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Mammals of Bandelier National Monument,
New Mexico

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Ecologist

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This paper presents a list of the mammals of Bandelier National Monument, along with brief accounts of the distribution and status of each species. Knowledge of the mammals of Bandelier is by no means complete. We hope that this report, which summarises all past mammal work, will serve to point out gaps in our knowledge and indicate where future work is needed. The nomenclature followed here is that of Findley, et al., 1975. We wish to express our gratitude to John Hunter, Ro Wauer, and John Lissaway, as well as the other park personnel and researchers who gave us much valuable support during our work at Bandelier.

Sources of Information

This paper reviews all reported sightings of mammals by park personnel and park visitors made prior to Sept. 1979. Our own observations were made while working in the park during the summers of 1975, 1977, 1978 and 1979. During this period small mammals were live trapped at all elevations and pit traps were also set at all elevations, especially in areas above 8500 ft. Knowledge of bats was obtained by mist netting over water.

Sight observations are always biased against secretive species, such as carnivores, and live trapping records tend to be biased in favor of certain species, such as Peromyscus, that are readily trapped. The bias in bat observations deserves special mention. Most bats drink by flying over water, and setting nets over waterholes is a standard way to trap bats. However, bats are able to detect the nets, as indicated by the very low rate of recapture (less than 1%). Only if the water source is small enough that it can be surrounded by nets, and far from other water, are numbers of

bats caught, and even then, recapture is rare. Netting over large bodies of water where the nets cannot cover much of the area is very unproductive.

Unfortunately, small ponds suitable for netting bats occur only in a few areas in Bandelier. Several ponds occur in the new acquisition lands at about 9000 ft. and most bat netting occurred at these sites. A single pond existed on Burnt Mesa at 7000 ft. but this pond silted up in August, 1977 and has not held water since. A pond existed at 7800 ft. in Water Canyon just outside the boundaries of Bandelier during part of the summer of 1979. Finally, the small reservoir at Base Camp at 6300 ft. was trapped during 1978. Trapping over running streams, over the Rio Grande, and over the sewer ponds within the monument was attempted but proved relatively unsuccessful. Our knowledge of bats in Bandelier, then, is biased in favor of those species that prefer foraging over open water, those that are less able to avoid nets, those that are more common at higher elevations, and those that are mostly active between dusk and 11 P.M. the hours of netting by the authors.

Mammal Distribution

The distribution of mammal species within an area may be dependent upon several things. Many species are limited to a particular vegetational zone. Within Bandelier the major vegetational types are Pinyon-Juniper, generally found below 7000 ft., Ponderosa forest, from 7000 to 8500 ft. a transition forest zone consisting of Ponderosa, Fir and Spruce at higher elevations, and a small patch of Blue Spruce forest at the top of Cerro Grande at 10,000 ft. In addition, there are riparian habitats along the major streams and a few meadows, mostly at higher elevations or in burned areas. Within each vegetational zone, some species may prefer particular topographic features,

such as rock slides or talus slopes. Finally, many species are restricted in their distribution by other closely related species with which they are in competition. Several genera of mammals (e.g. Thomomys, Eutamias, Neotoma) found in Bandelier contain two species, one at higher and one at lower elevation. In these cases, although the species in question are found in different vegetational zones, their distribution may be controlled by competition with a closely related species and not by vegetational preference. As such, the species range may fluctuate somewhat from years to years as the neighboring species numbers fluctuate.

Mammal Populations

Densities of mammal populations in a region are controlled by many factors, the most important being suitable habitat, including food sources, and severe environmental conditions. Small mammals often exhibit marked fluctuations in population size due to either severe winters, drought, or fire. Large mammals can often avoid periods of poor conditions by migration and this will affect their population size within an area. In Bandelier severity of conditions of the physical environment, cold winters and drought, seem more important in determining small mammal population sizes than biotic factors such as food availability or predator pressure. Populations were regularly reduced by severe winters to a point that they could not build up to a level sufficient to overeat their food sources during the summer months.

ORDER INSECTIVORA

\ Vagrant Shrew - Sorex vagrans

Vagrant shrews were caught in pit traps at Upper Crossing and along Dome Mountain road and the East Fork of Frijoles Creek at about 9000 ft. This species seems fairly common from about 7000 ft. to 9500 ft., especially near water.

