

**MAMMALS OF GREAT BASIN NATIONAL PARK
Final report**

**Great Basin CESU task agreement JBR07020002
Cooperative agreement HBR07010001
Permit # GRBA-2002-SCI-0003
Accession # GRBA-308**

by

Eric A. Rickart, Ph.D. - Curator of Vertebrates

and

Shannen L. Robson, M.S. - Project coordinator

Utah Museum of Natural History,
University of Utah,
1390 E Presidents Circle, Salt Lake City, UT 84112

January 2005

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY.....	3
INTRODUCTION.....	4
STUDY AREA.....	4
METHODS	
Historical records.....	4
Review of published records	5
Review of museum collections.....	5
Review of unpublished sources.....	6
Review of prehistoric (Quaternary) records.....	6
Field surveys for small and medium-sized mammals (excluding bats).....	6
Inventory techniques and equipment.....	6
2000 Preliminary Survey.....	7
2002-2003 Survey methodology.....	7
Grid trapping.....	8
Directed trapping.....	8
Opportunistic data collection.....	9
RESULTS AND DISCUSSION	
Results of search for historical records.....	9
Results of 2000, 2002-2004 field surveys.....	9
Summary of effort.....	9
Comparison of grid trapping and directed trapping.....	10
Patterns of relative abundance and species richness.....	10
Results of opportunistic data collection.....	11
Inventory completeness.....	11
Adequacy of sampling and limitations of data analysis.....	11
Biogeography and community structure.....	12
Recent faunal change.....	13
Mammal species requiring special consideration.....	14
RECOMMENDATIONS FOR FUTURE MONITORING AND MANAGEMENT.....	14
REVISED PARK MAMMAL LIST.....	15
ACKNOWLEDGEMENTS.....	16
LITERATURE CITED	16
FIGURES	
Figure 1. Map of GRBA and surroundings showing locations of mammal surveys.....	19
Figure 2. Elevational distribution of small and medium sized mammals.....	20
Figure 3. Numbers of specimens or captures of small mammals by elevation.....	21
TABLES	
Table 1. Comparison of results from grid and directed trapping.....	22
Table 2. Elevation range records of mammals.....	23
Table 3. Mammal species (other than bats) documented from within GRBA.....	24
Table 4. Mammal species (other than bats) that potentially occur within GRBA.....	25
Table 5. Extant mammal species of prehistoric occurrence.....	26
Table 6. Comparison of historical and recent small mammal surveys.....	27
Table 7. Mammal species (other than bats) of special concern.....	28
APPENDICES	
Appendix 1. Historical specimen records of mammals (other than bats).....	29
Appendix 2. Photographs of selected mammal survey localities.....	57
Appendix 3. Specimen records of mammals from recent surveys.....	63
Appendix 4. Results of grid trapping in Snake Creek and Strawberry Creek canyons.....	91
Appendix 5. Results of grid live trapping at sites in Lehman Flat.....	92
Appendix 6. Sightings and sign records of mammals (other than bats).....	93
Appendix 7. Synopsis of mammal species.....	95
Appendix 8. Revised list of mammals for Great Basin National Park.....	112
Appendix 9. Species distribution maps.....	114

EXECUTIVE SUMMARY

In this report we summarize data on the non-volant mammals in Great Basin National Park (GRBA) obtained from inventories conducted within and around the Park before 2000 and from field investigations targeting small mammals and small predators conducted during 2000, 2002, and 2003. The primary scope of work included the following tasks:

1. Establishing a comprehensive list of expected mammal species within the Park,
2. Conducting inventories of the small mammals and small predators within GRBA with the ultimate goal of documenting the occurrence of 90% of small mammals by random and directed sampling in identified priority locations and through opportunistic data collection,
3. Obtaining voucher specimens for each species,
4. Identifying sensitive species that are federally or state-listed, rare, or worthy of special consideration,
5. Establishing a core of randomly located permanent sampling grid sites (and associated protocol) for future monitoring of mammal communities by the Park. The ultimate aim of this effort is to aid the National Park Service in their broader initiative to “lay the groundwork necessary for park managers to develop effective monitoring programs and formulate effective management strategies for resource management and protection (NPS 1999:2)”.

This report documents our effort in accomplishing these objectives as follows:

1. We conducted literature and museum searches to compile historic records and conducted field surveys in priority locations in order to document at least 90% of the small mammals within the Park. The field surveys were designed to fill gaps in existing data, collect voucher specimens that unequivocally document occurrences and provide a basis for future research activities, and identify sensitive species or those that are worthy of special management consideration,
2. We compiled a revised, comprehensive list of mammals occurring in the Park, including those with potential occurrence,
3. From our search and survey efforts a total of 46 mammal species are documented to occur within GRBA and estimate at least 90% inventory completeness for mammals (other than bats) within the Park.
4. We entered the data for records within GRBA boundaries into NPSpecies,
5. We established six randomly-located permanent sampling grid sites and associated sampling protocol for future monitoring of mammal communities by the Park personnel,
6. We provide a brief review of prehistoric (late Quaternary) records of mammals from the region to provide a deeper temporal context for understanding the current Park fauna,
7. We compare the historic and contemporary mammal inventory data to assess long-term trends in the Park region over the past 70 years in order to lay the ground work for the development of GRBA management strategies,
8. We compile a list of mammal species that are sensitive or of special management concern,
9. Based on our results and observations, we make some general recommendations regarding future monitoring and management of the mammal fauna within the Park,
10. Finally, we present a revised version of the comprehensive list of mammals for the Park region.

INTRODUCTION

In 1992, the National Park Service (NPS) established a Service wide Inventory and Management (I&M) Program to obtain credible and organized information on the natural and cultural resources within National Parks to fulfill the mandates within the congressional National Parks Omnibus Management Act (NPS 1999). In 2002, Mojave Network I&M program managers (NPS 2001) identified the inventory of small mammals and small predators of Great Basin National Park a high priority and retained the services of Dr. Eric Rickart, Curator of Vertebrates at the Utah Museum of Natural History and Adjunct Assistant Professor of Biology at the University of Utah, to act as Principle Investigator for this task.

Prior to this task agreement (during the summer of 2000), the PI and colleagues from the Field Museum, Chicago, conducted initial surveys along an elevation gradient of the south Snake Range that included the east-central portion of the Park along the Lehman and Baker creek drainages.

STUDY AREA

Great Basin National Park (GRBA), established as a National Park in 1987, encompasses most of the southern portion of the bifurcated Snake Range and is located midway along the eastern border of Nevada. The majority of the Park's 77,082 acres incorporates mid- and high-elevation mountain habitat with only 80 acres of low elevation basin habitat. The southern Snake Range is distinctly geographically separated from the northern range by Sacramento Pass (see Fig. 1). GRBA is unique in that it is the only National Park wholly within the physiographic Great Basin and contains the most dramatic elevational range and the largest expanse of high-elevation, boreal habitat (over 7,000 acres above 10,000 feet) within the Basin and Range region. Elevation within the Park ranges from 5,800 feet on the eastern margin to 13,063 feet at the summit of Wheeler Peak, the second highest peak in Nevada (NPS 2001). GRBA is located within a cold desert climate zone and experiences dramatic ranges in annual temperature and precipitation. Temperatures at GRBA vary from -10 to 40+ degrees F during the winter (Lehman Cave, 6,825 feet elevation) to 85-95+ degrees F in the valleys and 55-65+ degrees F along the mountain ridges in the summer. Average annual rainfall is about 6 inches in the valleys to over 30 inches along the mountain ridges (NPS 2001).

Plant communities at GRBA vary with elevational gradients grading from sagebrush grassland to piñon-juniper woodland to mixed aspen-conifer forest to mixed conifer forest to unique subalpine and alpine communities dominated by low-growing herbaceous and woody perennials. Over 700 plant species have been documented within the Park boundaries so far, many of which are endemic. There are ten perennial stream systems and alpine lakes within GRBA and low elevation arid desert basins surround the Park. The reliable water sources and broad elevational gradient of GRBA create an oasis habitat for natural communities. Within the Basin and Range, mountains have acted as islands throughout the Holocene, sustaining plant and animal populations that are isolated from each other by intervening arid lowlands. As a result, the plants and animals in a given mountain range within the basin may be quite unique from a nearby neighboring range. This appears to be true for the non-volant mammal fauna within GRBA (to establish the validity of this impression, regional comparisons are reviewed later in this report).

Although this area is remote, it has nevertheless experienced significant mining, farming, and grazing impacts since the late 19th century when the varied natural resources within the Park region attracted human exploitation. The effects of disturbance on the local ecology by humans and domesticated animals over the past century can still be seen and felt today.

METHODS

Historical records

Assembling historical inventory data is essential for resource management and the design of research agendas (NPS 1999). With the assistance of GRBA staff, we compiled historical records for mammals other than bats through a review of the published literature, survey of museum collection records, and from other unpublished sources. In addition to records of actual occurrence within the GRBA boundaries we also compiled records from the "Park region" to create a list of the species that potentially occur within the Park but have not been documented. We defined the "Park region" as the southern Snake Range south of Sacramento Pass and portions of the adjacent Snake and Spring valleys due east and west of the Park. In some instances, we also refer to records from the northern Snake Range (north of

Sacramento Pass) when we felt they were relevant examples. For purposes of analysis and discussion, we have ranked species into 3 size categories that reflect survey methodology: 1) small (<500 g) includes species that are readily sampled through trapping; 2) medium (500 g - 5 kg) includes species that require larger traps or visible survey; and 3) large (> 5 kg) species that require visual survey.

Georeference data for localities, expressed as latitude-longitude in decimal degrees and using the NAD 1927 horizontal datum, were obtained directly from the original sources and verified by the authors, or were generated by the authors, using the GNIS gazetteer (USGS 2004) and the MaNIS georeference protocols (MaNIS 2004). The location accuracy of historical records and records from other collections were verified by us using the same protocol. We inspected specimens from the Utah Museum of Natural History collections and verified their species identifications. We did not physically examine the specimens from other institutions, but because they are from well-curated collections with high standards for data quality we assume these species identifications to be reliable.

We use units of feet rather than meters to describe elevation above sea level since this follows both historical locality data and the most detailed USGS topographic maps. For purposes of data analysis, we recognize four general elevation zones that roughly correspond to major plant community groupings in the Park region:

1. low elevation (below 6,500 ft) - principally desert shrub communities
2. mid-elevation (6,000 - 8,000 ft) - desert shrub and piñon-juniper or mountain mahogany woodland
3. high elevation (8,000 - 10,500 ft) - subalpine forest and meadow communities
4. alpine (> 10,500 ft) - krumholtz communities and areas above treeline

For historical museum records we report the following information for each specimen: museum collection acronym for where the specimen is held, the specimen catalog number, scientific name (genus and species), common name, original collector, collector's field number, sex of the specimen, preparation type, description of the collecting locality, occurrence within Park boundaries, the year, month, and day of collection, locality georeference coordinates (in decimal degrees), horizontal datum, and locality elevation (in feet). Data for specimens collected within the Park boundaries were entered into the NPSpecies database. Scientific names are from Wilson and Reader (1993) the most recent comprehensive source for nomenclature. Common names are those used most frequently.

Review of published records

The foundation for our list came from an existing mammal species list compiled by GRBA (Pfaff 1999). To verify and supplement this list, we searched the literature using academic search engines and library holdings at the University of Utah for early mammal records from GRBA. We relied heavily on Hall (1946) who assembled an exhaustive and comprehensive faunal report on the mammals of Nevada that includes a detailed accounting of all known vouchered and sighted records within the GRBA region before 1945. Hall was well respected as a thorough and meticulous scholar who set many of the standards for field surveys and faunal reports. We feel confident in the reliability of his voucher data, although we question a few records of sightings that we consider equivocal. A previous review of GRBA mammal records by Baggs (1993) was based entirely on Hall (1946) and earlier versions of the GRBA species list compiled by Park personnel and provided no additional information on Park records for mammals other than bats.

Review of museum collections

Museum records were searched to locate all the voucher specimens taken from GRBA that are held in museum collections. Records were accessed through the MaNIS network system of distributed databases (MaNIS 2004). This network includes collection information from 17 institutions in North America including the primary collection repositories for specimens from the Park region, most notable among these is the Museum of Vertebrate Zoology at the University of California, Berkeley (MVZ) which holds more than 900 mammal specimens from the Snake Range. Other collections within the MaNIS network with mammal records from the Park region include the Burke Museum at the University of Washington, Seattle (UWBM), Bell Museum of Natural History at the University of Minnesota, Minneapolis (MMNH), Museum of Southwestern

Biology at the University of New Mexico, Albuquerque (MSB), Nevada State Museum, Carson City (NSMC), and Utah Museum of Natural History at the University of Utah (UMNH). Using the MaNIS search engine, we queried the network for all records from White Pine County, Nevada, and by inspection selected those that fell within the Park region (the Snake Range and surrounding valleys). To account for any records that might not include county of origin, we ran additional queries for Nevada records containing various key words in the specific locality based on place names within the Park and surrounding region (e.g., Baker, Lehman, Snake, Pole, Strawberry, Wheeler, etc.). This second search failed to reveal any additional records from the region. In addition to MaNIS institutions, we solicited information directly from the Nevada State Museum collection (NSMC) and the Monte L. Bean Museum at Brigham Young University (BYU).

Review of unpublished sources

A few unpublished records of mammals from within the Park region were obtained from GRBA staff. These consist of early records of visual sightings or physical specimens retained by the GRBA resource Management office.

