

A SMALL MAMMAL SURVEY OF
NATURAL BRIDGES NATIONAL MONUMENT, UTAH



Department of Wildlife Science
Utah State University
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Final Report

MAMMALS OF NATURAL BRIDGES NATIONAL MONUMENT, UTAH

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INTRODUCTION

Until the present time, a list of the mammals of Natural Bridges National Monument was not documented or compiled. This is not to say that visitors and National Park Service personnel have not observed mammals in this area. Because of the lack of documentation of the mammals of this area, the National Park Service Research Unit at Utah State University funded this initial study.

The study discussed in this report was carried out during the summer of 1976. All mammals collected were captured in live traps so they could be released in their home ranges.

Kelson (1951), Durrant (1952), and Sparks (1974) dealt with the distribution of mammals in this general area. However, because the information reported in their publications was based only on collections made outside the Monument, the actual reference to the Monument was supposition.

Information on animals from this area is useful for management purposes as well as for educational purposes for visitors.

OBJECTIVES

1. To survey the mammals within Natural Bridges National Monument and to develop a checklist of mammals for this area.
2. To identify general habitat types within the Monument and relate these habitat types to mammal distribution.

DESCRIPTION OF THE AREA

Natural Bridges National Monument is southwest of the Abajo Mountains in Utah (Figure 1). These mountains reach an elevation of 11,000 feet. Specifically, the Monument is located on the western edge of Elk Ridge, an area which reaches 8,000 feet in elevation. The elevation at the Monument is about 6,000 to 6,500 feet. It is characterized by deep box canyons ranging in depth from 200 to 500 feet. Sheer cliffs, overhanging ledges, and natural bridges are common. The White River and its tributary canyons drain this area. In turn, the White River is tributary to Lake Powell (to the northwest).

The area is characterized by a Mesa top with a semiarid climate. Sandstone bedrock covered primarily with thin, sandy soils are the primary ground materials. Some of the plants of the area are on mounds of sand up to 10 inches or more in height, which indicates erosion from water and wind in adjacent areas. A major geologic feature of the Monument is the cedar mesa sandstone which occurs as a layer 400 to 1,000 feet thick throughout the southwestern corner of Utah.

The primary vegetation type consists of a pygmy-conifer forest dominated by Utah juniper and pinyon pine. The talus slopes of the mesophytic communities are characterized by broad-leafed shrubs. The rimrock community occurs in a narrow band of variable width around the canyon margins and is dominated by a pygmy-conifer forest. The most conspicuous plants of the stream bed area are the poplars, gambel