ORDER CHIROPTERA

\ Yuma Myotis - Myotis yumanensis

A colony of over 300 Yuma Myotis roost during the summer months in a vertical chimney in the cliff above Long House in Frijoles Canyon, and other smaller colonies can be found in lower Frijoles Canyon. Naked young were found on the trail by Long House on July 1st, 1978. The bats emerge early in the evening and fly at treetop level down the canyon to the Rio Grande and then down the Rio towards Cochiti. Numbers were caught at the mouth of Frijoles and Alamo canyons over the Rio Grande as this flock passed in the early evening but were not seen thereafter. The species probably forages over the agricultural lands near Cochiti Pueblo. This species migrates south for the winter and is reported to be rare in the park during winter months.

\ Long-eared Myotis - Myotis evotis

This species was regularly trapped over cattle ponds at 9000 ft, and was found less frequently at 7000 ft. Captures in early June (3-15) and late August (20-24) consisted of only males, with equal numbers of males and females captured during July.

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✓ Fringed Myotis - Myotis thysanodes

This species is considered one of the more agile species by Findley et al., (1975) and this may explain the infrequency of its capture. All records come from the Ponderosa zone, mostly at 9000 ft. and are scattered from early June to late August with both sexes in equal frequency.

✓ Long-legged Myotis - Myotis volans

This species was captured very frequently in the Ponderosa zone over open water. Captures occurred from early June to late August with equal representation of both sexes.

✓ California Myotis - Myotis californicus

Three of these bats were captured in July, 1977, one on Burnt Mesa and two at 9000 ft. on the East Fork of Frijoles Creek and three males were captured June 9, 1978 at Base Camp. California Myotis may be commoner than this record indicates as the species is an agile flyer and seems to prefer lower elevations.

✓ Small-footed Myotis - Myotis leibii

Three individual small-footed Myotis were captured; August 2-3 at 9000 ft. (one male) August 11 on the Rio Grande, (one) and July 8th at Base Camp (one). As with the last species, this agile flyer prefers lower elevations and may be more common than this record indicates.

✓ Silver-haired Bat - Lasionycteris noctivagans

This is the most common species of bat caught within the monument. All captures (248) were within the Ponderosa zone and all captures were of males. Silver-haired bats were found from June 3 to August 7, being less common in mid to late August.

Big Brown Bat - Eptesicus fuscus

This species was captured infrequently in the Ponderosa zone, being much more common at 9000 ft. than at lower elevations. Males are caught more commonly than females, with only males caught in June through mid July and females caught predominantly in August.

Hoary Bat - Lasiurus cinereus

This bat, the largest species occurring within Bandelier, migrates through the area and is found primarily in the Ponderosa forest, although a few individuals have been caught at lower elevations. Only male Hoary bats have been caught from June 13 to August 6, the females apparently migrating at earlier and later dates to more northern areas. Males are generally absent from the area in early July.

Townsend's Big-eared Bat - Plecotus townsendii

Corynorhinus t.

This bat was rarely caught at 9000 ft. during July and August. Whether its rarity is real or due to the ability of this species to avoid nets is not clear. All seven individuals of this species that were caught were females.

Pallid Bat - Antrozous pallidus

Three individuals belonging to this species were caught over the sewer pond on the entrance road in June, 1977. This bat is primarily a species of lower elevations and most large bats observed along the Rio Grande and in the Pinyon-Juniper zone probably belong to this species.