Review of prehistoric (Quaternary) records

In addition to searching the published literature for historic records of occurrence, we also searched for paleofaunal records in the Park region to establish when and what local extinctions may have occurred. Regional prehistoric data were assembled from published reports on excavated cave deposits within GRBA (Lehman Cave, Snake Creek Cave), north Snake Range (Smith Creek Cave), and the Snake Valley (Crystal Ball Cave, Gatecliff Shelter). Although we did not verify specimen identifications, most of the important prehistoric records have been extensively reviewed by Donald Grayson (1987, 1993), a recognized expert on Great Basin faunal history. We do not include paleofaunal records for extinct species. For records of extant species that are no longer present in the region we report the following information: the scientific name (genus and species), common name, regional site localities, source citation, and specific comments.

Field surveys for small and medium-sized mammals (excluding bats)

Inventory techniques and equipment

The most effective means of determining the presence and quantifying the abundance, of mammal species is by physical capture (Resources Inventory Committee 1998). There are many different ways to capture mammals and the appropriate methodology is primarily determined by a project's research goals, species being targeted, the staff and time available for collecting data (feasibility), and methods of data analysis. Although randomized sampling allows for rigorous statistical control, directed trapping is a preferred method for rapid assessment of local species diversity (Wilson et al. 1996). This approach, which utilizes a variety of traps and techniques to target specific taxa and microhabitats with the aim of maximizing trap success, has proved to be very effective in adding important new records in regional mammal studies (Grayson and Livingston 1993, Lawlor 1998, Rickart and Heaney 2001, Rickart et al. 2004).

Mammal surveys require specialized trapping and animal handling equipment (Wilson et al. 1996; Resources Inventory Committee 1998). Our surveys employ three basic trap types: live traps, pitfall traps, and snap traps. The most common live trap used by researchers is the collapsible aluminum Sherman trap (H.B. Sherman Traps, Tallahassee, Florida) available in a variety of sizes (the most popular being 13 x 13 x 38cm and 7.5 x 9 x 22cm). These traps are set by catching the door onto a pressure sensitive treadle-trigger, and they must be set on a firm, flat surface to be effective. Sherman traps target smaller species (i.e., those weighing less than 500 g), and they are particularly effective for capturing smaller rodents. However, Sherman traps are less effective with other groups (such as shrews) or for trapping in many microhabitats (e.g., steep rocky slopes or very wet riparian areas). For much of our trapping, we employed break-back snap traps that are designed to quickly and humanely kill small mammals. These traps are relatively small and can be set in a wide variety of sites where live traps cannot be used. We used two sizes of snap traps to target small to medium-sized rodents; the Museum Special (7 x 14 cm) and the Victor Rat Trap (9 x 18 cm) both manufactured by Woodstream Corp., Lititz, Pennsylvania. Pitfall traps, constructed from containers that are placed in the ground with the open top

flush to the surface, are particularly effective for shrews (genus *Sorex*) that are generally difficult to capture with standard small mammal traps (Rickart and Heaney 2001). Although pitfalls are often set in uniform arrays connected by drift fences, we utilized simple versions constructed from 12 oz (355 ml) beverage cans set individually without drift fences. For larger mammals, we set Tomahawk Traps (13 x 13 x 40 cm) manufactured by the Tomahawk Live Trap Co., Tomahawk, WI, or Havahart Traps (18 x 18 x 60 cm) manufactured by Woodstream Corp. At a few sites, McAbee Gopher Traps (Woodstream Corp.) were used for collecting pocket gophers.

Additional information on Park mammals was obtained through visual observations, opportunistic collection of salvaged specimens, collection of scat samples, and records of tracks and other sign. Park visitors and staff reported much of this information. We also include some records of carnivores obtained by Park personnel through the use of automated camera stations, records of directed surveys for marmot, and general results of small mammal grid trapping conducted independently by Park personnel in 2004.

Survey localities were photographed with film or digital cameras. The following locality information was documented for each site: written locality description, horizontal georeference coordinates, elevation (in feet), and basic habitat description. Georeference coordinates were determined using a Garmin hand-held GPS unit utilizing a minimum of four satellite contacts. Georeference data were recorded in two formats: as Universal Transverse Mercator (UTM) coordinates utilizing the NAD 1983 datum (the required NPS format), and as decimal-degree latitude and longitude utilizing the NAD 1927 horizontal datum (format for the MaNIS database). Data were recorded in the field on standardized, data sheets. For live-trapped individuals that were marked and released we recorded species identity, sex, and age. For voucher specimens we recorded species identity, age, sex, and basic reproductive condition, as well as external measurements of total length, length of tail vertebrae, length of hind foot including claws, length of ear from notch (all in mm), and body mass (in grams).

Specimens retained as vouchers were preserved whole in formalin (later transferred to 70% ethyl alcohol) or prepared as complete skeletons. For nearly all voucher specimens, samples of skeletal muscle tissue for future genetic analyses were preserved in 95% ethanol and stored under refrigeration at UMNH. We present the following data for voucher specimens obtained during 2000-2004 surveys: museum acronym, specimen catalog number, scientific name (genus and species), common name, description of the collecting locality, occurrence within Park boundaries, the year, month, and day of collection, locality georeference coordinates (in decimal degrees), horizontal datum, and locality elevation (in feet). Voucher specimens from the 2000 field survey were deposited in the collections of the Field Museum (FMNH) and the Utah Museum of Natural History (UMNH). Specimens from 2002-2004 were deposited in the UMNH mammal collection as GRBA accession number GRB-308, and are retained there under a loan agreement with the Park. Original written field data are filed at the Utah Museum of Natural History (UMNH), and also were scanned and delivered to GRBA as an electronic file. Field data were transcribed into Excel spreadsheet files and subsequently entered in the NPSpecies and the UMNH collection databases.

2000 Preliminary Survey

Information on contemporary distribution and relative abundance of mammals in the Park region was collected through field surveys. We include data from an initial survey conducted in July 2000, prior to the award of this contract, in our analysis. That work, done in collaboration with colleagues from the Field Museum (FMNH), involved resurveying sites in the most accessible east-central portion of the Park along the Lehman and Baker Creek drainages worked by field crews of the Museum of Vertebrate Zoology, University of California (MVZ) between 1929 and 1938.

2002-2003 Surveys

Fieldwork conducted by the authors in 2002 and 2003 was done under contract with the National Park Service and Great Basin National Park. That work involved surveys of areas that had been poorly sampled or had not been sampled previously mainly in the northern, southern, and western portions of the Park. Low and high elevation habitats within the Park that were less intensively sampled historically were specifically targeted. Our 2002-2003 surveys involved two principal approaches:

Grid trapping

In 2002 we sampled small mammals using 30 m x 30 m trapping grids at 11 sites within Snake Creek and Strawberry Creek canyons. Accessible sites were chosen from a list of randomly generated points provided by GRBA in predefined low and mid-elevation vegetation communities (see plant community definitions below). At each chosen site, we established a 30 x 30 meter grid centered on the coordinate resulting in 9 trap stations placed at 10 m intervals. At each station we placed one Sherman live trap and one Museum Special snap trap set within 1 m of each grid coordinate (total of 18 traps per grid). Each grid was sampled for at least 3 nights (54 trap-nights).

Six of these 11 grids were established as permanent sites that could be revisited and expanded by GRBA management for future monitoring of small mammal communities. When possible, we co-located our mammal grids with the permanent herpetology grids. In each canyon, permanent sites were chosen that were representative of first three of the following four defined vegetative communities identified by Eddleman and Jaindl (1994) where vegetation type was uniform across the extent of the grid:

1. Combined desert and mountain shrub vegetation – low to mid-elevation communities dominated by *Artemesia nova* and *A. tridentata*.
2. Combined evergreen shrub and piñon-juniper woodland vegetation – mid-elevation communities dominated by *Juniperus*, *Pinus monophylla*, and *Cercocarpus ledifolius*.
3. Mid-elevation forest vegetation – mid-elevation communities dominated by *Abies concolor*, *Populus tremuloides*, and mixed aspen/conifer.
4. High elevation forest vegetation – high-elevation communities dominated by *Picea englemanni*, *Pinus flexilis*, and *Pinus longaeva*.

Traps were checked in the morning. Animals captured in Sherman live traps were identified species and released after marking their fur mid-dorsally with a permanent ink pen. Animals caught in snap traps were processed as voucher specimens in the field. All grid traps were left unset during the daytime, then rebaited and reset in the late afternoon.

With approval from Kristina Heister, Park project coordinator, we made several amendments to the task agreement in 2002 regarding permanent grid sampling in order to maximize our survey efficiency. First, we chose not to establish permanent grids in the 'high elevation forest vegetation' stratum because this zone is known to be depauperate due to historical biogeography. The common high elevation species that are characteristic of such habitat (e.g. *Zapus* and *Clethrionomys*) are known to be absent from the Snake Range. Previous work in high elevation forest had already established a reliable species list and voucher specimens for the Park (Hall 1946, Rickart and Heaney 2000) and we felt establishing a permanent grid in this habitat would result in redundant effort. Second, trapping stations within grids were spaced 10 meters (instead of 15 meters) apart to maintain site control in difficult terrain (e.g., steep, rocky slopes). Our third amendment was to sample each permanent grid only once for at least three consecutive nights. Because of the relatively poor success rate of grid sampling, we chose to abandon this method and redirect our remaining effort to directed trapping in order to best meet our specific project objective (documenting at least 90% of the GRBA mammal species). While grid trapping was not effective for achieving our primary sampling goal, it did meet an ancillary objective of the task agreement to set-up a sampling procedure that could be used in future routine monitoring by the Park staff. In 2004, Park staff did initiate grid trapping at sites along Lehman Creek (the general results of which are reported below).

Directed trapping

The targeted objective of our task was best achieved using directed trapping techniques. This approach, which is standard for museum surveys, involves trapping in a range of local microhabitats with several types of traps in order to maximize the rate of species detection. Many of the animals captured are retained as voucher specimens for positive identification and further study. Directed trapping is subjective in that it involves investigator bias toward placing traps in what are assumed to be productive sites, and it employs a mixed strategy for purposefully targeting different species. We considered directed trapping the best approach for accomplishing

our primary project goal of documenting at least 90% of the Park mammal species. Directed trapping is also effective in assessing patterns of local diversity and relative abundance of different species, and in providing general information on habitat preferences of different species (Wilson et al. 1996). Furthermore, it had the added advantage of being the same general approach used in early surveys. Because of this consistency in methodology, survey data could be compared longitudinally and regionally with high confidence.

We used a mixture of Museum Special snap traps and Sherman live traps to capture small rodents and small pitfall traps to capture shrews. On occasion, we set Victor rat traps and Tomahawk or Havahart live traps to target larger rodents and small carnivores, and McAbee traps for pocket gophers. Separate trap transects were set in lines of between 5 to 50 traps in areas of relatively uniform habitat and were operated for 3 to 5 consecutive nights. Relative trapping effort was measured in trap-nights (1 trap-night = 1 trap set for 24h). Traps were set in runways, beside fallen logs, by burrow openings, or in other locations with signs of small mammal activity. Traps set for rodents were baited with a mixture of oatmeal and peanut butter (snap traps) or mixed bird seed (live traps). Traps set for carnivores were baited with canned cat food or tuna. Pitfall traps were left unbaited. All traps were checked in the morning and rebaited in the late afternoon. Live-trapped animals were marked and released at the point of capture after positive species identification. Snap-trapped animals were retained as voucher specimens.

Opportunistic data collection

This category encompasses all information collected through non-targeted, opportunistic means, including salvaged dead animals, visual observations, and collection of diagnostic species sign (scats, skeletons, etc.). We include information gathered by us during our field surveys, as well as records obtained from GRBA staff. When reliable, these records are useful in establishing presence/absence of certain species within the Park (particularly larger species and elusive species poorly documented through trapping). We ranked the reliability of records as follows (ranging from most to least credible): actual specimens with locality data, photographic evidence with locality data, unambiguous secondary sign (scat or track), first-hand visual observations, and second-hand reports of visual observations. For observations, we give the most credence to reports from trained professionals and for cases involving repeated observation of unambiguously identifiable species (i.e., those not easily confused with others).

RESULTS AND DISCUSSION

Results of search for historical records

We located 526 historical specimen records from the Park region representing 33 species of mammals other than bats (Appendix 1). Of these, 383 specimens (72.8%) representing 31 species are clearly from within the Park boundaries. The majority of these records (481) are from the MVZ collections and most of these (468 specimens; 88.5% of the total) were collected between 1929 and 1938 (primarily from localities within the Park along the Baker and Lehman creek drainages).

Results of 2000, 2002-2004 field surveys

Summary of field effort

Fieldwork conducted in July 2000 involved trapping at 12 general localities within the Snake Creek and Baker Creek drainages, and 2 localities east of the Park boundary (Fig. 1). Most of these sites were in areas intensively worked by MVZ field crews 65 to 70 years earlier. In 2002 we surveyed multiple sites at 4 general localities in Snake Creek and Strawberry Creek canyons and in 2003 we worked at sites in Big Wash, near Pyramid Peak, and the Mount Washington-Lincoln Peak area (Fig. 1). Collectively, these recent surveys covered the broadest possible elevation range in the Park and included a broad spectrum of habitats (Appendix 2).