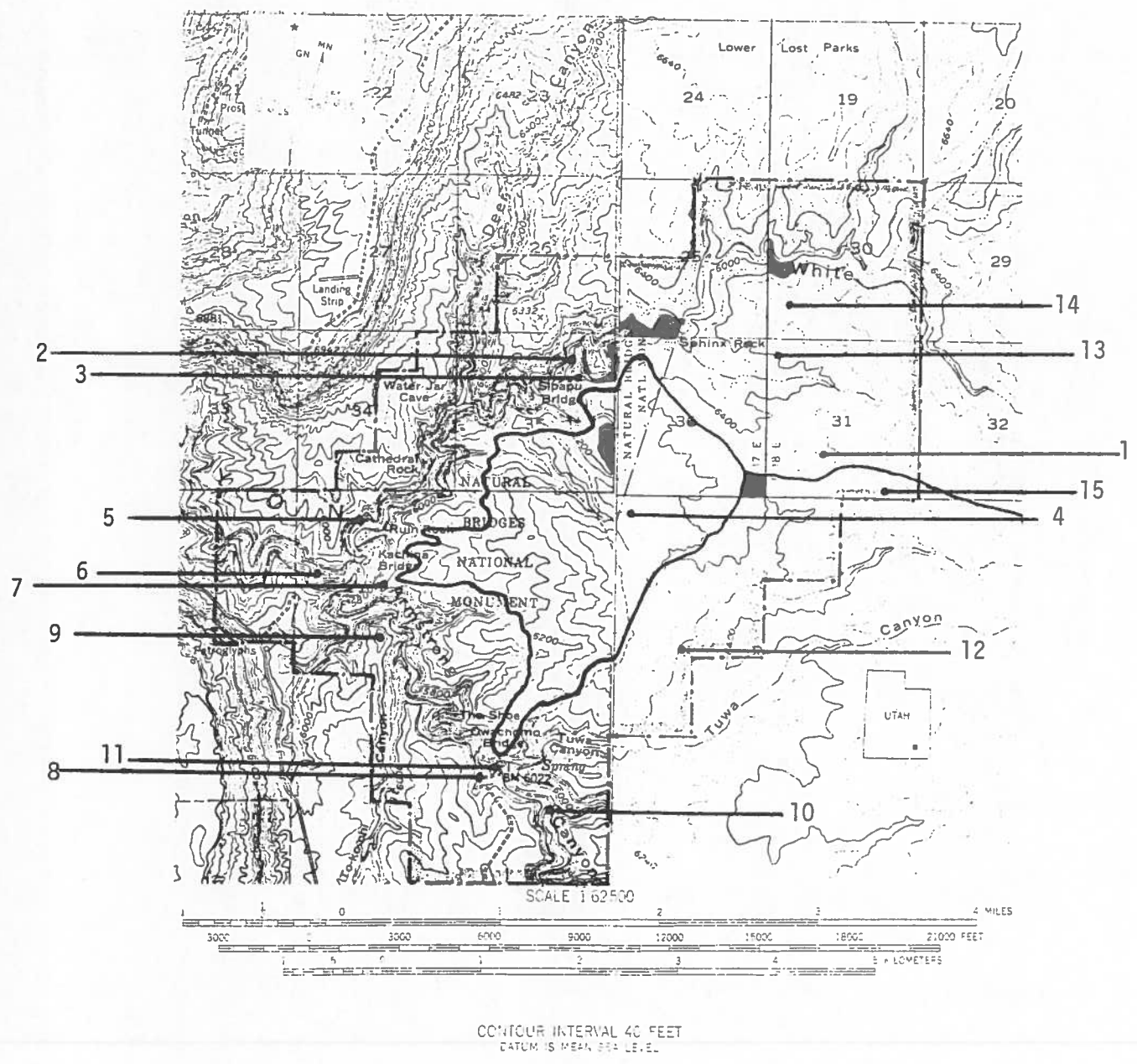


Figure 1. Map of Natural Bridges National Monument, Utah. Numbers 1 through 15 represent trapping sites within the Monument. Mammal collections and observations at each of these sites are presented in the Appendix.

oak, and wavyleaf oak. A checklist of the major plants of the study areas is presented in the Appendix.

The climate of the region is semiarid. The average annual precipitation is between 12 and 15 inches. Snow is present during most of the winter months. The summer rains drain off rapidly and erode more of the limited sandy topsoil. Sometimes these rains reach flood proportions only to drain away and leave the stream beds dry for most of the year.

In this high desert area, the days are hot and the nights are cool. A fluctuation of 50° (F) during a 24-hour period is not uncommon.

The prevailing winds are from the southwest and consist mainly of steady diurnal breezes.

A more detailed example of climatological data for this area is presented in the Appendix.

STUDY AREAS

For the purposes of this study, the Monument area was divided into four major types. Each one of these habitats had its own unique plants and topography which could possibly influence the species of mammals living in that area. The common plants of each of these areas is presented below.

Mesa top forest: The pinyon pine and Utah juniper are the principal indicator plants of this area. Other common plants of this area include sagebrush, silver buffalo berry, rabbitbrush, and indian paintbrush.

Rimrock area: Pinyon pine and Utah juniper are found in this area, although the trees grow further apart due to less water available here. Dwarf mountain mahogany, single-leaf ash, manzanita, snakeweed, rock goldenrod, and greasewood plants are also common in this area.

Talus slopes: Shrubs such as Utah service berry, alder-leaved mahogany, and silver buffalo berry are common on the slopes between the canyon rims and stream terraces. Douglas fir, ponderosa pine, manzanita, service berry, mormon tea, and single leaf ash are also found here.

Streambed areas: Poplars, gambel oak, wavyleaf oak, box elder trees, willow, single-leaf ash, and sagebrush are the most conspicuous plants adjacent to the streambeds.

METHODS

Live trapping and observations of the mammals of Natural Bridges National Monument, Utah, was conducted during the summer of 1976.

All trapping was accomplished with the use of "Sherman" small mammal traps (8 x 9 x 23 cm), "National" folding traps (17 x 18 x 48 cm), or "Havahart" traps (17 x 18 x 48 cm).