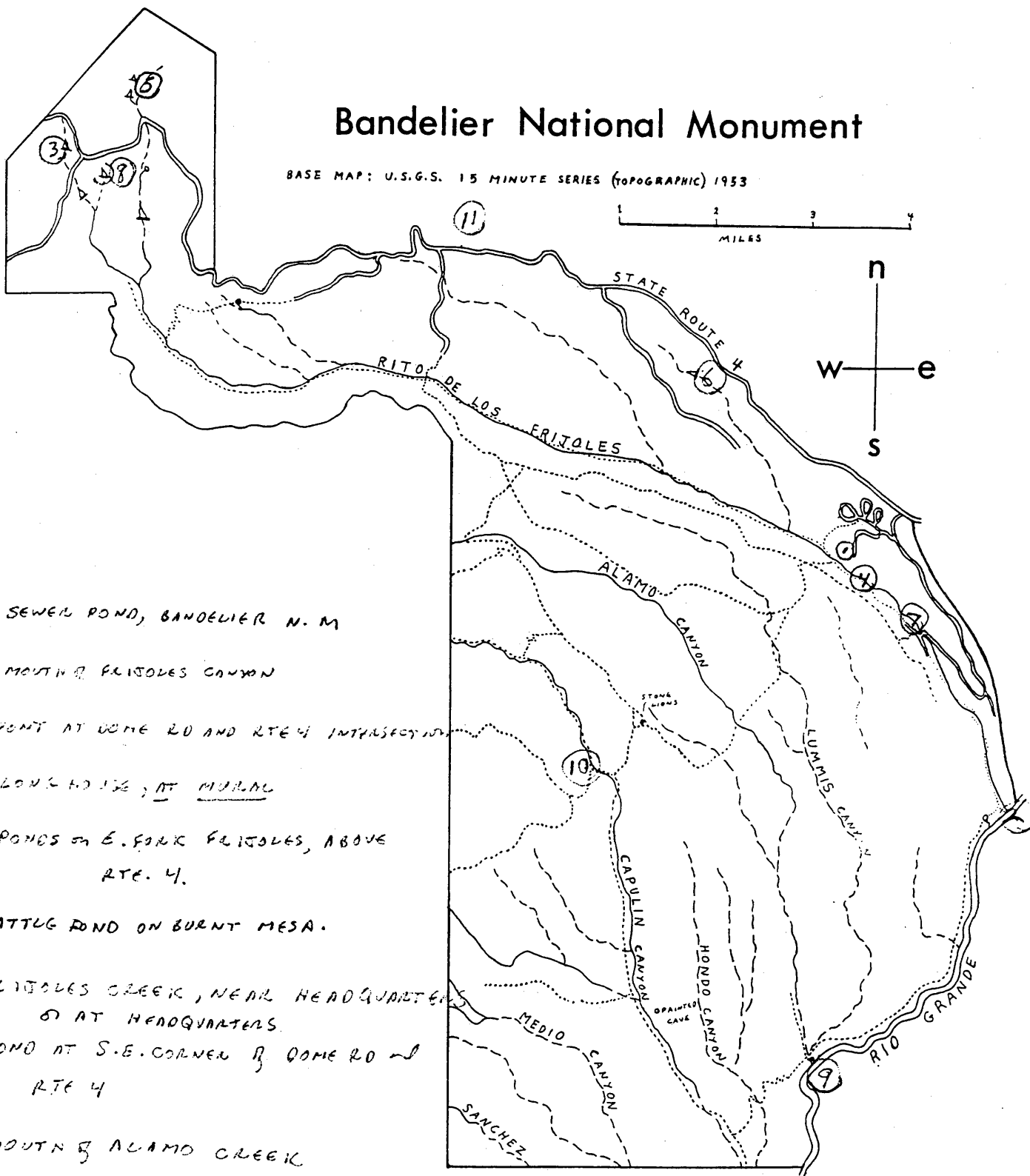
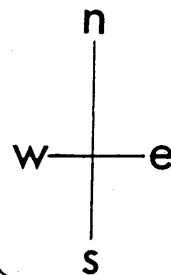
Brazilian Free-tailed Bat - Tadarida brasiliensis

A single individual belonging to this species was taken July 20, 1977 at 9000 ft. This species is not usually recorded at this elevation, being much more of a lower elevation species. The status of this species in Bandelier is unclear.

Bandelier National Monument

BASE MAP: U.S.G.S. 15 MINUTE SERIES (TOPOGRAPHIC) 1953

1 2 3 4
MILES



- ① = SEWER POND, BANDELIER N. M.
- ② = MOUTH OF FRIJOLES CANYON
- ③ = POINT AT DOME RD AND RTE 4 INTERSECTION
- ④ = LONG HOUSE, AT MURAL
- ⑤ = PONDS ON E. FORK FRIJOLES, ABOVE RTE. 4.
- ⑥ CATTLE POND ON BURNT MESA.
- ⑦ FRIJOLES CREEK, NEAR HEADQUARTERS OR AT HEADQUARTERS.
- ⑧ POND AT S.E. CORNER OF DOME RD AND RTE 4
- ⑨ MOUTH OF ALAMO CREEK
- ⑩ BASE CAMP
- ⑪ POND AT 7800 FT ON DIRT Rd off JEMEZ Rd JUST. NO OF RTE 4 JUNCTION.

