peromyscus eremicus  
1 Onychomys torridus (watch list)  
1 Neotoma albigula  
1 N. micropus  
10

New Mexico: Dona Ana Co., SANWR, Fresno House,  
near Ash Canyon 10-12 August 1995

1 Spermophilus spilosoma  
1 S. variegatus  
11 Chaetodipus intermedius  
1 Peromyscus eremicus  
4 Neotoma albigula  
3 N. micropus  
21

New Mexico: Dona Ana Co., SANWR, San Andres Mts.,  
1.4 mi (by rd) E Fresno House 12 August 1995

1 Chaetodipus intermedius  
1 Dipodomys merriami  
1 Neotoma micropus  
3

New Mexico: Dona Ana Co., SANWR, San Andres Mts.,  
1.5 mi (by rd) E Fresno House 12 August 1995

1 Dipodomys merriami

**New Mexico: Dona Ana Co., SANWR, San Andres Mts.,  
2.5 mi (by rd) E Fresno House**

**12 August 1995**

2	Chaetodipus intermedius
1	Dipodomys merriami
1	Peromyscus eremicus
<u>5</u>	Neotoma albigula
9	

**New Mexico: Dona Ana Co., San Andres Mts.,  
3.5 mi (by rd) E Fresno House**

**12 August 1995**

1	Chaetodipus intermedius
6	Neotoma albigula
<u>1</u>	Erethizon dorsatum (salvage)
8	

**New Mexico: Dona Ana Co., SANWR, Ash Canyon,  
near Ash Spring**

**15-17 August 1995**

1	Spermophilus variegatus
5	Chaetodipus intermedius
3	Peromyscus boylii
<u>2</u>	Neotoma albigula
11	

**New Mexico: Dona Ana Co., SANWR, Salt Canyon at  
Sap Nicholas Camp rd intersection**

**17 August 1995**

2	Peromyscus boylii
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1995 Capture Summary for  
San Andres National Wildlife Refuge (SANWR)

AMPHIBIANS & REPTILES

New Mexico: Dona Ana Co., San Andres Mts.,  
3.5 mi (by rd) E Fresno House 12 August 1995

1 Cophosaurus texanus

New Mexico: Dona Ana Co., SANWR 15 August 1995

1 Cnemidophorus cf. exsanguis

New Mexico: Dona Ana Co., SANWR, Ash Canyon,  
near Ash Spring 17 August 1995

1 Cnemidophorus cf. exsanguis

1 Urosaurus ornatus

1 Eumeces obsoletus