The traps were baited with oatmeal, peanut butter, and apples. All traps were baited in the evening and the traps were checked for animals the next morning. Any mammals captured during this period were recorded and released. The traps which were closed were rebaited and left out in open position until noon. Traps were not operated during the afternoon hours because of extreme heat. All of the traps were carried with a back pack into the various sampling areas.

Sampling with live traps was conducted in 15 different locations within the Monument. The sampling effort was similar in each area with 270 trap nights in each of 10 areas and 360 trap nights at each of the 5 remaining areas.

A spotlight was used at night during the study in an attempt to increase the number of large animal sightings.

RESULTS

During the summer of 1976, a total of 50 nights were spent trapping. A total of 3,500 trap nights (a trap night = one trap set for one night) were completed with the "Sherman" traps. The "National" traps accounted for another 1,000 trap nights, and the "Havahart" traps accounted for 128 trap nights. A total of 4,628 trap nights resulted in a total capture of 292 mammals.

Because the principal objective of the study was to develop a checklist of mammals from the area rather than to determine mammal population densities by area sampled, traps were not placed "randomly." Instead, they were placed in areas which seemed to be the best location for mammal captures (i.e. close to cover, trails, or food). Even so, an attempt was made to sample all habitats within the Monument.

A summary of the mammals captured or observed during this period is found in Table 1. Identification of mammals was accomplished with "keys" from Durrant (1952), Burt et al. (1964), or with the assistance of Dr. Emily C. Oaks, mammalogist, Utah State University.

Table 2 is a checklist of mammals of Natural Bridges National Monument based on the trapping results of this study and probable occurrence based on Durrant (1952), Kelson (1951), and Sparks (1974).

Table 1. Summary of observations and live captures of mammals in Natural Bridges National Monument, Utah (1976).

Scientific name	Common name	Number captured in live traps	Number observed
<u>Lepus californicus</u>	black-tailed woodrat ^{JACK RABBIT}	--	12
<u>Sylvilagus audubonii</u>	desert cottontail	4	25
<u>Spermophilus leucurus</u>	antelope ground squirrel	--	1
<u>Spermophilus variegatus</u>	rock squirrel	31	--
<u>Eutamias minimus</u>	least chipmunk	63	--
<u>Eutamias quadrivittatus</u>	Colorado chipmunk	37	--
<u>Dipodomys ordii</u>	Ord kanagaroo rat	3	--
<u>Peromyscus crinitus</u>	canyon mouse	3	--
<u>Peromyscus maniculatus</u>	white-footed deer mouse	62	--
<u>Peromyscus boylii</u>	brush mouse	10	--
<u>Peromyscus truei</u>	pinon mouse	47	--
<u>Peromyscus sp.</u>	deer mice (unidentified)	--	18
<u>Neotoma albigula</u>	white-throated woodrat	3	--
<u>Neotoma mexicana</u>	Mexican woodrat	20	2
<u>Neotoma cinerea</u>	bushy-tailed woodrat	4	--
<u>Erethizon dorsatum</u>	porcupine	--	1 + sign
<u>Canis latrans</u>	coyote	--	1 + sign
<u>Vulpes fulva</u>	red fox	--	sign
<u>Taxidea taxus</u>	badger	--	sign
<u>Mephitis mephitis</u>	striped skunk	4	--
<u>Spilogale putorius</u>	spotted skunk	1	--
<u>Lynx rufus</u>	bobcat	--	sign
<u>Felis concolor</u>	mountain lion	--	sign
<u>Odocoileus hemionus</u>	mule deer	--	1 + signs
Total captured		292	

Table 2. A checklist of mammals of Natural Bridges National Monument, Utah (1976). Species are listed as follows: (D) species collected or signs observed during trapping study; (C) common; (U) uncommon; (R) or rare (determined by trapping success and daily observations). General habitat types are listed as I, mesa top forest; II, rimrock community; III, talus slopes; and IV, stream beds. Species of probable occurrence are marked with an asterisk (*).