Cumulatively, more than 1,000 person-hours of fieldwork and 4,379 trap-nights yielded 642 small mammal captures. Roughly half of this effort (2,019 trap-nights and 330 captures) was expended during the 2002-2003 fieldwork conducted under this contract. From all recent surveys, a total of 520 voucher specimens were prepared (including those obtained through salvage), representing a total of 26 species (Appendix 3).

Comparison of grid trapping and directed trapping

In June-August 2002, we conducted grid trapping at 8 sites in the lower and upper Snake Creek drainage and at 3 sites in the Strawberry Creek drainage in communities dominated by sagebrush, piñon-juniper, and Englemann spruce. In a total of 630 trap-nights we captured 50 individuals representing 6 species (Appendix 4).

In July and August 2004, Bryan Hamilton and GRBA staff conducted grid trapping at 10 sites in the Lehman Flat area north and east of the Lehman Caves visitor's center (ca. 6800-7000 ft). A total of 1,929 trap-nights yielded 299 total captures (116 individuals) representing 7 identified species (Appendix 5). Voucher specimens were not retained.

Altogether, 2,559 trap-nights of grid trapping captured 166 individuals (6.5% trap success overall, not including recaptures) and documented a total of 8 species. A roughly comparable amount of directed trapping within the Park (3,172 trap-nights) yielded 557 individuals (17.6% trap success overall) representing a total of 20 species (Table 1). Overall capture success of directed trapping was more than twice that of grid trapping. More importantly, directed trapping was more effective than grid trapping in determining species richness, yielding 2.5 times as many species. Although directed trapping was conducted over a broader elevation range, this did not contribute to the disparity in either trap success or species detection. The differences reflect the fact that directed trapping utilizes a mixture of traps set in a broader range microhabitats and targets species such as shrews and pocket gophers that are not captured in live-trap grids.

Patterns of relative abundance and species richness

Recent surveys have significantly extended the geographic coverage of occurrence records within the Park (Fig. 1) and provided new information on the elevational distributions of individual species (Table 2). These records allow us to examine patterns of species richness across the full elevation gradient in the Park region. Combined historical and recent occurrence records for 36 small and medium-sized mammals are shown in Figure 2, with records grouped by 500 feet elevation intervals. Species in the large category were excluded because they potentially occur over the entire elevation gradient and would therefore add little to the analysis. Species richness of 24 species within the mid-elevation zone (mixed desert shrub and piñon-juniper woodland), attenuated slightly to 21 species in both low elevation (desert shrub) and high elevation (subalpine forest and meadow) zones, and drops dramatically to 11 species in the alpine zone. A mid-elevation peak in abundance is common in small mammal assemblages. However, because the Snake Range is a biogeographic isolate it lacks many of the species that inhabit higher elevations elsewhere in the mountain west. As a result, the peak in species richness occurs at a lower mid-elevation than in, for example, the Uinta (Rickart 2000).

The assemblage of Park mammals includes some species that have relatively narrower elevation ranges (e.g., *Tamias dorsalis*, *Peromyscus crinitus*, and most of the heteromyid rodents). These tend to be species that are restricted to areas with particular substrate or plant assemblages. Several Park species have broad elevation ranges (e.g. *Sorex vagrans*, *Tamias umbrinus*, *Peromyscus maniculatus*, *Microtus longicaudus*). Most of these are ecological generalists that inhabit a wide variety of microhabitats. As discussed below, some of these species have expanded their local distributions upward into higher elevation habitat in the absence of more specialized high elevation species.

The directed trapping conducted for our primary inventory surveys does not provide direct information about population densities. However, this method does provide information on relative abundance of different species. The number of specimens documented from historical sources (largely obtained through similar directed trapping programs) can be used as a general indication of relative abundance. For a subgroup of 24 species of shrews and rodents in the small and medium sized categories (i.e., those that are readily surveyed through trapping), the number of voucher specimens from recent and historical surveys are shown in Figure 3, with records grouped by 500 feet elevation intervals. The interval totals are highly variable indicating unevenness in the amount of investigator effort at each gradient interval. In particular, there has

been much less relative trapping effort at the highest elevations in the Park. Despite this difference, the data are sufficient to determine the basic pattern of relative abundance across elevation. One species, the deer mouse, (*Peromyscus maniculatus*) stands out as abundant over most of its elevation range, accounting for between 12.5 and 74% of the total captures within each elevation zone. Several other species are moderately common across much of their distributions (e.g. *Sorex vagrans*, *Tamias umbrinus*, and *Perognathus parvus*). At the opposite extreme are apparently rare species represented by fewer than 10 specimens or captures (e.g. *Sorex palustris*, *Sorex tenellus*, and *Lemmys curtatus*). In general, there appears to be a direct relationship between relative abundance and elevation range of species.

Results of opportunistic data collection

A total of 23 specimens representing 11 species were obtained through salvage of dead animals or through incidental capture in reptile pitfall arrays. All were prepared as voucher specimens and are included in Appendix 3 where they are noted as opportunistic. Included among these specimens are the only Park vouchers for three species: gray fox (*Urocyon cinereoargenteus*), yellow-bellied marmot (*Marmota flaviventris*), and northern grasshopper mouse (*Onychomys leucogaster*).

Records of visual observations, tracks, scat, and other diagnostic sign, were obtained for 30 species (Appendix 6). These records include general results of targeted surveys by GRBA staff (for predators and marmots), as well as second-hand reports from staff and visitors compiled by Allan (2004).

Inventory Completeness of Mammals other than bats

For mammals other than bats, a total of 46 species have been recorded within the Park (Table 3). Of these 37 are documented by voucher specimens and 9 are based on diagnostic sign, unambiguous (but unvouchered) trapping record, or multiple sightings. An additional 10 species potentially occur in the Park with varying probabilities (Table 4). Only these, only 1 species (*Sorex merriami*) has a high probability of present occurrence, while 4 others (*Brachylagus idahoensis*, *Sylvilagus auduboni*, *Chaetodipus formosus*, and *Perognathus longimembris*) have low to moderate probabilities based on records from the region and the availability of suitable habitat within the Park. The remaining 5 species have very low probability of occurrence but are included on the basis of regional records or possibility that they have some potential to move into the region in the future. In addition, there are 9 species of Recent (living) mammals that have been reported from local prehistoric sites are now extinct in the Park region (Table 5). Detailed information on all species is presented in the form of a synopsis (Appendix 7).

From these data, we estimate that between 47 and 51 species of non-volant mammals currently occur within the Park. Of these, 46 (90-98%) have been documented. This includes 26 (90-97%) of the 27 to 29 species in the small (i.e., "trappable") size category, and 20 (91-100%) of the 20 to 22 medium-sized and large species. On the basis of these calculations, our inventory meets the predetermined goal of documenting 90% of the non-volant species in the Park.

Adequacy of sampling and limitations of data analysis

Although we did not search some major collections for historical records (most notably the Smithsonian Institution), we believe there are few, if any, missing records from this report. Prior to our 2000, 2002, and 2003 surveys, the only major fieldwork in the Park region had been conducted by the MVZ in the 1920's and 30's and all of the specimen records from that work were accessible to us through MaNIS (2004). Earlier records of importance (including any housed at the Smithsonian) were reported by Hall (1946). Furthermore, it is likely that any additional historic records would simply duplicate those from the MVZ.

Museum records are invaluable resources for investigating changes in population and community structure. However, there are limitations to how these data can be utilized and interpreted. Fortunately, most of the historic records from the Park region (more than 90%) are from one source, the MVZ, and most of these stem from surveys conducted over a ten year period (1929-1938). This is advantageous for several reasons. First, most of the locality information is accurate and relatively detailed so that previously sampled sites can be relocated with some precision. Second, the general survey methods used by MVZ field zoologists are well known (Hall 1946, 1981) and comparable to those used in recent

surveys. Finally, and most importantly, the records are from a relatively narrow time period and therefore can be treated as a homogeneous temporal sample.

Vouchered museum records are unimpeachable factual evidence of occurrence. Moreover, voucher records for different species can be assembled for particular sites to provide information on community composition. Although we do not have direct information on sampling effort (i.e., actual number of trap-nights) or actual trapping results (capture frequencies) for the MVZ surveys, numbers of specimens do provide some estimate of relative abundance. MVZ field crews sampled the entire community spectrum and were interested in obtaining representative specimens and information on all species (Hall 1946). Specimen preparation is laborious and time-consuming, and was particularly so in the days of the MVZ surveys when virtually all specimens were prepared as study skins. It is safe to assume that uncommon or rare animals were saved whenever and wherever they were collected and, therefore, voucher records accurately reflect survey results for these species. For common species (e.g., *Peromyscus maniculatus*), perhaps only a subset of each day's catch would have been prepared, but in most instances they would be represented by larger relative numbers. Although we lack direct information on habitat conditions 65-70 years ago, it is possible to make some general inferences based on the reconstructed historical assemblages and our understanding of the habitat preferences of the various species

Biogeography and community structure

Although a relatively large number of species have been documented in the Park and surrounding areas (Tables 3 & 4), there are fewer species of mammals occupying the southern Snake Range that would be expected based on current habitat diversity (Appendix 2) and the pool of potential species occurring within the broader intermountain region. In particular, many species that could occur at higher elevations are not present. This pattern, which is generally reflected among the isolated mountain ranges of the Great Basin, was the primary empirical basis for the theory of faunal relaxation (Brown 1971, 1978). Faunal relaxation is an area-dependent phenomenon that, in the present context, involves selective extinction of high elevation montane (or "boreal") species that require wet habitats. Theoretically, the shift toward warmer and drier conditions following the Wisconsin glaciation (approximately 30-20,000 years ago, Grayson 1993) first reduced and then eliminated dispersal corridors, isolating local populations. Ultimately, areas of suitable habitat for mesic species were reduced to a point during the mid-Holocene altithermal (approximately 15-10,000 years ago, Grayson 1993) that viable populations could not be sustained. The prehistoric record indicates that small mammal species diversity within the Park region has indeed been reduced since the end of the Pleistocene (Table 5). However, we now understand that Brown's (1971, 1978) model was an over-simplification. While there have been repeated cycles of extinction for some montane species, there have also been cases of subsequent recolonization of isolated montane systems (Grayson 1993, Grayson and Madsen 2000, Lawlor 1998).

Furthermore, there are several montane mammals (e.g. *Tamiasciurus hudsonicus*, *Glaucomys sabrinus*, *Microtus richardsoni*, *Clethrionomys gapperi*, *Zapus princeps*) that are not found in the Park despite the fact that suitable habitat is plentiful. Although some may have been present in the past but have yet to be documented from prehistoric sites, these species appear to have failed to colonize the Snake Range during the late Pleistocene when conditions would have been the most favorable for immigration across intervening lowlands (Rickart 2001).

Despite the fact that the Park is depauperate with respect to boreal mammals, the high elevation communities are hardly barren. In addition to species that normally have very broad habitat tolerances and elevation ranges, a number of others that are normally restricted to low or mid-elevations in mountains with "saturated" local faunas have expanded upward in the absence of their better-adapted montane relatives (Rickart 2001). Within the Park, this phenomenon species such as *Sorex vagrans*, *Lepus californicus*, *Spermophilus variegatus*, and *Thomomys talpoides*, illustrate this phenomenon (Fig. 2).

The mammal fauna of the Park is highly dynamic and has been shaped by ongoing colonization, selective extinction, and shifting local community structure. In the future, these processes will continue to influence the Park's biota, especially with the important addition of human activities.

Recent faunal change

The first humans may have arrived in the Park region as early as 10,000 years ago (GRBA website), and prehistoric people undoubtedly had a major impact on natural communities. Some species of late Pleistocene - early Holocene megafauna formerly present in the region (e.g., horses, camels, bison; Jefferson et al., 2004) may have become extinct through human agency (Grayson, 1993). There is evidence of ancient fires throughout the Park and anecdotal ethnographic accounts that local people used fire to modify habitat for hunting or agriculture (J. Sirotnak, personal communication, 2000). The arrival of European-American settlers in the mid-19th century led to hunting with firearms, logging, mining, modification of watersheds, introduction of livestock and exotic plants, and active suppression of natural fires. Such activities had both direct and indirect impact on wildlife. By the early 20th century several large mammals had disappeared from the Park region. All but one of these (the gray wolf) have since been reintroduced or have recolonized without human assistance.

The rich historical data on the mammals of the Park region provide a rare opportunity to examine potential changes in community structure during the past century. We are fortunate to have fairly precise information during a relatively brief time period from long enough ago (65-70 years) to make some informative comparisons with the present. We examined groups of local sampling sites located within each of the three elevation zones that we defined based on general vegetation type (see Study Area section). These included: 1) a group of low elevation sites (5300-6000 ft.) encompassing valley floor and bajada desert shrub communities immediately east of the Park, 2) a group of mid-elevation collecting sites located along Baker Creek between 6500 and 7500 ft., and 3) a group of high elevation localities from the upper portions of Lehman Creek to its headwaters in the vicinity of Stella Lake (8200-10500 ft.). Assembling records by zone allowed us to compare our survey results with the historic community compositions we reconstructed from the MVZ records. We limit our comparisons to species in the "small" body size category (< 500 g) inventoried both historically and recently with standard small mammal traps. We excluded shrews captured through pitfall sampling since that technique was unknown to early collectors. Our general interpretation of differences in the historic and current assemblages is based on presence or absence of species and rough estimates of relative abundance.