[illegible]

Date	Altitude	<u>Myotis</u> <u>yumanensis</u>	<u>M. evotis</u>	<u>M. thysanodes</u>	<u>M. volans</u>	<u>M. californicus</u>	<u>M. leibii</u>	<u>Lasionycteris</u> <u>noctivagus</u>	<u>Epescus</u> <u>fuscus</u>	<u>Lasiurus</u> <u>cinereus</u>	<u>Plecotus</u> <u>townsendii</u>	<u>Antrozous</u> <u>pallidus</u>	<u>Tadarida</u> <u>braziliensis</u>
July 28/77	9000 (5)		4♂ 4♀	2♂ 4♀	2♂ 5♀			17♂	3♂	1♂			
29/77	9000 (5)									1♂			
30/77	7000 (6)		2♀	1♀		1♂				1♂			
31/77	9000 (5)		22♂ 10♀	3♂ 3♀	6♂ 4♀	2♂			1♂				
Aug. 1/77	6300 (7)	1											
2/77	9000 (8)		9♂	2♂ 1♀	5♂ 9♀		1♂	30♂	4♂ 1♀	3♂		1♀	
3/77	9000 (5)		11♂ 5♀	6♂ 2♀	9♂ 7♀		2♂	7♂	2♂	2♂		3♀	
4/77	9000 (5)		1♂ 3♀	1♂ 1♀									
6/77	9000 (5)				2♀								
8/77	5300 (9)	14♂ 12♀											
11/77	5300 (9)	3					1♂						
12/77	5300 (9)	2				1♂							
17/77	9000 (5)				3♀			6♂	1♀				
20/77	9000 (3)		5♂	1♂ 4♀	1♂ 4♀							1♀	
24/77	9000 (3)		2♂	1♂	3♀				1♀				
Totals		67	111♂ 50♀	24♂ 20♀	50♂ 59♀	7♂	5♂	248♂	11♂ 5♀	50♂	7♀	3	1♂

ORDER LAGOMORPHA

Cottontail Rabbit - Sylvilagus auduboni and Sylvilagus nuttalli

Cottontails are found in small numbers throughout Bandelier. Those found at higher altitudes, from 8500 feet and up, have been placed in a separate species, Sylvilagus nuttalli, from the lower altitude species S. auduboni. S. Nuttalli appears slightly larger and is better furred than S. auduboni.

Whether these high altitude forms are a distinct species or only a morphological variant is not clear (see Findley, et al., 1975 for fuller discussion). Assignment of individuals to species is possible only through skeletal measurements.

Black-tailed Jack Rabbit - Lepus californicus

The Jack Rabbit is found throughout Bandelier below the Ponderosa zone. Although it does not appear to be common within the Monument at present, presumably due to dry summer conditions, skeletal remains of Jack Rabbit are recovered commonly from archeological sites within the Monument.

ORDER RODENTIA

Least Chipmunk - Eutamias minimus *Tamias m.*

This species is found commonly above 9000 ft. in Bandelier National Monument. At lower altitudes it is replaced by the Colorado Chipmunk, from which it differs by being slightly smaller in size, a difference hard to distinguish in the field. During 1978 and 1979 this species was found near Apache Spring at 8500 ft. perhaps attracted to this lower altitude by the lush green grass in this recently burned area.

Colorado Chipmunk - Eutamias quadrivittatus

This is the common species of Chipmunk found at lower altitudes in Bandelier. An inhabitant of the Ponderosa forest, it can be found in canyon bottoms down to 5500 but is most frequently found from 6500-8500 ft.

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Rock Squirrel - Spermophilus variegatus

This species is common on rocky canyon sides from the Rio Grande up to about 7000 ft. A few individuals are also found in rocky areas within the Pinyon-Juniper woodland.

Golden-mantled Ground Squirrel - Spermophilus lateralis

This species is common in the monument, especially around grassy areas from about 6000 ft to 9000 ft. They become quite tame near campgrounds.

Abert's Squirrel - Sciurus aberti

This large, grey, tassel-eared squirrel can be found wherever Ponderosa is in abundance, from the canyon bottoms near the Rio Grande to about 8500 ft.