Species	Data	Species	Data
<u>Myotis</u> sp.	*	<u>Peromyscus boylii</u>	D, U, I, II, III, IV
<u>Lasionycteris noctivagans</u>	*	<u>Peromyscus truei</u>	D, C, I, II, III, IV
<u>Pipistrellus hesperus</u>	*	<u>Onychomys leucogaster</u>	*
<u>Eptesicus fuscus</u>	*	<u>Neotoma albigula</u>	DU
<u>Lasiurus</u> sp.	*	<u>Neotoma mexicana</u>	D, C, I, II, III, IV
<u>Corynorhinus rafinesquii</u>	*	<u>Neotoma cinerea</u>	DU
<u>Antrozous pallidus</u>	*	<u>Erethozon dorsatum</u>	DU
<u>Tadarida</u> sp.	*	<u>Canis latrans</u>	DC
<u>Sorex</u> sp.	*	<u>Vulpes fulva</u>	DU
<u>Lepus californicus</u>	D, C, I, II	<u>Urocyon cinereoargenteus</u>	*
<u>Sylvilagus auduboni</u>	D, C, I, II	<u>Bassariscus astutus</u>	*
<u>Spermophilus leucurus</u>	D, U	<u>Mustela frenata</u>	*
<u>Spermophilus variegatus</u>	D, C, II, III, IV	<u>Taxidea taxus</u>	DU
<u>Eutamias minimus</u>	D, C, I, II, III, IV	<u>Mephitis mephitis</u>	D, U, III, IV
<u>Eutamias quadrivittatus</u>	D, C, I, II, III, IV	<u>Spilogale putorius</u>	D, U, III, IV
<u>Perognathus</u> sp.	*	<u>Lynx rufus</u>	DR
<u>Dipodomys ordii</u>	DU	<u>Felis concolor</u>	D, U, I, II, III, IV
<u>Reithrodontomys megalotis</u>	*	<u>Odocoileus hemionus</u>	DC
<u>Peromyscus crinitus</u>	DU	<u>Ovis canadensis</u>	*
<u>Peromyscus maniculatus</u>	D, C, I, II, III, IV		

DISCUSSION

As many varied habitats as physically possible were sampled in an effort to compile as valid a checklist as possible. Each habitat sampled was a portion of the four larger general habitat types presented. For discussion, they are referred to as: community I, mesa top forest; community II, rimrock community; community III, talus slopes; and community IV, stream beds. Communities I and IV were each sampled 5 times; community II, three times; and community III, twice.

The distribution of the mammals throughout these communities was developed directly from the trapping results. All four species of white-footed mice were captured throughout the four communities, except for the canyon mouse, which had such little trapping success that it would be difficult to discern its true distribution. The mexican woodrat was captured frequently enough to determine that it too is found in all four communities. The same can be said of the Colorado and least chipmunk. The rock squirrel was conspicuously absent from the mesa top, yet was captured frequently in the three other communities. The small number of skunks which were captured occurred only in communities III and IV. Visual sightings and tracks led this researcher to assume that mule deer are to be found roaming throughout the Monument, but with a preference for the canyon bottoms. The desert cottontail and black-tailed jackrabbit were sighted with remarkable frequency, yet never below the extent of community II.

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APPENDIXES

Appendixes

Mammal collections and observations made in Natural Bridges National Monument.

- Table 3. Mammal trapping site locations and elevations within Natural Bridges National Monument, Utah.
- Table 4. Summary of mammals captured in live traps in Natural Bridges National Monument, Utah, in 1976.
- Table 5. Summary of daily live trapping in Natural Bridges National Monument, Utah, in 1976.
- Table 6. Common plants of Natural Bridges National Monument, Utah.
- Table 7. Summary of spotlight sightings of mammals in Natural Bridges National Monument, Utah, in 1976.
- Table 8. Precipitation and temperature information for Natural Bridges National Monument. Data taken from Climatological Data, Utah, Volume 77, 1975.

MAMMAL COLLECTIONS AND OBSERVATIONS MADE
IN NATURAL BRIDGES NATIONAL MONUMENT

The following is a synopsis of mammalian specimens captured during the trapping period July 27 through September 23, 1976, at Natural Bridges National Monument.

The various sites sampled are presented below:

Site 1. Approximately 1/2 mile behind visitor center, Sec. 31, T36S, R18E, 6480 feet.

The habitat was located on the mesa top and was characterized by Utah juniper and piñon pine. Also present were large amounts of sagebrush, rabbitbrush, silver buffaloberry, and some grasses. There was no water source nearby and few areas of exposed rock. Community type I.

Mammals captured after 3 days (270 trap nights)

Deer mice 4

Piñon mice 2

Colorado chipmunks 5

Site 2. Approximately 1/4 mile from Sipapu Bridge up White Canyon.