Comparison of the low elevation data suggests that changes in community composition have occurred over the past 70+ years (Table 6). For many species, numbers of specimens are small so some apparent temporal differences are almost certainly due to sample size. The presence of the montane vole (*Microtus montanus*) in the historical sample suggests that MVZ crews did some trapping in riparian habitat (which we did not sample in this zone). The chisel-toothed kangaroo rat (*Dipodomys microps*), by far the most abundant species in 1929, is still among the most common species today. Surprisingly, the Great Basin pocket mouse (*Perognathus parvus*), the most abundant species in our recent surveys, was not recorded in this zone in 1929, nor was Ord's kangaroo rat (*Dipodomys ordii*) or the deer mouse (*Peromyscus maniculatus*). The latter's complete absence from the early sampling is unlikely since it was so abundant elsewhere, and specimens may have been discarded. The presence of a few least chipmunks (*Tamias minimus*) in 1929, a species not recorded recently, is perhaps meaningful when considered along with the mid-elevation comparison. We believe these differences may reflect subtle shifts in plant community composition within this zone.

The mid-elevation comparison shows a dramatic shift in community composition (Table 6). Four of the five most abundant species in 1929, the least chipmunk (*Tamias minimus*), Great Basin pocket mouse (*Perognathus parvus*), bushy-tailed woodrat (*Neotoma cinerea*), and desert woodrat (*Neotoma lepida*), were not recorded in 2000. Two species present in the recent survey, the Uintah chipmunk (*Tamias umbrinus*) and piñon mouse (*Peromyscus truei*), were not recorded in 1929 despite what appears to be greater relative effort in the early survey (based on total sample sizes). We believe that most of these compositional differences reflect a shift from open habitat dominated by sagebrush (preferred by *Tamias minimus* and *Perognathus parvus*) to piñon-juniper woodland (preferred by *Tamias umbrinus* and *Peromyscus truei*). However, because woodrats are habitat generalists their dramatic disappearance is unlikely due to habitat change (see following section).

In contrast to the low and mid-elevation groups, the high elevation comparison shows that the small mammal community has been relatively stable over the 65-70 year interval between survey efforts (Table

6). There appears to have been a decline in the number of golden-mantled ground squirrel (see below). Other differences are most likely due to low overall sample sizes and perhaps a bias against saving specimens of common species in the historical survey.

Mammal species requiring special consideration

Our data indicate that particular species have experienced major declines during the past 70 years. The disappearance of woodrats at mid-elevations is particularly puzzling. Although we have no direct evidence, disease of some sort may be responsible for this. Another species of woodrat, *Neotoma magister*, has experienced a dramatic decline due to infestation by a macroparasitic roundworm (Logiudice 2003). The relative scarcity of golden-mantled ground squirrels, particularly at mid-elevations, may reflect increasing forest density due to fire suppression (Yensen and Sherman 2003). Porcupines appear to have undergone a dramatic reduction, and may now be absent from the. This is particularly notable since it reflects what may be a broad regional decline for this species. The specific factors responsible for these changes are unknown and certainly warrant future investigation.

We have compiled a list of mammal species that we believe are worthy of special consideration (Table 7). In addition to species that have clearly declined historically, it includes important ecological keystone species that influence the structure of local communities, and others that are specialized or ecologically sensitive and are therefore potential indicators of habitat health or change. The list includes some species that are currently subjects of Park monitoring and management programs and others that we believe are logical candidates for such activities (as elaborated in the following section). Further details are presented in the synopsis species accounts (Appendix 7).

RECOMMENDATIONS FOR FUTURE MONITORING AND MANAGEMENT

This project has provided much information that we believe is directly relevant to resource management within the Park. We present the following points as a series of general recommendations.

Riparian management

The reappearance of beaver in the Park region is a major event with respect to natural resource management and one that we believe will result in profound improvements to the general health of riparian communities. Although they may cause management problems in some areas (due to flooding), beaver are invaluable agents for reinvigorating entire watersheds, greatly increasing local habitat diversity and species richness, and generally improving stream hydrology by moderating seasonal cycles of flow to reduce the severity of seasonal flooding and drought. We recommend that reestablishment of beaver in watersheds where they formerly occurred should be made a very high management priority.

Mid-elevation communities

Our comparisons of historical and current survey data (Table 6) support the view that open shrub communities at low to mid-elevations are being replaced by piñon-juniper and mountain mahogany woodland. Management efforts aimed at reversing this trend (either through removal, prescribed burns, or management of natural fires) and encouraging the reestablishment of brush and grassland habitat would benefit a number of mammal and bird species that have apparently declined in recent decades.

Exotic plants

We suspect that the invasion and spread of exotic plants, particularly cheat grass and other weedy annuals, will have an increasingly negative impact on diversity and abundance of small mammals. Exotic annuals alter the fuel base, increasing the frequency and intensity of fires that may impact natural communities throughout the Park. Locally, an increase in exotic annuals is expected to depress certain species, particularly heteromyid rodents (*Perognathus* spp. and *Dipodomys* spp.) while promoting the spread of some grass-loving species (e.g., *Microtus longicaudus* and *Reithrodontomys megalotis*).

Monitoring and management of keystone species

Current efforts by Park staff to monitor carnivores, ungulates, and marmots are important activities that should continue, because such species are ecological "keystones" that influence the broader structure of natural communities. We recommend extending these efforts to include beaver (as discussed above) and possibly porcupine. The potential role of the porcupine in the local dynamics of mid-elevation woodland and alpine forest communities may be worthy of investigation.

Management in the broader context

Animal-oriented management programs usually focus on particular species, for example marmots, bighorn, and sage grouse (GRBA 2003). While it is logical to target particular keystone species in this manner, management programs that integrate activities within particular ecological communities are likely to be more successful and have wider impact (for example, an integrative riparian management program involving beaver, Bonneville cut-throat, and riparian plants). Furthermore, management activities need to extend beyond Park boundaries to account for the full range of regional habitats and natural processes (such as vertical and regional animal migration). This requires inter-agency cooperation, and if possible, eventual extension of Park boundaries to encompass important low elevation habitat.

REVISED PARK MAMMAL LIST

We have compiled a revised comprehensive list of 73 species of mammals, including bats, from the Great Basin National Park region (Appendix 8). This includes 53 species recorded from within the Park and documented either through voucher specimens (as indicated) or through reliable, multiple sightings. The list also includes 20 species (including 10 bats) that have yet to be recorded in the Park but have some probability of occurrence either now or in the near future.

We have dropped the following 11 species that appeared on previous lists (Pfaff, K. 1999; GRBA undated):

1. *Myotis leibii* (taxonomic change, species now recognized as *M. ciliolabrum*)
2. *Ochotona princeps* (prehistorically extinct in Snake Range, no evidence of historic occurrence)
3. *Lepus townsendii* (historically absent, no evidence of former occurrence in Snake Range)
4. *Thomomys talpoides* (historically absent, no evidence of former occurrence in Snake Range)
5. *Phenacomys intermedius* (prehistorically extinct, no evidence of historic occurrence)
6. *Spermophilus beldingi* (historically absent, no evidence of former occurrence in Snake Range)
7. *Spermophilus richardsoni* (historically absent, no evidence of former occurrence in Snake Range)
8. *Zapus princeps* (historically absent, no evidence of former occurrence in Snake Range)
9. *Vulpes macrotis* (taxonomic change, now considered a synonym for *V. velox*)
10. *Gulo luscus* (prehistorically extinct in Snake Range, no credible evidence of historic occurrence)
11. *Martes americana* (historically absent, no evidence of historic occurrence in Snake Range)

We have added the following species: Inyo shrew, *Sorex tenellus* (documented in 2000)

During the course of this project, voucher specimens have been obtained for the following species (previously undocumented by Park vouchers):

1. Inyo shrew (*Sorex tenellus*)
2. Gray fox (*Urocyon cinereoargenteus*)
3. Yellow-bellied marmot (*Marmota flaviventris*)
4. Chisel-toothed kangaroo rat (*Dipodomys microps*)
5. Northern grasshopper mouse (*Onychomys leucogaster*).

ACKNOWLEDGEMENTS

Our initial survey in 2000 was done in collaboration with Larry Heaney of the Field Museum of Natural History, without whom that work, and our subsequent surveys, would not have been possible. We thank Danny Balete, Alex Baugh, Terry Horton, Rob McIntyre, Joe Walsh, and Mike Windham for their energetic assistance with the 2000 survey. We are very grateful for the support and encouragement of the resource management staff at Great Basin National Park (past and present), including Gretchen Baker, Neal Darby, Bryan Hamilton, Joe Sirotnak, Jud Tuttle, and Tod Williams. This project received funding from the National Park Service, Mojave Inventory and Monitoring Network and was supervised by Mojave Network I&M coordinator, Kristina Heister. Great Basin Cooperative Ecosystem Studies Unit Research Coordinator, Herbert C. Frost, facilitated the task agreement.

LITERATURE CITED

- Allan, M. 2004. Report on the Wildlife Observation Reporting System at Great Basin National Park. GRBA unpublished document.
- Baggs, J. E. 1993. Annotated bibliography of biological collections from Great Basin National Park: Volume II-Fauna. Cooperative National Park Resources Unit, University of Nevada, Las Vegas. NPS/WRUNLV/NRTR-93/2 D40. Contribution no. CPSU/UNLV 051/02. 210pp.
- Bat Conservation International. 2004. U.S. Bats by State - Nevada (BCI website) <http://www.batcon.org/discover/species/nv.html>
- Beaver, E. A., P. F. Brussard, and J. Berger. 2003. Patterns of apparent extirpation among isolated populations of pikas (*Ochotona princeps*) in the Great Basin. *Journal of Mammalogy*, 84:37-54.
- Berger, J. and J. D. Wehausen. 1991. Consequences of a mammalian predator-prey disequilibrium in the Great Basin desert. *Conservation Biology*, 5:244-248.
- Bianci, V. 1994. Wolverine. In *The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States*, L. F. Ruggiero, et al. (eds.), pp. 99-127. U.S. Dept. of Agriculture, Forest Service, Technical Report RM-254.
- Brown, J. H. 1971. Mammals on mountaintops: non-equilibrium insular biogeography. *American Naturalist*, 105:467-478.
- Brown, J. H. 1978. The theory of insular biogeography and the distribution of boreal birds and mammals. *Great Basin Naturalist Memoirs*, 2:209-227.
- Eddleman, L. E. and R. G. Jaindl. 1994. Great Basin National Park Vegetation Analysis. Oregon State Cooperative Park Studies Unit. Technical Report NPS/PNROSU/NRTR-94/02. 118 pp.
- Glue, D. E. 1970. Avian predator pellet analyses and the mammalogist. *Mammal Review*, 1:53-62.
- Grayson, D. K. 1981. A mid-Holocene record for the heather vole, *Phenacomys cf. intermedius* in the central Great Basin and its biogeographic significance. *Journal of Mammalogy*, 62:115-121.
- Grayson, D. K. 1983. The paleontology of Gatecliff Shelter: small mammals. In *The Archaeology of Monitor Valley*. 2. Gatecliff Shelter, Thomas, D. (ed.), pp.99-126. American Museum of Natural History.
- Grayson, D. K. 1987. The biogeographic history of small mammals in the Great Basin: observations on the last 20,000 years. *Journal of Mammalogy*, 68:359-375.
- Grayson, D. K. 1993. *The Desert's Past: a natural prehistory of the Great Basin*. Smithsonian Institution Press: Washington D.C.

- Grayson, D. K. and S. D. Livingston. 1993. Missing mammals on Great Basin mountains: Holocene extinctions and inadequate knowledge. *Conservation Biology*, 7:527-532.
- Grayson, D. K., and D. M. Madsen. 2000. Biogeographic implications of recent low-elevation recolonization by *Neotoma cinerea* in the Great Basin. *Journal of Mammalogy*, 81:1100-1105.
- Great Basin National Park. undated. (Park website mammal page).
<http://www.nps.gov/grba/pphtml/subanimals6.html>
- Great Basin National Park. 2003. Superintendent's annual report.
- Hall, E. R. 1946. *Mammals of Nevada*. University of California Press: Berkeley.
- Hall, E. R. 1981. *The mammals of North America*. 2 vols. John Wiley & Sons: New York.
- Heaton, T. H. 1990. Quaternary mammals of the great basin: extinct giants, Pleistocene relicts, and recent immigrants. In *Causes of Evolution: a paleontological perspective*, R. M. Ross and W. D. Allmon (eds.), pp. 422-465. University Chicago Press: Chicago.
- Hoffmeister, D. H. 1981. *Peromyscus truei*. *Mammalian Species*, 161:1-5.
- Jefferson, G. T., H. G. McDonald, & S. D. Livingston. 2004. Catalogue of late Quaternary and Holocene fossil vertebrates from Nevada. Nevada State Museum, Occasional Papers 6.
- Lawlor, T. E. 1998. Biogeography of Great Basin mammals: paradigm lost? *Journal of Mammalogy*, 79:1111-1130.
- LoGiudice, K. 2003. Macroparasite threats to intermediate hosts: The case of the Allegheny woodrat. *Conservation Biology*. 17:358-266.
- Mammal Networked Information System (MaNIS) website. 2004.
<http://elib.cs.berkeley.edu/manis/>
- Mead, E. M., and J. I. Mead. 1989. Snake Creek Burial Cave and a review of the Quaternary mustelids of the Great Basin. *Great Basin Naturalist*, 49(2):143-154.
- Mead, J. I., R. S. Thompson, and T. R. van Devender. 1982. Late Wisconsinan and Holocene fauna from Smith Creek Canyon, Snake Range, Nevada. *Transactions of the San Diego Society of Natural History*, 20(1):1-26.
- Mead, J., C. Bell, and L. Murray. 1992. *Mictomys borealis* (Northern Bog Lemming) and the Wisconsin paleoecology of the east-central Great Basin. *Quaternary Research*, 37(2): 229-238.
- Miller, S. 1979. The archaeological fauna of four sites in Smith Creek Canyon. In *The archaeology of Smith Creek Canyon, eastern Nevada*, D. Tuohy and D. Rendall (eds.), pp. 272-292. Nevada State Museum: Carson City.
- National Park Service. 1999. Guidelines for biological inventories. Inventory and Monitoring Program, National Park Service: Washington, D.C.
- National Park Service. 2001. Mojave Inventory and Monitoring Network Biological Inventory Study Plan. National Park Service: Washington, D.C.
- Pfaff, K. 1999. Annotated list of mammals – Great Basin National Park information summary. On file GRBA RM. 8p.