Red Squirrel - Tamiasciurus hudsonicus

The red squirrel is an inhabitant of the higher forests, being found commonly above 7500 ft.

Botta's Pocket Gopher - Thomomys bottae

This species is the common gopher in Bandelier, found mostly in tuffaceous soils within the Pinyon-Juniper Zone, from the Rio Grande to about 7500 ft. It is less common within the Ponderosa community but can be found occasionally where old burns have allowed ground vegetation to develop.

Northern Pocket Gopher - Thomomys talpoides

This is the gopher of the high altitude meadows, and is found commonly in wet meadow areas from 8500 to 9500 ft.

Silky Pocket Mouse - Perognathus flavus

Pocket mice assignable to this species were caught during the summer of 1978 in open Pinyon-Juniper woodland on Frijoles and Frijolitos Mesas at about 6700 ft. Densities of this species are probably low, as this area is at the upper elevation of their preferred habitat range.

Rock Pocket Mouse - Perognathus intermedius

Chaetodopus

Several pocket mice were caught during the summers of 1975 and 1978 on the Pinon-Juniper slopes along the North side of the mouth of Alamo Canyon at about 5700 ft. These specimens, although they lack elongate spiny hairs on the rump, seem assignable to this species. They are the northernmost population of this species within the state (see Findley et al., 1975) and as such deserve further study.

Beaver - Castor canadensis

Recent records of beaver within the Monument are based on cuttings of Juniper and other trees along the Rio Grande between the mouths of Frijoles and Alamo Creeks during the summers of 1977 and 1978. As beavers require a stable water level, the flooding of Cochiti Reservoir has probably driven these beaver from the area. Old records show beavers once occurred in upper Frijoles Creek, at the beaver ponds, but they have been exterminated from this area with no reports of activity since 1962. Beavers are still found in the Valle Grande.

Western Harvest Mouse - Reithrodontomys megalotis

Harvest mice may be expected in all habitats up to about 8500 ft. The species has been trapped only once in Bandelier, along Frijoles Creek near the Upper Crossing. Scarcity of captures may be due to trap avoidance and the use of traps designed for slightly larger species.

Deer Mouse - Peromyscus maniculatus

The Deer Mouse is by far the commonest mammal within the monument. It is the common mouse in all forests above the Pinyon-Juniper zone, but is also found at lower elevations, particularly where disturbances have occurred. An exceptionally opportunistic species, Deer Mice are the usual 'cabin mouse' and also are quite common in burned areas. Deer Mice undergo seasonal fluctuations in population, with a usual reduction in numbers during the winter. Summer populations as high as 16 individuals per hectare have been recorded (Guthrie, 1980).

White-footed Mouse - Peromyscus leucopus

White-footed Mice were caught along the lower portion of Frijoles and Alamo Creeks during the summer of 1975. (See Guthrie, 1976). Their distribution was restricted to water margins below 5700 ft. Inundation by Cochiti Reservoir of the lower reaches of Alamo Canyon and flooding after the La Messa fire along the lower reaches of Frijoles Canyon have completely destroyed the habitat where this species was found and whether it has survived within the monument is not known.

Brush Mouse - Peromyscus boylii

This species is common along the brushy canyon bottoms and riparian woodland in the lower part of Bandelier, rarely extending up to 7000 ft. (See Guthrie, 1975, 1980).

Pinon Mouse - Peromyscus truei

This large Peromyscus is found wherever Pinyon-Juniper woodland exists and is dependent upon this vegetational zone for food and shelter. A species that spends much time above ground, it is severely effected by both fire and prolonged severe winter conditions.

Rock Mouse - Peromyscus difficilis

This species is found from the Rio Grande to about 7400 ft., being most common in rocky areas within this range. Rock Mice are found commonly at the base and top of canyon walls, where rocky outcrops give way to other vegetation.

White-throated Woodrat - Neotoma albigula

This species of woodrat is found at lower altitudes, from the Rio Grande up through the Ponderosa zone to about 7500 ft. In the lower canyons it is found in caves and crevases along the canyon walls, and occasionally in piles of dead wood on the canyon floors. It is rare on the mesa tops, being restricted there to rocky areas along canyon edges.