A west facing habitat located along streambed of canyon bottom characterized by a dense community of cottonwoods, with the outer areas characterized by young sprouts of boxelder and willows. Under the cottonwoods there was an abundant community of sagebrush. An excellent source of water was nearby, with water actually running along the canyon floor due to a large storm occurring on the second night of trapping. Community type IV.

Mammals captured after 3 days (270 trap nights)

Deer mice 13

Rock squirrels 4
 Mexican woodrats 3
 White-throated woodrats 1

Site 3. Directly below the Sipapu Bridge trail.

A west facing habitat located along a ledge or talus slope characterized by a small stand of ponderosa pine and douglas fir. Occurring throughout the site were many types of broad-leaved shrubs such as: Utah serviceberry, silver buffaloberry, and alder-leaved mahogany. There also were a few areas dominated by mormon tea and manzanita. There was no water source nearby, and the general area was strewn with rock falls. Community type III.

Mammals captured after 4 days (360 trap nights)

Deer mice 1
 Brush mice 4
 Canyon mice 1
 Least chipmunks 12
 Colorado chipmunks 15
 Rock squirrels 14
 Mexican woodrats 3
 Bushy-tailed woodrats 3
 Striped skunks 2

Site 4. Approximately 1/2 mile from the intersection of the overland trails.

Habitat similar to general description of Site 1. Total of two mammals caught in four days. Community type I.

Mammals captured after 2 days (180 trap nights)

No captures

Traps redistributed throughout area

Mammals captured in next 2 days (180 trap nights)

Piñon mice 2

Site 5. Approximately 1/2 mile from Kachina up White Canyon.

An east facing habitat located along a terrace near the canyon bottom characterized by a dense growth of gambel oak and faced by a stand of single-leaf ash adjacent to the stream bed proper. There was a variety of plants interspersed with the oaks such as: Utah serviceberry, prickly pear cactus, squawbush, and datil yucca. There was a good source of water nearby and there were rock falls throughout the site. Community type IV.

Mammals captured after 3 days (270 trap nights)

Piñon mice 7

Canyon mice 2

Brush mice 1

Rock squirrels 4

Striped skunk 2

Spotted skunk 1

Site 6. Approximately 1/2 mile from Kachina Bridge down White Canyon.

A south facing habitat located along a stream bed of canyon bottom. A somewhat unusual terrace community with a large pasture-like area (dominated by indian rice grass) in front of the characteristic community of gambel oak. Several Utah junipers were growing in the pasture-like area along with large, dense stands of mormon tea, sagebrush, and prickly pear cactus. The area was apparently used extensively as a bedding ground for mule deer due to several large areas of matted vegetation. There was a source of water nearby. Community type IV.

Mammals captured after 3 days (540 trap nights)

Deer mice 5

Brush mice 2

Mexican woodrats 4

Rock squirrels 1

Site 7. Approximately 1/4 mile from Kachina Bridge down Armstrong Canyon.

A north facing habitat located along a ledge (or rimrock community) characterized by sparse stands of Utah juniper and Piñon

pine. Snakeweed, manzanita, and dwarf mountain mahogany were present throughout the area. The overall area was somewhat dry and barren. Community type II.

Mammals captured after 3 days (540 trap nights)

Piñon mice 5

Rock squirrels 3

Mexican woodrats 1

Kangaroo rats 1

Site 8. Located on opposite rim about 1/4 mile from old Ranger Station.

Habitat located in Mesa top forest, adjacent to a south facing rim. A large stand of grass was extremely matted due to an old bedding ground for mule deer. The area was conspicuously marked by dens and burrows of small rodents. Community type I.

Mammals captured after 3 days (540 trap nights)

Deer mice 6

Piñon mice 5

Kangaroo rats 4

Least chipmunks 9

Site 9. Located on the opposite rim about 2 miles around on the rim from the old Ranger station, a high ridge between the emergence of To-ko-chi Canyon into Armstrong Canyon.

Habitat located behind a large expanse of bare rock which shifts into a sparse stand of Piñon pine and Utah juniper. No water is available in the area. Also, it is extremely barren, rocky, and high (altitude) for the general overlay of the land. Community type II.

Mammals captured after 3 days (540 trap nights)

Deer mice 3

Piñon mice 2

Colorado chipmunks 3

Site 10. Located down in Canyon floor up Tuwa 1/2 mile from Owachomo Bridge in a south facing stand of cottonwoods.

