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

1994 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

During 1994 we made two trips to San Andres National Wildlife Refuge (SANWR) to continue baseline surveys for mammals. This was our second year of surveys on the refuge. Our first trip in 1993 confirmed the presence of 27 species, 14 of which were not previously documented from the refuge. These totals for 1993 included several species of bats newly confirmed for the refuge and reported in Bogan (1994). In 1994, up to three biologists from the Midcontinent Ecological Science Center, National Biological Service (NBS), participated in two trips to continue these studies. The dates of the trips were 14-26 April and 24-30 October. In 1993 direct costs were shared between NBS and FWS; in 1994 all direct costs were covered by NBS. We appreciate the assistance of Steve Berendzen and Mara Weisenberger at the refuge.

The primary objective of the surveys is to document the occurrence of as many species of mammals as possible and obtain information on their relative abundance and ecological distribution. Unlike many refuges, SANWR has benefited from previous studies (e.g., Halloran, 1946; Conley, 1990) but little work has been conducted on small mammals. We concentrate on small mammals, primarily rodents and bats, and prepare voucher specimens to document species occurrence and provide material for taxonomic comparisons. During our time on the refuge, we divide our time and efforts among visiting new localities and revisiting previously-worked localities to monitor year-to-year variation in species occurrence and relative abundance. We record data in field journals and make opportunistic observations of all mammals. In addition, we make opportunistic observations and collections of amphibians and reptiles.

Methods

We captured bats using mist nets set over pools of water or across flyways. Nets were set up and opened by dusk and tended till about midnight. Most bats were captured and released unharmed; we saved voucher specimens of new species or localities. Most small ground-foraging rodents were sampled with snap traps (Museum Specials and Victor-type rat traps) and Sherman live-traps. Medium-sized mammals (i.e., squirrels) were collected with firearms; sightings of larger mammals or their sign were recorded. Voucher specimens were saved and deposited in the NBS collections in the Museum of Southwestern Biology, University of New Mexico; tissues and blood samples (for Hantavirus) from selected specimens also were saved for future analysis. Voucher specimens are taken under a permit issued by the New Mexico Department of Game and Fish.

Results

We worked out of three camps in April. Our first camp was in San Andres Canyon as approached from the east. Here we took Rock Pocket Mouse, Merriam's Kangaroo Rat, White-throated Woodrat, and Cactus and Brush Mouse. Near Dugout Spring we also took Ord's Kangaroo Rat. We netted one night over several pools in San Andres Canyon and captured over 70 bats of seven species (California Myotis, Long-legged Myotis, Silver-haired Bat, Western Pipistrelle, Big Brown Bat, Pallid Bat, and Mexican Free-tailed Bat). Captures of the Silver-haired Bat were the first for the Refuge. We worked next at San Nicholas Camp where trap success was low, similar to when we worked here in June 1993. We took only three species, Rock Pocket Mouse, White-throated Woodrat, and Brush Mouse. Ropes Spring was the site of our final camp. Species abundance and diversity were higher here than at the first two sites, perhaps due in part to somewhat greater overall habitat diversity, at least as sampled by our methods. Here we took our first records of Desert Shrew and Western Harvest Mouse. The shrew was not unexpected but its capture from within a quonset hut was somewhat surprising. We also captured the Rock Pocket Mouse, White-throated Woodrat, Brush Mouse, and Hispid Cotton Rat. An old record of the Pinon Mouse exists from Ropes Spring. While we have not examined this specimen, we made a special effort to look for this species but were unable to confirm its presence. We netted one

1994 Capture Summary for
San Andres National Wildlife Refuge (SANWR)

MAMMALS

New Mexico: Dona Ana Co., SANWR, San Andres Canyon
0.75 mi ENE San Andres Spring

15-16, 18 April 1994

- 3 *Lasionycteris noctivagans*
- 1 *Myotis californicus*
- Eo# .010 - 1 *Myotis volans*
- 1 *Pipistrellus hesperus*
- .041 - 1 *Tadarida brasiliensis* * watchlist Eo 5232, SF 6030
- 1 *Antrozous pallidus*
- 15 *Chaetodipus intermedius*
- 2 *Dipodomys merriami*
- 2 *Neotoma albigula*
- 3 *Peromyscus boylii*
- 2 *Peromyscus eremicus*
- 32