Mexican Woodrat - Neotoma mexicana

This species is found at higher altitudes, preferring dry soils in the upper Ponderosa zone. It is rare in Bandelier as most areas within its preferred altitude are too moist. One specimen was taken near Apache Spring.

Montane Vole - Microtus montanus

Voies are inhabitants of grassy meadow areas. This species was found in the small meadow along the access road to Apache Spring, and after the La Mesa fire it was found in small numbers throughout the grassland developing in burned Ponderosa and mixed conifer woodland, from about 7400 ft. to 8500 ft.

Long-tailed Vole - Microtus longicaudus

This species was trapped at higher altitudes, most especially in the wet meadows on the upper reaches of the East Fork of Frijoles Creek at about 9100 ft. where it seemed fairly common.

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Gapper's Red-backed Vole - Clethrionomys gapperi

This is a high altitude species that has been trapped only in the Blue Spruce forest on the top of Cerro Grande at 10,000 ft.

Muskrat - Ondatra zibethicus

Musk rats were seen swimming in the Rio Grande near the mouth of Alamo Canyon during the summer of 1977, and are probably resident along the river. What effect Cochiti Reservoir will have on this species is not known.

Porcupine - Erethizon dorsatum

Porcupines are nocturnal foragers and, despite their size, rarely encountered during daytime. Most observations have been along route 4 in the evening, when Porcupines cross the road or feed along its edges on Aspen seedlings and herbaceous vegetation. They are most commonly observed in the upper mixed conifer forest, where Aspen occurs, from about 8000 to 9000 ft., but individuals have been found in the lower Ponderosa forests down to 7300 ft.

ORDER CARNIVORA

Coyote - Canis latrans

Coyotes are found throughout Bandelier, and packs can be heard calling in the early evening at all altitudes, from the Rio Grande to 9000 ft. The species, although common, is rarely seen due to wariness engendered by predator control measures taken in areas outside the monument.

Red fox - Vulpes vulpes

Although no specimens have been taken within the monument, one or two visual sightings of individuals along route 4 seem accurate. This species should be considered a rare inhabitant of the Jemez mountain region.

Grey Fox - Urocyon cinereoargenteus

This species is secretive and seldom seen, but occurs regularly within Bandelier and is seen two or three times each year. It is widespread but probably most common in the riparian woodland of the lower canyons.

Black Bear - Ursus americanus

Black bears may be found in all areas above the Pinyon-Juniper woodland. In Bandelier they seem to be most common along Frijoles Creek, moving down from higher regions (8-9000 ft.) in the summer, and sometimes following Frijoles Creek as far as Ceremonial Cave. The number of bears within Bandelier is low, and they range widely into adjacent Forest and laboratory lands.

Ringtail - Bassariscus astutus

The Ringtail cat is a secretive nocturnal inhabitant of canyon walls. Within Bandelier they have been most commonly sighted in car headlights near headquarters. The species is probably more common than sightings would indicate.

Raccoon - Procyon lotor

The Raccoon is a common inhabitant of Bandelier, and in the early morning, the Frijoles Canyon trail, from headquarters to the Rio Grande, is often covered with Raccoon prints. Raccoons are much less common elsewhere in the monument. None were observed in Alamo Canyon and they appear rare in Capulin Canyon as well, preferring the permanent water of Frijoles to these more ephemeral streams.

Ermine - Mustela erminea

An ermine was trapped near Apache Spring during the summer of 1978 and another was seen during that summer and the previous winter near Ponderosa Group campground. This species is probably a rare but regular resident above 7600 ft. and may be expected to increase in numbers as its principal food, Microtus, increases in burned areas.

Long-tailed Weasel - Mustela frenata

Long-tailed Weasels are a regular but uncommon resident of all areas of Bandelier, encountered most frequently in areas where their prey, Golden-mantled Ground Squirrels and woodrats are common. During my four summers at Bandelier, this species was sighted twice, and a specimen that had been killed by a car was recovered from route 4.

Badger - Taxidea taxus

The presence of the Badger within bandelier is shown more often by evidence of its diggings in search of gophers than by actual sightings. They are encountered on the mesa tops, up to 9000 ft. but seem most frequent at about 7-8000 ft.