Habitat in a large stand of old cottonwoods with a dense under-cover of sagebrush. The area had extensive deer trails throughout. Water present all along face of trap site. Community type IV.

Mammals captured after 4 days (720 trap nights)

Deer mice 7

Brush mice 1

Least chipmunk 8

White-throated woodrat 2

Sighted a rock squirrel in the area.

Site 11. Up Armstrong Canyon 1/4 mile from Owachomo Bridge.

Habitat located at base of a cliff with the traps being placed on north and south facing slopes. A large stand of cottonwoods dominated the stream bed and a large seep provided a source of water. The slopes were dotted with characteristic broad-leaved shrubs. Community type III.

Mammals captured after 3 days (270 trap nights)

Deer mice 19

Colorado chipmunks 10

Least chipmunks 6

Rock squirrels 1

Piñon mice 1

Mexican woodrats 4

Site 12. Located at end of Service Road.

An east facing habitat located along a cliff's edge. Sparse stands of pinon pine and Utah juniper occurred throughout the area. Several traps were placed in and among a set of indian ruins. The area was extremely rocky and water was not present. Community type II.

Mammals captured after 3 days (270 trap nights)

Piñon mice 9

Brush mice 1

Least chipmunk 2

Mexican woodrat 2

Site 13. Located 2 miles behind visitor center at the edge of White Canyon.

The habitat was located on the mesa top with Utah juniper and piñon pine dominating the landscape. A large amount of fallen or standing dead trees were present. There was no source of water nearby. Community type I.

Mammals captured after 3 days (270 trap nights)

Deer mice 3

Mexican woodrat 2

Least chipmunk 14

Site 14. Stream bed leading into White Canyon.

An unusual habitat in that the stream bed cut directly through the mesa top with no intermediate communities. Cottonwoods dotted the stream bed and yet only a few yards away, the banks were lined with stands of Utah juniper and piñon pines. There was no water nearby. Community type IV.

Mammals captured after 4 days (360 trap nights)

Deer mice 1

Piñon mice 6

Colorado chipmunk 3

Least chipmunk 14

Site 15. On mesa top near Maverick Point.

Habitat similar to general description of Site 1. Community type I.

Mammals captured after 4 days (360 trap nights)

Piñon mice 6

Brush mice 1

Colorado chipmunk 1

Least chipmunk 3

Mexican woodrat 1

Table 3. Mammal trapping site locations and elevations within Natural Bridges National Monument, Utah.

Site 1	Sec. 31, T. 36 S, R. 18 E, 6480 ft.
Site 2	Sec. 35, T. 36 S, R. 17 E, 6000 ft.
Site 3	Sec. 35, T. 36 S, R. 17 E, 6100 ft.
Site 4	Sec. 2, T. 37 S, R. 17 E, 6400 ft.
Site 5	Sec. 3, T. 37 S, R. 17 E, 5800 ft.
Site 6	Sec. 3, T. 37 S, R. 17 E, 5700 ft.
Site 7	Sec. 3, T. 37 S, R. 17 E, 6000 ft.
Site 8	Sec. 11, T. 37 S, R. 17 E, 6050 ft.
Site 9	Sec. 10, T. 37 S, R. 17 E, 6200 ft.
Site 10	Sec. 11, T. 37 S, R. 17 E, 6000 ft.
Site 11	Sec. 11, T. 37 S, R. 17 E, 6000 ft.
Site 12	Sec. 1, T. 37 S, R. 18 E, 6200 ft.
Site 13	Sec. 30, T. 36 S, R. 18 E, 6400 ft.
Site 14	Sec. 31, T. 36 S, R. 18 E, 6500 ft.
Site 15	Sec. 32, T. 36 S, R. 18 E, 6500 ft.

Table 4. Summary of mammals captured in live traps in Natural Bridges National Monument, Utah, in 1976.

Mammal	Number captured
Deer mice	62
Piñon mice	48
Brush mice	10
Canyon mice	3
Mexican woodrat	20
White-throated woodrat	3
Bushy-tailed woodrat	4
Rock squirrel	31
Least chipmunk	68
Colorado chipmunk	37
Striped skunk	4
Spotted skunk	1
Ord's kangaroo rat	5
Audubon cottontail	1
TOTAL	298

Table 5. Summary of daily live trapping in Natural Bridges National Monument, Utah, in 1976.