New Mexico: Dona Ana Co., SANWR, 0.7 mi NNW Dugout Spring

18 April 1994

- 4 *Chaetodipus intermedius*
- 2 *Dipodomys ordii*
- 3 *Peromyscus boylii*
- 9

New Mexico: Dona Ana Co., SANWR, San Nicholas Camp

19-20 April 1994

- 1 *Chaetodipus intermedius*
- 3 *Neotoma albigula*
- 3 *Peromyscus boylii*
- 7

New Mexico: Dona Ana Co., SANWR,
0.7 mi (by rd) S San Nicholas Camp

22 April 1994

- 4 *Peromyscus boylii*

New Mexico: Dona Ana Co., SANWR, Ropes Spring

23-25 April 1994
26-27 Oct 1994

1 Notiosorex crawfordi
 1 Eptesicus fuscus
 2 Myotis californicus
 .011 - 1 Myotis volans
 1 Pipistrellus hesperus
 1 Plecotus townsendii
 .012 - 1 Tadarida brasiliensis
 1 Thomomys bottae
 8 Chaetodipus intermedius
 1 Dipodomys merriami
 4 Dipodomys ordii
 1 Onychomys leucogaster
 33 Peromyscus boylii
 3 Neotoma albigula
 2 Reithrodontomys megalotis
1 Sigmodon hispidus
 62

New Mexico: Dona Ana Co., SANWR, Lead Camp Canyon
vic. Lead Camp Spring

24-25 Oct 1994

5 Chaetodipus intermedius
 7 Dipodomys merriami
 1 Dipodomys ordii
 4 Neotoma albigula
5 Peromyscus boylii
 22

New Mexico: Dona Ana Co., SANWR, E slope Goat Mountain

28-29 Oct 1994

3 Thomomys bottae
 1 Spermophilus variegatus
10 Peromyscus boylii
 14

New Mexico: Dona Ana Co., SANWR, Fresno House,
near Ash Canyon

30 Oct 1994

2 Dipodomys merriami
 3 Neotoma albigula
1 Peromyscus eremicus
 6

1994 Capture Summary for
San Andres National Wildlife Refuge (SANWR)

BIRDS

New Mexico: Dona Ana Co., SANWR, San Nicholas Camp

20 April 1994

1 Pipilo chlorurus
1 Pipilo erythrophthalmus
1 Pipilo fuscus
3

New Mexico: Dona Ana Co., SANWR, E slope Goat Mountain

29 Oct 1994

1 Catharus guttatus

1994 Capture Summary for
San Andres National Wildlife Refuge (SANWR)

AMPHIBIANS & REPTILES

New Mexico: Dona Ana Co., SANWR, San Andres Canyon, 0.75 mi ENE San Andres Spring	15 Apr 1994
1 <i>Cophisaurus texanus</i>	
New Mexico: Dona Ana Co., SANWR, San Andres Canyon, ca. 0.2 mi E San Andres Spring	16 Apr 1994
1 <i>Pituophis catenifer</i>	
New Mexico: Dona Ana Co., SANWR, San Andres Canyon, 0.1 mi W Refuge boundary	17 Apr 1994
1 <i>Phrynosoma modestum</i>	
New Mexico: Dona Ana Co., SANWR, Salt Canyon, 0.3 mi S jct Ash Canyon	19 Apr 1994
1 <i>Crotalus molossus</i>	
New Mexico: Dona Ana Co., SANWR, San Nicholas Camp	22 Apr 1994
1 <i>Cnemidophorus neomexicanus</i>	
New Mexico: Dona Ana Co., SANWR, Ropes Spring	23-24 Apr 1994
2 <i>Urosaurus ornatus</i>	
New Mexico: Dona Ana Co., White Sands Missile Range, 2 mi W jct RR7 & "Connie" rd along "Connie" rd	15 Apr 1994
1 <i>Cophisaurus texanus</i>	
New Mexico: Dona Ana Co., White Sands Missile Range, along RR 7, 2.8 mi N guard gate	15 Apr 1994
1 <i>Masticophis taeniatus</i>	