- Ports, M. A., and P. V. Bradley. 1996. Habitat affinities of bats from northeastern Nevada. *Great Basin Naturalist*, 56:48-53.
- Resources Inventory Committee. 1998. Inventory methods for small mammals: shrews, voles, mice, and rats. Standards for Components of British Columbia's Biodiversity No.31, version 2. Providence of British Columbia.
- Rickart, E. A. 2001. Elevational diversity gradients, biogeography and the structure of montane mammal communities in the intermountain region of North America. *Global Ecology & Biogeography*, 10:77-100.
- Rickart, E. A., and L. R. Heaney. 2000. Non-volant mammals recorded from the south Snake Range and adjacent portions of the Spring and Snake valleys. Unpublished report submitted to Great Basin National Park and Nevada Division of Wildlife.
- Rickart, E. A., and L. R. Heaney. 2001. Shrews of the La Sal Mountains, southeastern Utah. *Western North American Naturalist*, 61: 103-108.
- Rickart, E. A., L. R. Heaney, and R. S. Hoffmann. 2004. First record of *Sorex tenellus* from the central Great Basin. *Southwestern Naturalist*, 49:132-134.
- Sweitzer, R. A., S. H. Jenkins, and J. Berger. 1997. Near-extinction of porcupines by mountain lions and consequences of ecosystem change in the Great Basin desert. *Conservation Biology*, 11:1407-1417.
- US Geological Survey. 2004. Geographic Names Information System (GNIS) Nevada gazetteer. http://geonames.usgs.gov/stategaz/NV_DECI.TXT
- Wilson, D. F. and D. M. Reader (eds.). 1993. *Mammal Species of the World, a Taxonomic and Geographic Reference*, 2nd edition. Smithsonian Institution Press: Washington, D.C.
- Wilson, D. F., F. R. Cole, J. D. Nichols, R. Rudran, and M. S. Foster (eds.). 1996. *Measuring and Monitoring Biological Diversity: standard methods for mammals*. Smithsonian Institution Press: Washington, D.C.
- Yensen, E., and P. W. Sherman. 2003. *Field Guide to the Ground-Dwelling Squirrels of the Pacific Northwest*. U.S. Fish and Wildlife Service: Boise.
- Ziegler, A. 1964. Animal bones from Lehman Caves National Monument. Pp. 42-62 in *The Archaeology at Lehman Caves National Monument*, Rozaire (ed.). Nevada State Museum: Carson City.

Figure 1. Map of Great Basin National Park. Closed black circles represent historic survey sites and open circles represent locations surveyed between 2000-2003.

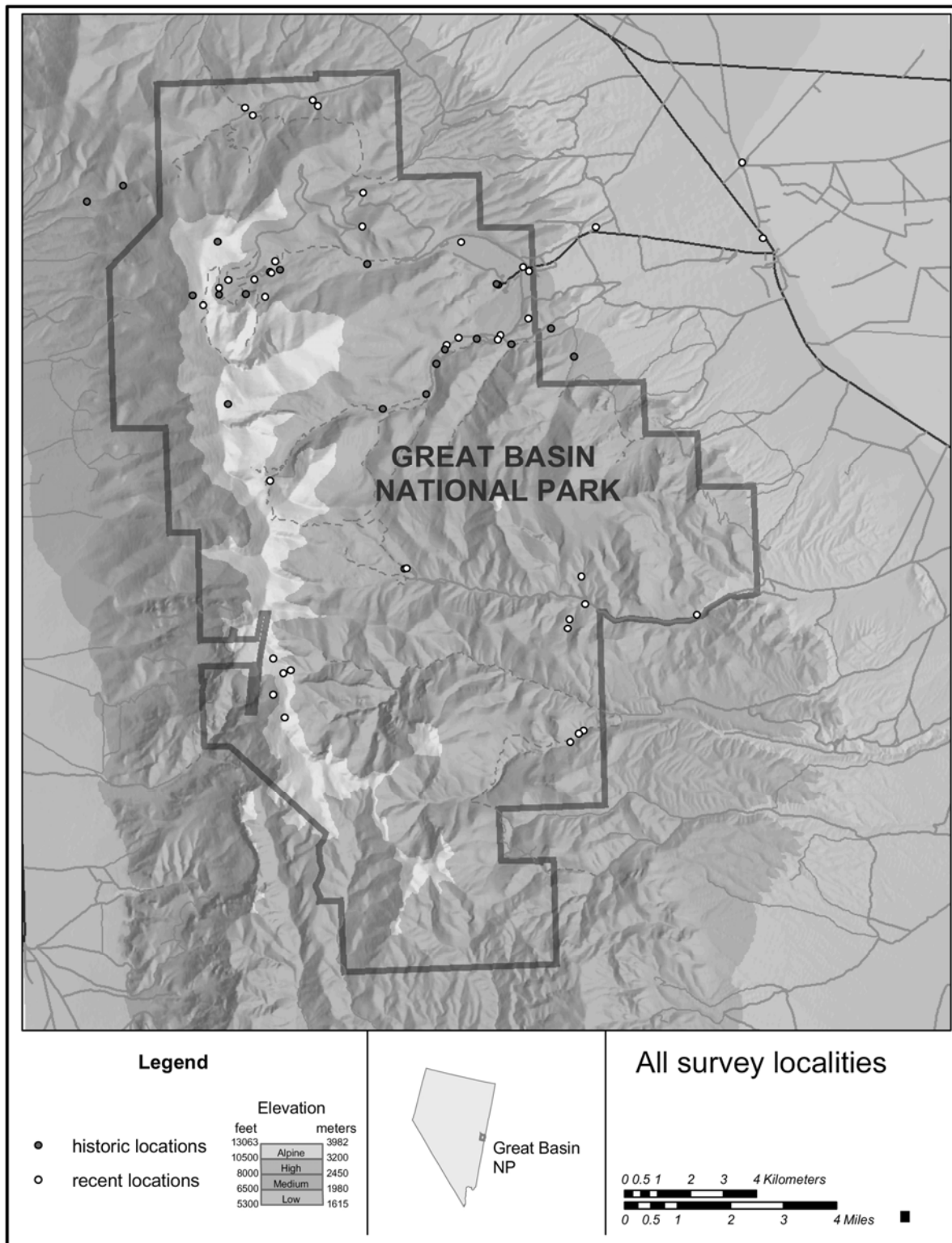


Figure 2. Elevational distribution of small and medium-sized mammals (other than bats) in the Great Basin National Park region. Numbers in bold are captures from recent surveys (2000-2004), numbers in normal type are specimens from historical sources.

Species	Common name	Size group	Low elevation			Mid-elevation			High elevation					Alpine				
			5001-5500	5501-6000	6001-6500	6501-7000	7001-7500	7501-8000	8001-8500	8501-9000	9001-9500	9501-10000	10001-10500	10501-11000	11001-11500	11501-12000	12001-12500	12500-13060
<i>Sorex merriami</i>	Merriam's shrew	small	X															
<i>Sorex palustris</i>	Water shrew	small							X			X			X			
<i>Sorex tenellus</i>	Inyo shrew	small										X						
<i>Sorex vagrans</i>	Vagrant shrew	small				X, X	X	X	X	X, X		X, X	X		X			
<i>Bassariscus astutus</i>	Ringtail	medium				X	X		X									
<i>Mephitis mephitis</i>	Striped skunk	medium										X						
<i>Spilogale putorius</i>	Spotted skunk	medium		X														
<i>Mustela frenata</i>	Long-tailed weasel	small				X			X									
<i>Mustela erminea</i>	Ermine	small								X					X, X			
<i>Sylvilagus nuttallii</i>	Mountain cottontail	medium	X				X		X, X	X								
<i>Lepus californicus</i>	Black-tailed jackrabbit	medium			X	X			X					X				
<i>Tamias dorsalis</i>	Cliff chipmunk	small				X, X	X, X	X										
<i>Tamias minimus</i>	Least chipmunk	small	X	X	X	X	X	X	X, X	X	X							
<i>Tamias umbrinus</i>	Uinta chipmunk	small			X	X	X	X, X	X, X	X	X, X	X, X	X, X	X	X			
<i>Ammospermophilus leucurus</i>	Antelope ground squirrel	small	X		X	X												
<i>Spermophilus lateralis</i>	Golden-mantled ground squirrel	small							X	X			X, X	X, X	X			X
<i>Spermophilus mollis</i>	Piute ground squirrel	small	X	X														
<i>Spermophilus variegatus</i>	Rock squirrel	medium					X, X	X	X		X							
<i>Marmota flaviventris</i>	Yellow-bellied marmot	medium				X	X		X								X	
<i>Perognathus longimembris</i>	Little pocket mouse	small	X	X														
<i>Perognathus parvus</i>	Great basin pocket mouse	small	X	X	X, X	X, X	X, X	X, X	X									
<i>Dipodomys microps</i>	Chisel-toothed kangaroo rat	small	X, X	X	X													
<i>Dipodomys ordii</i>	Ord's kangaroo rat	small	X			X												
<i>Thomomys bottae</i>	Valley pocket gopher	small				X	X		X, X	X		X, X	X					
<i>Reithrodontomys megalotis</i>	Western harvest mouse	small	X	X	X	X, X	X, X	X, X										
<i>Peromyscus crinitus</i>	Canyon mouse	small				X, X	X, X	X										
<i>Peromyscus maniculatus</i>	Deer mouse	small	X		X	X, X	X, X	X, X	X, X	X	X	X, X	X, X	X, X	X, X	X		
<i>Peromyscus truei</i>	Piñon mouse	small	X			X, X	X, X	X	X					X				
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	small	X, X	X														
<i>Neotoma cinerea</i>	Bushy tailed woodrat	small					X	X		X	X			X				
<i>Neotoma lepida</i>	Desert woodrat	small		X	X	X	X, X			X								
<i>Microtus longicaudus</i>	Long-tailed vole	small				X	X	X, X	X	X		X, X	X, X	X, X	X			
<i>Microtus montanus</i>	Montane vole	small	X	X		X	X	X, X	X			X	X					
<i>Lemmys curtatus</i>	Sagebrush vole	small	X				X											
<i>Ondatra zibethicus</i>	Muskrat	medium	X		X													
<i>Mus musculus</i>	House mouse	small		X		X												
Total number of species (in 500 foot interval)			16	11	10	20	19	13	17	11	5	9	7	7	7	1	1	1
Total number of species (by elevation zone)			21			24			21					11				

Figure 3. Numbers of specimens or captures of small mammals (rodents and shrews) from the Great Basin National Park region by elevation¹. Numbers in bold are captures from recent surveys (2000-2004), numbers in normal type are specimens from historical sources.

Species	Common name	Low elevation			Mid-elevation			High elevation					Alpine					Totals
		5001-5500	5501-6000	6001-6500	6501-7000	7001-7500	7501-8000	8001-8500	8501-9000	9001-9500	9501-10000	10001-10500	10501-11000	11001-11500	11501-12000	12001-12500	12500-13060	
<i>Sorex merriami</i>	Merriam's shrew	1																1
<i>Sorex palustris</i>	Water shrew							1			1			3				5
<i>Sorex tenellus</i>	Inyo shrew										1							1
<i>Sorex vagrans</i>	Vagrant shrew				1, 2	5	2	5	2, 7		1, 21	3		4				19
<i>Tamias dorsalis</i>	Cliff chipmunk				2, 3	5, 1	1											1
<i>Tamias minimus</i>	Least chipmunk	2	3	10	6	9	2	2, 3	4	1								37
<i>Tamias umbrinus</i>	Uinta chipmunk			2	1	7	4, 6	6, 3	13	1, 12	1, 10	13, 18	15	1				39
<i>Ammospermophilus leucurus</i>	Antelope ground squirrel	2		1	3													6
<i>Spermophilus lateralis</i>	Golden-mantled gnd squirrel							5	5			4, 1	7, 2	1				11
<i>Perognathus longimembris</i>	Little pocket mouse	1	2															3
<i>Perognathus parvus</i>	Great basin pocket mouse	1	1	3, 13	4, 2	16, 1	5, 2	1										3
<i>Dipodomys microps</i>	Chisel-toothed kangaroo rat	1, 8	15	4														19
<i>Dipodomys ordii</i>	Ord's kangaroo rat	4			1													5
<i>Reithrodontomys megalotis</i>	Western harvest mouse	1	4	2	2, 7	6, 3	1, 2											7
<i>Peromyscus crinitus</i>	Canyon mouse				2, 2	4, 2	1											1
<i>Peromyscus maniculatus</i>	Deer mouse	3		6	20, 10	17, 50	9, 23	4, 24	21	19	1, 41	5, 27	6, 60	1, 3	1			50
<i>Peromyscus truei</i>	Piñon mouse	2			3, 1	3, 17	2	1					2					7
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	6, 2	6															6
<i>Neotoma cinerea</i>	Bushy tailed woodrat					20	2		11	1			1					35
<i>Neotoma lepida</i>	Desert woodrat		1	2	4	20, 1			1									8
<i>Microtus longicaudus</i>	Long-tailed vole				5	1	4, 4	2	3		2, 6	1, 6	2, 4	4				15
<i>Microtus montanus</i>	Montane vole	2	3		8	2	1, 2	3			2	1						21
<i>Lemmiscus curtatus</i>	Sagebrush vole	2				2												4
<i>Mus musculus</i>	House mouse		3		1													4
Total number of specimens (in 500 foot interval)		14, 24	38	15, 28	57, 33	109, 83	29, 44	21, 39	60, 7	1, 33	7, 80	23, 56	16, 83	14, 3	1	0	0	
Total number of specimens (in elevation zone)		67, 52			195, 160			112, 215					31, 87					
Total number of species (in elevation zone)		16			17			13					8					

¹ Includes those species that are captured by standard snap and pitfall traps. Excludes four small mammal species from Figure 2: *Mustela frenata*, *Mustela erminea*, *Spermophilus mollis*, and *Thomomys bottae*.