Date	Livetrapping type		
	Sherman	National	Havahart
27 July	70	20	
28	70	20	
29	70	20	
30	70	20	
31	70	20	
1 August	70	20	
2	70	20	
3	70	20	
4	70	20	
5	70	20	
6	70	20	
7	70	20	
8	70	20	
9	70	20	
10	70	20	
13	70	20	
14	70	20	
15	70	20	
19	70	20	
20	70	20	
21	70	20	
22	70	20	
23	70	20	
24	70	20	
25	70	20	4
27	70	20	4
28	70	20	4
29	70	20	4
30	70	20	4
31	70	20	4
1 September	70	20	4
2	70	20	4
3	70	20	4
4	70	20	4
5	70	20	4
6	70	20	4
7	70	20	4
8	70	20	4
9	70	20	4
11	70	20	4
12	70	20	4
13	70	20	4
14	70	20	4

Table 5. Continued

Date	Livetrapping type		
	Sherman	National	Havahart
15	70	20	4
16	70	20	4
17	70	20	4
18	70	20	4
19	70	20	4
20	70	20	4
21	70	20	4
22	70	20	4
23	70	20	4
Total	3500	1000	128

Table 6. Common plants of Natural Bridges National Monument, Utah.

Common Name	Scientific Name
piñon pine	<u>Pinus edulis</u>
curl-leaf mountain mahogany	<u>Cercocarpus ledifolius</u>
birch-leaf mountain mahogany	<u>Cercocarpus montanus</u>
rubber rabbitbrush	<u>Chrysothamnus nauseosus</u>
Utah juniper	<u>Juniperus osteosperma utahensis</u>
broom snakeweed	<u>Xanthocephalum</u>
gambel oak, scrub oak	<u>Quercus gambelii</u>
wavyleaf oak	<u>Quercus undulata</u>
cliff columbine	<u>Aquilegia triternata</u>
service berry	<u>Amelanchier utahensis</u>
Douglas fir	<u>Pseudotsuga menziesii taxifolia</u>
datil yucca	<u>Yucca baccata</u>
Engelmann prickly-pear cactus	<u>Opuntia engelmannii</u>
western yellow pine	<u>Pinus ponderosa</u>
big sagebrush	<u>Artemisia tridentata</u>
roundleaf buffalo berry	<u>Shypherdia rotundifolia</u>
indian paintbrush	<u>Castilleja sp.</u>
singleleaf ash	<u>Fraxinus anomola</u>
manzanita	<u>Arctostaphylos sp.</u>
goldenrod	<u>Solidago petradoria</u>
mormon tea	<u>Ephedra viridis</u>
skunkbrush	<u>Rhus trilobata</u>
pale wolfberry, matrimony vine	<u>Lycium pallidom</u>
narrow-leaf cottonwoods	<u>Populus angustifolia</u>
willow	<u>Salix sp.</u>
boxelder	<u>Acer negundol</u>
death camas	<u>Zigadenus sp.</u>
rush	<u>Juncus drummondii</u>
swertia	<u>Swertia sp.</u>
thistle	<u>Cirsium sp.</u>
western virgins bower	<u>Clematis ligusticifolia</u>
greasewood	<u>Sarcobatus vermiculatus</u>

Table 7. Summary of spotlight sightings of mammals in Natural Bridges National Monument, Utah, in 1976.

Mammal	Date of sighting	Number sighted
Desert cottontail	September 6-9, 12, 13, 17, 18-22	25
Black-tailed jackrabbit	September 6-9, 11, 13, 17, 19	12
Unidentified mice	September 6-22	18
Mexican woodrat	September 11, 18	2
Mule Deer	September 9	1

Table 8. Precipitation and temperature information for Natural Bridges National Monument. Data taken from Climatological Data, Utah, Volume 77, 1975.

Month	Temperature			Total precipitation
	Average minimum	Average maximum	Average	
January	15.8	39.0	27.4	.55
February	20.3	42.1	31.2	.92
March	25.3	48.0	36.7	2.11
April	28.3	55.3	41.8	1.90
May	39.0	69.3	54.2	.82
June	48.7	81.5	65.1	.18
July	57.9	88.2	73.1	3.12
August	55.8	86.7	71.3	.85
September	49.5	77.9	63.7	.91
October	37.6	68.3	53.0	.14
November	24.9	51.2	38.1	.69
December	16.6	43.2	29.9	.60