Striped Skunk - Mephitis mephitis

The Striped Skunk is an opportunistic species that readily takes advantage of human presence to visit garbage cans and refuse pits. In Bandelier it is most commonly encountered in the riparian vegetation of the canyon bottoms.

Mountain Lion - Felis concolor

Mountain lions occur in small numbers throughout Bandelier, but are seldom encountered. Occasionally, the back country traveler is surprised to find a lion, with cat-like curiosity, following him or watching him from a vantage point, and they are occasionally seen crossing roads. Two or three sightings a summer is normal.

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✓ Bobcat - Lynx rufus

Although probably more numerous than the mountain lion, Bobcats are nocturnal, very shy and are seen only infrequently. Footprints are often encountered, however, and indicate that this species, although infrequently observed, is common in Bandelier.

ORDER ARTIODACTYLA

✓ Elk - Cervus elephus

A sizeable elk herd summers in the Valle Grande, wintering at lower elevations, including Bandelier National Monument. Their movements seem to be tied to the presence of good grazing, found often in burn areas where grass is lush. Elk are encountered in Bandelier down to 6600 ft. in winter, and a few individuals summer at 9000 ft., and are often seen visiting the old cattle ponds or grazing in meadows along route 4.

✓ Mule Deer - Odocoileus hemionus

Mule deer are found at all elevations within Bandelier, but are most frequently seen in more open areas of Pinyon-Juniper woodland where the brushy browse plants upon which they feed occur.

ORDER PERISSODACTYLA

✓ Burro - Equus asinus

Burros are common in the lower canyons of Bandelier, extending from the Rio Grande to 7500 ft. Several efforts have been made to eliminate them from the monument, or keep their numbers in check. Due to these efforts, and their occurrence to the south of the Monument, on National Forest lands, they are most common in the southern portion of the monument.

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Horse - Equus caballus

Although no true wild horses are thought to be in the state (see Findley, et al., 1975) small groups of escaped horses often are encountered in the southern portion of the monument.

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ADDITONAL RECORDS

Extirpated species

Bighorn Sheep (Ovis canadensis), Gunnison's Prairie Dog (Cynomys gunnisoni) and the Yellow-faced Pocket Gopher (Pappogeomys castanops) are known from bones found in archeological sites along the Rio Grande (Traylor, et al., 1977) but are not found in Bandelier today. The former two species have been extensively hunted during historic times and the latter species is today restricted to more eastern and southern portions of the state. Its absence may be due to climatic change.

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Unconfirmed reports

The following additional species are known only from unconfirmed visual sightings.

Gray Wolf - Canis lupus

No valid records of wolves are known from northern New Mexico since the 1940's. Given the similarity of wolves to coyotes and the existence of "coydogs" of intermediate size, sight records for Bandelier in the 1950's cannot be considered valid.

White-tailed Deer - Odocoileus virginianus

There are no valid records of this species from the Jemez Mountains (see Findley, et al. 1975) and all reported sightings are probably of light colored Mule Deer.

Mink - Mustela vison

Mink have been recorded from the upper Rio Grande Valley but there are no records for the Jemez Mountains. Although a possible rare resident in the Bandelier area, the similarity of Mink to weasels in both body form and footprint make sight records unreliable.

Spotted Ground Squirrel - Spermophilus spilosoma

A sight record for this species near headquarters in 1961 could not be confirmed, and it seems unlikely that this plains species would occur in Bandelier.

House Mouse - Mus musculus

All reports of mice in houses that were investigated turned out to be Deer Mice (Peromyscus maniculatus) rather than this introduced species.

Possible Additions to the Fauna

Several species are known to occur in the Jemez Mountains and might be expected in Bandelier, although they have not yet been reported. These include three species of shrew; the Masked Shrew (Sorex cinereus), the Dwarf Shrew (Sorex nanus), and the Water Shrew (Sorex palustris). All three are high altitude species known from other areas in the Jemez mountains.

Both the Little Brown Myotis (Myotis lucifugus) and the Western Pipistrelle (Pipistrellus hesperus) have been captured along the Rio Grande both above and below Bandelier and should be found at lower altitudes within the monument. The Spotted Bat (Euderma maculatus) is also a possible resident within the lower canyons of Bandelier. Finally, the Bushy-tailed Woodrat (Neotoma cinerea) is known from the Valle Grande and might be expected at higher elevations within the monument.

71-2
on Bogus list

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