Table 1. Comparison of results from grid and directed trapping in Great Basin National Park during 2000-2004.

Grid trapping (sorted by site number)					
	Elevation (feet)	Trap-nights	Number of individuals	Number of species	Overall trap success (%)
2002 grid sites					
0001 (Snake)	7260	72	1	1	1.4
0002 (Snake)	7478	72	2	1	2.8
0003 (Snake)	8350	54	7	3	13.0
0004 (Snake)	7697	54	3	3	5.6
0005 (Snake)	6305	54	3	1	5.6
1001 (Snake)	6889	54	1	1	1.9
1002 (Snake)	7451	54	5	3	9.3
1003 (Snake)	8350	54	7	2	13.0
1004 (Strawberry)	7496	54	5	2	9.3
1005 (Strawberry)	7775	54	8	1	14.8
1006 (Strawberry)	7920	54	8	2	14.8
2002 subtotals		630	50	6	7.9
2004 Lehman Flat grids	6800-7200	1929	116	7	6.0
Total grid trapping		2559	166	8	6.5

Directed trapping (sorted by elevation)					
	Elevation (feet)	Trap-nights	Number of individuals	Number of species	Overall trap success (%)
2002-2003 surveys					
Administrative Site (2002)	5344	39	1	1	2.6
Lehman Creek pitfalls (2002)	6575	62	1	1	1.6
Lower Snake Creek (2002)	7150-7600	202	10	1	5.0
Upper Strawberry Creek (2002)	7966	122	10	6	8.2
Upper Snake Creek (2002)	8350-8525	252	30	7	11.9
Big Wash (2003)	6838-7075	212	54	7	25.5
Pyramid Peak (2003)	10660	112	36	4	32.1
Washington-Lincoln peaks (2003)	10225-11226	388	138	3	35.6
2002-2003 subtotals		1389	280	14	20.2
2000 (within Park only)	6580-11100	1783	277	15	15.5
Total directed trapping		3172	557	20	17.6

Table 2. Elevation range records of mammals (excluding bats) from the Great Basin National Park. Significant range extensions from recent surveys are indicated in bold.

Species	Common name	Elevation records (in feet)		
		pre-2000 records	2000 survey	2002-2004 surveys
<i>Sorex palustris</i>	Water shrew	8400, 11100	9750	none
<i>Sorex tenellus</i>	Inyo shrew	none	9900	none
<i>Sorex vagrans</i>	Vagrant shrew	6600-11100	7450-10350	6575-8525
<i>Canis latrans</i>	Coyote	8000	none	7260*-11400*
<i>Urocyon cinereoargenteus</i>	Gray fox	6700	7100*	10533
<i>Vulpes velox</i>	Kit fox	none	none	(park sightings)*
<i>Bassariscus astutus</i>	Ringtail	none	6850*	7500*
<i>Mephitis mephitis</i>	Striped skunk	none	9850*	(park sightings)*
<i>Mustela erminea</i>	Ermine	8675, 11100	none	11220*
<i>Mustela frenata</i>	Long-tailed weasel	6600-8500	none	(park sightings)*
<i>Spilogale putorius</i>	spotted skunk	8000	none	(park sightings)*
<i>Taxidea taxus</i>	Badger	8100	6150*	5340*
<i>Lynx rufus</i>	Bobcat	8000	7500*	(park sightings)*
<i>Puma concolor</i>	Mountain lion	none	7080*	(park sightings)*
<i>Sylvilagus nuttallii</i>	Mountain cottontail	7200-8675	8500	5430
<i>Lepus californicus</i>	Black-tailed jackrabbit	none	6150*-8500*	10600*
<i>Tamias dorsalis</i>	Cliff chipmunk	6700-7500	7080*	6600- 7697
<i>Tamias minimus</i>	Least chipmunk	5800-8675	9200	8365
<i>Tamias umbrinus</i>	Uinta chipmunk	6200-11100	7550-11000	7775-10817
<i>Ammospermophilus leucurus</i>	Antelope ground squirrel	6900-7000	5275, 6150	none
<i>Spermophilus lateralis</i>	Golden-mantled ground squirrel	8200-11200	10200- 13063*	10200*
<i>Spermophilus mollis</i>	Piute ground squirrel	5800	5275*	5345*
<i>Spermophilus variegatus</i>	Rock squirrel	7300-8450	7080- 9200*	7600-7800*
<i>Marmota flaviventris</i>	Yellow-bellied marmot	12200*	7500*	7000-8500*
<i>Perognathus parvus</i>	Great basin pocket mouse	5800-8300	5275, 6580	6305-7950
<i>Dipodomys microps</i>	Chisel-toothed kangaroo rat	5220-5300	5275, 6150	5340
<i>Dipodomys ordii</i>	Ord's kangaroo rat	6850	5275	none
<i>Thomomys bottae</i>	Valley pocket gopher	6600-10500	8500*, 9850*	8350
<i>Castor canadensis</i>	Beaver	none	(7000* old sign)	6850*
<i>Reithrodontomys megalotis</i>	Western harvest mouse	5800-7700	6150-7450	5340-7950
<i>Peromyscus crinitus</i>	Canyon mouse	6700-7700	none	6850-7450
<i>Peromyscus maniculatus</i>	Deer mouse	6600-11500	5275-11000	5340-11226
<i>Peromyscus truei</i>	Piñon mouse	6700-7500	6700-7000	5340-10700
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	5220-5800	none	5340
<i>Neotoma cinerea</i>	Bushy-tailed woodrat	7200-10800	9200	none
<i>Neotoma lepida</i>	Desert woodrat	5800-8675	6150	7010
<i>Microtus longicaudus</i>	Long-tailed vole	8000-11100	6580-11100	7010-10660
<i>Microtus montanus</i>	Montane vole	5800-9650	7160-10200	7950-8365
<i>Lemmys curtatus</i>	Sagebrush vole	5500, 7200	none	none
<i>Ondatra zibethicus</i>	Muskrat	none	none	(park sightings)*
<i>Mus musculus</i>	House mouse	5300	none	ca. 6800*
<i>Erethizon dorsatum</i>	Porcupine	7300-10600	none	Snake Valley*
<i>Cervus elaphus</i>	Wapiti	none	none	(park sightings)*
<i>Odocoileus hemionus</i>	Mule deer	8800, 9000	(park sightings)*	6150*-12000*
<i>Antilocapra americana</i>	Pronghorn	sightings	(park sightings)*	(park sightings)*
<i>Ovis canadensis</i>	Bighorn sheep	9000 ^S , 12000 ^S	none	(park sightings)*

* sight or sign record

^S old salvaged specimen

Table 3. Mammal species (other than bats) documented from within Great Basin National Park boundaries.

Species	Common name	Size group ¹	Documentation	Elev. range ²	Source(s)	Comments
<i>Sorex palustris</i>	Water shrew	small	voucher specimens	low-high	MVZ & FMNH collections	uncommon, restricted to riparian habitat
<i>Sorex tenellus</i>	Inyo shrew	small	voucher specimen	mid-high	UMNH collection	uncommon or rare, possibly restricted to rocky habitat
<i>Sorex vagrans</i>	Vagrant shrew	small	voucher specimens	low-high	MVZ & UMNH collections	widespread and locally common
<i>Canis latrans</i>	Coyote	large	voucher specimen; sign	low-high	MVZ collection; this report	probably common
<i>Urocyon cinereoargenteus</i>	Gray fox	large	voucher specimens	low-high	MVZ & UMNH collections	common at low elevations
<i>Vulpes velox</i>	Kit fox	large	multiple sightings	low-mid	GRBA staff	probably common at low elevations
<i>Bassariscus astutus</i>	Ringtail	medium	voucher specimen	low-mid	GRBA collection	probably common at low elevations
<i>Mephitis mephitis</i>	Striped skunk	medium	multiple sightings	low-high	Rickart & Heaney 2000	probably common at low elevations
<i>Mustela erminea</i>	Ermine	small	voucher specimens	mid-high	MVZ collection	most common at mid-high elevations
<i>Mustela frenata</i>	Long-tailed weasel	small	voucher specimens	low-high	MVZ	most common at low elevations
<i>Spilogale putorius</i>	spotted skunk	medium	published records, sightings	low-mid	Hall 1946; GRBA staff	probably common at low elevations
<i>Taxidea taxus</i>	Badger	large	voucher specimen	low-high	MVZ	most common at low elevations
<i>Lynx rufus</i>	Bobcat	large	voucher specimens	low-high	MVZ	probably moderately common
<i>Puma concolor</i>	Mountain lion	large	voucher specimens	low-high	MVZ collection; GRBA staff	probably moderately common
<i>Sylvilagus nuttallii</i>	Mountain cottontail	medium	voucher specimens	low-high	MVZ & UMNH collections	common
<i>Lepus californicus</i>	Black-tailed jackrabbit	medium	sightings	low-high	Rickart & Heaney 2000; this report	most common at low elevations
<i>Tamias dorsalis</i>	Cliff chipmunk	small	voucher specimens	low-mid	MVZ & UMNH collections	uncommon
<i>Tamias minimus</i>	Least chipmunk	small	voucher specimens	low-high	MVZ & UMNH collections	uncommon, primarily sagebrush. Formerly more common
<i>Tamias umbrinus</i>	Uinta chipmunk	small	voucher specimens	low-high	MVZ & UMNH collections	abundant in virtually all habitats
<i>Ammospermophilus leucurus</i>	White-tailed antelope squirrel	small	voucher specimens	low	MVZ & UMNH collections	uncommon at low elevations
<i>Spermophilus lateralis</i>	Golden-mantled ground squirrel	small	voucher specimens	mid-high	MVZ & UMNH collections	common at high elevations, uncommon elsewhere
<i>Spermophilus mollis</i>	Piute ground squirrel	small	sign; voucher specimens	low	this report; MVZ collection	administrative site; possibly elsewhere at lowest elevations
<i>Spermophilus variegatus</i>	Rock squirrel	medium	voucher specimens	low-mid	MVZ & UMNH collections	common at low to mid elevations
<i>Marmota flaviventris</i>	Yellow-bellied marmot	medium	voucher specimens	mid-high	MVZ & UMNH collections	common locally at mid elevations
<i>Perognathus parvus</i>	Great basin pocket mouse	small	voucher specimens	low-mid	MVZ & UMNH collections	locally common at low-mid elevations
<i>Dipodomys microps</i>	Chisel-toothed kangaroo rat	small	voucher specimens	low	MVZ & UMNH collections	uncommon, lowest elevation
<i>Dipodomys ordii</i>	Ord's kangaroo rat	small	voucher specimens	low	MVZ & UMNH collections	rare, lowest elevation
<i>Thomomys bottae</i>	Valley pocket gopher	small	voucher specimens	low-high	MVZ & UMNH collections	most common at low elevations
<i>Castor canadensis</i>	Beaver	large	sighting	mid	GRBA staff	historically extinct, reestablished
<i>Reithrodontomys megalotis</i>	Western harvest mouse	small	voucher specimens	low-mid	MVZ & UMNH collections	locally common, grassy habitat
<i>Peromyscus crinitus</i>	Canyon mouse	small	voucher specimens	low-mid	MVZ & UMNH collections	uncommon, rocky habitat
<i>Peromyscus maniculatus</i>	Deer mouse	small	voucher specimens	low-high	MVZ & UMNH collections	abundant in virtually all habitats
<i>Peromyscus truei</i>	Piñon mouse	small	voucher specimens	low-high	MVZ & UMNH collections	locally common in piñon juniper, rare at high elevations
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	small	voucher specimens	low	MVZ & UMNH collections	uncommon or rare at low elevations
<i>Neotoma cinerea</i>	Bushy-tailed woodrat	small	voucher specimens	mid-high	MVZ & UMNH collections	locally uncommon, formerly more common
<i>Neotoma lepida</i>	Desert woodrat	small	voucher specimens	low-mid	MVZ & UMNH collections	common at low elevations, formerly more common
<i>Microtus longicaudus</i>	Long-tailed vole	small	voucher specimens	low-high	MVZ & UMNH collections	common in grassy areas, less common elsewhere
<i>Microtus montanus</i>	Montane vole	small	voucher specimens	low-high	MVZ & UMNH collections	uncommon to common, restricted to riparian areas
<i>Lemmys curtatus</i>	Sagebrush vole	small	voucher specimens	low-mid	MVZ collection	uncommon or rare, restricted to sagebrush
<i>Ondatra zibethicus</i>	Muskrat	medium	sighting	low	GRBA staff	locally restricted to aquatic habitats
<i>Mus musculus</i>	House mouse	small	unvouchered trap record	low	GRBA staff	probably restricted to buildings and nearby disturbed habitat
<i>Erethizon dorsatum</i>	Porcupine	large	voucher specimens	low-high	MVZ collection	formerly common, now rare or possibly extinct in Park
<i>Cervus elaphus</i>	Wapiti	large	sightings	low-high	Hall 1946; this report	historically extinct, reestablished
<i>Odocoileus hemionus</i>	Mule deer	large	voucher specimens	low-high	this report	common, widespread
<i>Antilocapra americana</i>	Pronghorn	large	sightings	low	Hall 1946; this report	common at low elevations, occasional occurrence in Park
<i>Ovis canadensis</i>	Bighorn sheep	large	sightings	high	Hall 1946; this report	historically extinct, reestablished and rare

¹ small (< 500 g); medium (500 g - 5 kg); large (> 5 kg)² low (< 6000 ft); mid (6000 - 8000); high (> 8000)

Table 4. Mammal species (other than bats) that potentially occur within Great Basin National Park.

Species	Common name	Size group ¹	Documentation	Source(s)	Probability of occurrence	Comments
<i>Sorex merriami</i>	Merriam's shrew	small	regional record (near Baker)	MVZ collection	high	Probably rare in low-mid elevation sagebrush habitat in Park
<i>Canis lupus</i>	Gray wolf	large	historical record from E Nevada	MVZ collection	low	Historically extinct, very low probability of recolonization
<i>Vulpes vulpes</i>	Red fox	large	regional sightings (Snake Valley)	GRBA staff	low	Report sightings may be other species, may be introduced
<i>Procyon lotor</i>	Raccoon	large	records from E Nevada, W Utah	Hall 1946, 1981; MVZ & UMNH	low	Not present, but future occurrence very probable
<i>Mustela vison</i>	Mink	medium	records from E Nevada	Hall 1946, 1981; MVZ collection	low	Not present, future occurrence possible but unlikely
<i>Brachylagus idahoensis</i>	Pygmy rabbit	medium	regional record (Spring Valley)	Hall 1946; MVZ collection	low-moderate	Possibly rare in low elevation sagebrush habitat in Park
<i>Sylvilagus auduboni</i>	Desert cottontail	medium	regional records (N Snake Valley)	Hall 1946; MVZ collection	low-moderate	Unlikely at lowest elevations in Park
<i>Chaetodipus formosus</i>	Long-tailed pocket mouse	small	regional records (N Snake Range)	MVZ collection	low-moderate	Possibly in rocky habitat at low elevations in Park
<i>Perognathus longimembris</i>	Little pocket mouse	small	regional records (Snake valley)	FMNH & NSMC collections	low-moderate	Unlikely at lowest elevations in Park
<i>Microdipodops megacephalus</i>	Dark kangaroo mouse	small	regional record (Spring Valley)	MVZ collection	low	Very unlikely at lowest elevations in Park

¹ small (< 500 g); medium (500 g - 5 kg); large (> 5 kg)

Table 5. Recent mammal species of prehistoric (late Quaternary) occurrence no longer present in the Park region.

Species	Common name	Records	Within GRBA?	Source(s)	Comments
<i>Gulo luscus</i>	Wolverine	Snake Creek Burial Cave	yes	Barker & Best 1976	
<i>Martes americana</i>	Marten	Lehman Cave	yes	Zielger 1964	may represent the extinct <i>Martes nobilis</i> (Grayson 1993)
		Crystal Ball Cave	no	Heaton 1990	may represent the extinct <i>Martes nobilis</i> (Grayson 1993)
<i>Mustela vison</i>	Mink	Crystal Ball Cave	no	Heaton 1990	
<i>Lepus</i> cf. <i>americana</i>	Snowshoe hare	Crystal Ball Cave	no	Heaton 1990	
<i>Lepus</i> cf. <i>townsendii</i>	White-tailed jackrabbit	Gatecliff Shelter	no	Grayson 1983	species identification uncertain (may be <i>L. californicus</i>)
		Crystal Ball Cave	no	Heaton 1990	
<i>Ochotona princeps</i>	Pika	Smith Creek Cave	no	Thompson & Mead 1982	
		Crystal Ball Cave	no	Heaton 1990	
<i>Thomomys</i> cf. <i>talpoides</i>	Northern pocket gopher	Lehman Cave	yes	Zielger 1964	questionable species identification (probably <i>T. bottae</i>)
		Smith Creek Cave	no	Miller 1979	questionable species identification (probably <i>T. bottae</i>)
<i>Phenacomys intermedius</i>	Heather vole	Gatecliff Shelter	no	Grayson 1981	
		Smith Creek Cave	no	Thompson & Mead 1982	
<i>Synaptomys borealis</i>	Northern bog-lemming	Smith Creek Cave	no	Mead et al. 1992	

Table 6. Comparison of small mammal surveys at locations within GRBA sampled historically and re-sampled recently.

Species	Common name	Historical records (1929-1930)		Recent records (2000 - 2003)	
Low elevation -- vicinity of Baker (5,300 - 6,000 ft).		Presence/ absence	Number of vouchers	Presence/ absence	Number of vouchers
<i>Tamias minimus</i>	Least chipmunk	1	4	0	0
<i>Ammospermophilus leucurus</i>	Antelope ground squirrel	0	0	1	3
<i>Spermophilus mollis</i>	Piute ground squirrel	1	1	1	(sign)
<i>Dipodomys microps</i>	Chisel-toothed kangaroo rat	1	15	0	10
<i>Dipodomys ordii</i>	Ord's kangaroo rat	0	0	1	4
<i>Perognathus longimembris</i>	Little pocket mouse	0	0	1	1
<i>Perognathus parvus</i>	Great Basin pocket mouse	0	0	1	13
<i>Reithrodontomys megalotis</i>	Western harvest mouse	1	4	1	3
<i>Peromyscus maniculatus</i>	Deer mouse	0	0	1	8
<i>Peromyscus truei</i>	Piñon mouse	0	0	1	2
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	1	6	1	2
<i>Neotoma lepida</i>	Desert woodrat	1	1	1	2
<i>Microtus montanus</i>	Montane vole	1	3	0	0
Number of species		7		10	
Mid-elevation -- Baker Creek drainage (6,500 - 7,500 ft).					
<i>Sorex vagrans</i>	Vagrant shrew	1	1	1	1
<i>Tamias dorsalis</i>	Cliff chipmunk	1	1	1	sighting
<i>Tamias minimus</i>	Least chipmunk	1	15	0	0
<i>Tamias umbrinus</i>	Uinta chipmunk	0	0	1	4
<i>Ammospermophilus leucurus</i>	Antelope ground squirrel	1	2	0	0
<i>Spermophilus variegatus</i>	Rock squirrel	1	2	1	1
<i>Perognathus parvus</i>	Great Basin pocket mouse	1	10	0	0
<i>Reithrodontomys megalotis</i>	Western harvest mouse	1	6	1	3
<i>Peromyscus crinitus</i>	Canyon mouse	1	4	0	0
<i>Peromyscus maniculatus</i>	Deer mouse	1	15	1	35
<i>Peromyscus truei</i>	Piñon mouse	0	0	1	8
<i>Neotoma cinerea</i>	Bushy-tailed woodrat	1	15	0	0
<i>Neotoma lepida</i>	Desert woodrat	1	21	0	0
<i>Lemmys curtatus</i>	Sagebrush vole	1	2	0	0
<i>Microtus longicaudus</i>	Long-tailed vole	0	0	1	3
<i>Microtus montanus</i>	Montane vole	1	8	1	1
Number of species		13		9	
High elevation -- upper Lehman Creek and Stella Lake areas (8,200 - 10,500 ft)					
<i>Sorex palustris</i>	Water shrew	1	1	1	1
<i>Sorex vagrans</i>	Vagrant shrew	0	0	1	2
<i>Tamias minimus</i>	Least chipmunk	1	1	0	0
<i>Tamias umbrinus</i>	Uinta chipmunk	1	10	1	10
<i>Spermophilus lateralis</i>	Golden-mantled ground squirrel	1	7	1	1
<i>Peromyscus maniculatus</i>	Deer mouse	1	8	1	43
<i>Microtus longicaudus</i>	Long-tailed vole	1	3	1	13
<i>Microtus montanus</i>	Montane vole	0	0	1	1
Number of species		6		7	

* excluding pitfall trapping

Table 7. Mammal species (other than bats) in Great Basin National Park of special concern.

Species	Common name	Current status	Comments
<i>Sorex palustris</i>	Water shrew	rare habitat specialist	key indicator species for riparian communities
<i>Puma concolor</i>	Mountain lion	apparently common	requires monitoring as a key predator of large ungulates
<i>Marmota flaviventris</i>	Yellow-bellied marmot	uncommon	requires monitoring as an important species in alpine habitats
<i>Spermophilus lateralis</i>	Golden-mantled ground squirrel	locally common	potential indicator species for alpine forest communities
<i>Castor canadensis</i>	Beaver	recolonizing	critical species for reestablishing riparian communities
<i>Neotoma cinerea</i>	Bushy tailed woodrat	uncommon, historical decline	requires monitoring as important species in rocky habitat
<i>Lagurus curtatus</i>	Sagebrush vole	rare habitat specialist	key indicator species for sagebrush communities
<i>Erethizon dorsatum</i>	Porcupine	rare, historical decline	potential indicator species for alpine forest communities
<i>Ovis canadensis</i>	Bighorn sheep	reestablished, but uncommon	requires monitoring an important large ungulate

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
1	MVZ	175243	Sorex	merriami	Merriam's shrew	D. Giuliani		unk	whole animal (alcohol)
2	MVZ	41472	Sorex	palustris	Water shrew	E. Raymond Hall (#2644)	2644	male	study skin, complete skull
3	MVZ	88048	Sorex	palustris	Water shrew	William M. Longhurst (#462)	462	female	study skin, complete skull
4	MVZ	88049	Sorex	palustris	Water shrew	J. R. Alcorn (#350)	350	male	study skin, complete skull
5	MVZ	88050	Sorex	palustris	Water shrew	J. R. Alcorn (#352)	352	male	study skin, complete skull
6	MVZ	41471	Sorex	vagrans	Vagrant shrew	E. Raymond Hall (#2793)	2793	male	study skin, complete skull
7	MVZ	45887	Sorex	vagrans	Vagrant shrew	Robert D. Moore (#501)	501	female	study skin, complete skull
8	MVZ	45888	Sorex	vagrans	Vagrant shrew	Robert D. Moore (#502)	502	female	study skin, complete skull
9	UMNH	26574	Sorex	vagrans	Vagrant shrew	Egoscue, H.J.	1546	male	SKIN & SKULL
10	MVZ	88042	Sorex	vagrans	Vagrant shrew	William M. Longhurst (#463)	463	male	study skin, complete skull
11	MVZ	88043	Sorex	vagrans	Vagrant shrew	J. R. Alcorn (#351)	351	male	study skin, complete skull
12	MVZ	88044	Sorex	vagrans	Vagrant shrew	William M. Longhurst (#465)	465	male	study skin, complete skull
13	MVZ	88045	Sorex	vagrans	Vagrant shrew	J. R. Alcorn (#353)	353	male	study skin, complete skull
14	MVZ	41513	Canis	latrans	Coyote	E. Raymond Hall (#2929)	2929	male	complete skull
15	MVZ	129389	Urocyon	cinereoargenteus	Gray fox	Ward C. Russell (#13933)	13933	male	complete skull
16	MVZ	47145	Urocyon	cinereoargenteus	Gray fox	L. Rowley		unk	pelt skin, complete skull
17	GRBA	2597	Bassariscus	astutus	Ringtail				
18	MVZ	41501	Mustela	erminea	Ermine	Robert D. Moore (#312)	312	male	study skin, complete skull
19	MVZ	41502	Mustela	erminea	Ermine	Robert D. Moore (#320)	320	female	study skin, complete skull
20	MVZ	88059	Mustela	erminea	Ermine	William M. Longhurst (#467)	467	female	study skin, partial skeleton, skull
21	MVZ	41504	Mustela	frenata	Long-tailed weasel	E. Raymond Hall (#2750)	2750	female	study skin, complete skull
22	MVZ	41505	Mustela	frenata	Long-tailed weasel	Ward C. Russell (#1222), E. Raymond Hall	1222	male	study skin, complete skull
23	MVZ	41506	Mustela	frenata	Long-tailed weasel	E. Raymond Hall (#2789)	2789	male	study skin, complete skull
24	MVZ	41507	Mustela	frenata	Long-tailed weasel	E. Raymond Hall (#2790)	2790	female	study skin, complete skull
25	MVZ	41508	Mustela	frenata	Long-tailed weasel	Robert D. Moore (#348)	348	male	study skin, partial skeleton, skull
26	MVZ	41509	Mustela	frenata	Long-tailed weasel	Robert D. Moore (#349)	349	female	study skin, partial skeleton, skull
27	MVZ	41510	Mustela	frenata	Long-tailed weasel	Robert D. Moore (#350)	350	female	study skin, complete skull
28	MVZ	41511	Mustela	frenata	Long-tailed weasel	Robert D. Moore (#351)	351	male	study skin, complete skull
29	MVZ	134142	Mustela	frenata	Long-tailed weasel	Ward C. Russell (#13929)	13929	male	study skin, complete skull
30	MVZ	41499	Taxidea	taxus	Badger	E. Raymond Hall (#2646)	2646	female	pelt skin, complete skull
31	MVZ	88066	Puma	concolor	Mountain lion	William M. Longhurst (#6213), David Taylor	6213	female	complete skull
32	MVZ	88067	Puma	concolor	Mountain lion	William M. Longhurst (#6228), David Taylor	6228	unk	complete skull
33	MVZ	154377	Puma	concolor	Mountain lion	G. W. Carroll (#4507), Carl B. Koford (#4507)	4507	male	complete skull
34	MVZ	154385	Puma	concolor	Mountain lion	Carl B. Koford (#4515), G. W. Carroll	4515	male	complete skull
35	MVZ	44133	Lynx	rufus	Bobcat	W. C. Kirkland		female	complete skull
36	MVZ	47146	Lynx	rufus	Bobcat	L. Rowley		unknown	pelt skin, complete skull
37	MVZ	42084	Brachylagus	idahoensis	Pygmy rabbit	Ward C. Russell (#434)	434	unk	study skin, complete skull
38	MVZ	42082	Sylvilagus	nuttallii	Mountain cottontail	E. Raymond Hall (#2813)	2813	unk	complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
39	MVZ	42081	Sylvilagus	nuttallii	Mountain cottontail	E. Raymond Hall (#2647)	2647	female	complete skull
40	MVZ	132527	Sylvilagus	nuttallii	Mountain cottontail	Ward C. Russell (#13966), Jerry C. Russell	13966	male	study skin, complete skull
41	MVZ	42083	Sylvilagus	nuttallii	Mountain cottontail	E. Raymond Hall (#2849)	2849	female	study skin, complete skull
42	MVZ	129385	Tamias	dorsalis	Cliff chipmunk	Ronald L. Church (#127)	127	female	study skin, complete skull
43	UMNH	25737	Tamias	dorsalis	Cliff chipmunk	Egoscue, H.J.	1166	female	SKIN & SKULL
44	MVZ	41565	Tamias	dorsalis	Cliff chipmunk	Ward C. Russell (#324)	324	female	study skin, complete skull
45	MVZ	41566	Tamias	dorsalis	Cliff chipmunk	Ward C. Russell (#330)	330	male	study skin, complete skull
46	MVZ	41564	Tamias	dorsalis	Cliff chipmunk	E. Raymond Hall (#2724)	2724	female	study skin, complete skull
47	MVZ	41562	Tamias	dorsalis	Cliff chipmunk	Ward C. Russell (#298)	298	female	study skin, complete skull
48	MVZ	41563	Tamias	dorsalis	Cliff chipmunk	Ward C. Russell (#299)	299	male	study skin, complete skull
49	MVZ	41609	Tamias	minimus	Least chipmunk	Ward C. Russell (#283)	283	female	study skin, complete skull
50	MVZ	41610	Tamias	minimus	Least chipmunk	Ward C. Russell (#284)	284	male	study skin, complete skull
51	MVZ	41611	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2694)	2694	male	study skin, complete skull
52	MVZ	41612	Tamias	minimus	Least chipmunk	Ward C. Russell (#290)	290	male	study skin, complete skull
53	MVZ	41613	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2716)	2716	male	study skin, complete skull
54	MVZ	41614	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2717)	2717	male	study skin, complete skull
55	MVZ	41632	Tamias	minimus	Least chipmunk	Ward C. Russell (#435)	435	female	study skin, complete skull
56	MVZ	41633	Tamias	minimus	Least chipmunk	Ward C. Russell (#436)	436	male	study skin, complete skull
57	MVZ	41634	Tamias	minimus	Least chipmunk	Robert D. Moore (#361)	361	female	study skin, complete skull
58	MVZ	41635	Tamias	minimus	Least chipmunk	Robert D. Moore (#366)	366	female	study skin, complete skull
59	MVZ	41636	Tamias	minimus	Least chipmunk	Robert D. Moore (#367)	367	male	study skin, complete skull
60	MVZ	41637	Tamias	minimus	Least chipmunk	Robert D. Moore (#368)	368	female	study skin, complete skull
61	MVZ	41638	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2918)	2918	male	study skin, complete skull
62	MVZ	41639	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2919)	2919	female	study skin, complete skull
63	MVZ	41640	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2920)	2920	female	study skin, complete skull
64	MVZ	41631	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2900)	2900	female	study skin, complete skull
65	MVZ	41603	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2749)	2749	female	study skin, complete skull
66	MVZ	41615	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2748)	2748	female	study skin, complete skull
67	MVZ	41616	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2785)	2785	male	study skin, complete skull
68	MVZ	41617	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2786)	2786	female	study skin, complete skull
69	MVZ	41618	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2795)	2795	male	study skin, complete skull
70	MVZ	41619	Tamias	minimus	Least chipmunk	Ward C. Russell (#333)	333	male	study skin, complete skull
71	MVZ	41604	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2838)	2838	female	study skin, complete skull
72	MVZ	41605	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2839)	2839	female	study skin, complete skull
73	MVZ	41620	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2815)	2815	male	study skin, complete skull
74	MVZ	41621	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2816)	2816	female	study skin, complete skull
75	MVZ	41622	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2830)	2830	female	study skin, complete skull
76	MVZ	41623	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2837)	2837	male	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
77	MVZ	41624	Tamias	minimus	Least chipmunk	Robert D. Moore (#3278), E. Raymond Hall	3278	male	study skin, complete skull
78	MVZ	41625	Tamias	minimus	Least chipmunk	Robert D. Moore (#2098), E. Raymond Hall	2098	female	study skin, complete skull
79	MVZ	41626	Tamias	minimus	Least chipmunk	Robert D. Moore (#1314), E. Raymond Hall	1314	female	study skin, complete skull
80	MVZ	41642	Tamias	minimus	Least chipmunk	Robert D. Moore (#3233), E. Raymond Hall	3233	male	study skin, complete skull
81	MVZ	129386	Tamias	minimus	Least chipmunk	Ronald L. Church (#157)	157	female	study skin, complete skull
82	MVZ	41607	Tamias	minimus	Least chipmunk	E. Raymond Hall (#2640)	2640	male	study skin, complete skull
83	MVZ	41643	Tamias	minimus	Least chipmunk	Robert D. Moore (#391)	391	female	study skin, complete skull
84	MVZ	41627	Tamias	minimus	Least chipmunk	Robert D. Moore (#304)	304	female	study skin, complete skull
85	MVZ	41628	Tamias	minimus	Least chipmunk	Robert D. Moore (#322)	322	male	study skin, complete skull
86	MVZ	41629	Tamias	minimus	Least chipmunk	Ward C. Russell (#396)	396	female	study skin, complete skull
87	MVZ	41630	Tamias	minimus	Least chipmunk	Robert D. Moore (#331)	331	female	study skin, complete skull
88	UMNH	29308	Tamias	umbrinus	Uinta chipmunk	Ports, M. A.	409	male	SKIN ONLY
89	UMNH	29300	Tamias	umbrinus	Uinta chipmunk	Ports, M. A.	410	male	SKIN & SKULL
90	UWBM	43115	Tamias	umbrinus	Uinta chipmunk	E. S. Booth		male	skin/skull
91	MVZ	41570	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#294), Robert D. Moore	294	female	study skin, complete skull
92	MVZ	41571	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#295), Robert D. Moore	295	female	study skin, complete skull
93	MVZ	41572	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#296), Robert D. Moore	296	female	study skin, complete skull
94	MVZ	41573	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#297), Robert D. Moore	297	female	study skin, complete skull
95	MVZ	41574	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#382)	382	male	study skin, complete skull
96	MVZ	41575	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#383)	383	male	study skin, complete skull
97	MVZ	41576	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#384)	384	male	study skin, complete skull
98	MVZ	41589	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2886)	2886	male	study skin, complete skull
99	MVZ	41590	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2887)	2887	female	study skin, complete skull
100	MVZ	41591	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2888)	2888	female	study skin, complete skull
101	MVZ	41569	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#321)	321	female	study skin, complete skull
102	UMNH	29307	Tamias	umbrinus	Uinta chipmunk	Ports, M. A.	504	female	SKULL ONLY
103	UMNH	29303	Tamias	umbrinus	Uinta chipmunk	Ports, M. A.	507	female	SKIN & SKULL
104	MVZ	41592	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#411)	411	female	study skin, complete skull
105	MVZ	41593	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#412)	412	female	study skin, complete skull
106	MVZ	41594	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#413)	413	female	study skin, complete skull
107	MVZ	41595	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#414)	414	male	study skin, complete skull
108	MVZ	41578	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#389)	389	male	study skin, complete skull
109	MVZ	41577	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#388)	388	male	study skin, complete skull
110	MVZ	41581	Tamias	umbrinus	Uinta chipmunk	Robert D. Moore (#313)	313	female	study skin, complete skull
111	MVZ	41582	Tamias	umbrinus	Uinta chipmunk	Robert D. Moore (#314)	314	female	study skin, complete skull
112	MVZ	41583	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2859)	2859	male	study skin, complete skull
113	MVZ	41584	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2860)	2860	female	study skin, complete skull
114	MVZ	41585	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#397)	397	female	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
115	MVZ	41586	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#399)	399	male	study skin, complete skull
116	MVZ	41587	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2871)	2871	female	study skin, complete skull
117	MVZ	41588	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2872)	2872	male	study skin, complete skull
118	MVZ	41568	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2642)	2642	male	study skin, complete skull
119	MVZ	41579	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#390)	390	female	study skin, complete skull
120	MVZ	41580	Tamias	umbrinus	Uinta chipmunk	Ward C. Russell (#394)	394	female	study skin, complete skull
121	MVZ	41567	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2641)	2641	male	study skin, complete skull
122	UMNH	26224	Tamias	umbrinus	Uinta chipmunk	Egoscue, H. J.	1549	male	SKIN & SKULL
123	MVZ	41596	Tamias	umbrinus	Uinta chipmunk	Robert D. Moore (#2938), E. Raymond Hall	2938	male	study skin, complete skull
124	MVZ	41598	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#399), Robert D. Moore	399	male	study skin, complete skull
125	MVZ	41599	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#400), Robert D. Moore	400	male	study skin, complete skull
126	MVZ	41597	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2945)	2945	female	study skin, complete skull
127	MVZ	41601	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2951)	2951	female	study skin, complete skull
128	MVZ	41602	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#2952)	2952	male	study skin, complete skull
129	MVZ	84086	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#5543), et al.	5543	female	study skin, complete skull
130	MVZ	84087	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#5546)	5546	male	study skin, complete skull
131	MVZ	84088	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#5547)	5547	male	study skin, complete skull
132	MVZ	84089	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#5548)	5548	female	study skin, complete skull
133	MVZ	84090	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#5549)	5549	female	study skin, complete skull
134	MVZ	84091	Tamias	umbrinus	Uinta chipmunk	E. Raymond Hall (#5550)	5550	female	study skin, complete skull
135	MVZ	41600	Tamias	umbrinus	Uinta chipmunk	Robert D. Moore (#2950), E. Raymond Hall	2950	male	study skin, complete skull
136	MVZ	88072	Tamias	umbrinus	Uinta chipmunk	J. R. Alcorn (#343)	343	male	study skin, complete skull
137	MVZ	41560	Ammospermophilus	leucurus	Antelope ground squirrel	E. Raymond Hall (#2907)	2907	female	study skin, complete skull
138	MVZ	41561	Ammospermophilus	leucurus	Antelope ground squirrel	Robert D. Moore (#359)	359	female	study skin, complete skull
139	MVZ	41559	Ammospermophilus	leucurus	Antelope ground squirrel	Robert D. Moore (#309)	309	male	study skin, complete skull
140	MVZ	41557	Ammospermophilus	leucurus	Antelope ground squirrel	Ward C. Russell (#320)	320	male	study skin, complete skull
141	MVZ	41558	Ammospermophilus	leucurus	Antelope ground squirrel	Ward C. Russell (#376)	376	female	study skin, complete skull
142	MVZ	41531	Spermophilus	lateralis	Golden-mantled ground squirrel	Ward C. Russell (#247)	247	female	study skin, complete skull
143	MVZ	41536	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2879)	2879	female	study skin, complete skull
144	MVZ	41538	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2881)	2881	male	study skin, complete skull
145	MVZ	41539	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2882)	2882	male	study skin, complete skull
146	MVZ	41540	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2883)	2883	male	study skin, complete skull
147	MVZ	41532	Spermophilus	lateralis	Golden-mantled ground squirrel	Ward C. Russell (#392)	392	female	study skin, complete skull
148	MVZ	41533	Spermophilus	lateralis	Golden-mantled ground squirrel	Robert D. Moore (#321)	321	male	study skin, complete skull
149	MVZ	41534	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#323), Robert D. Moore	323	female	study skin, complete skull
150	MVZ	41535	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#324), Robert D. Moore	324	male	study skin, complete skull
151	MVZ	41537	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2880)	2880	male	study skin, complete skull
152	MVZ	41547	Spermophilus	lateralis	Golden-mantled ground squirrel	Robert D. Moore (#2937), E. Raymond Hall	2937	male	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
153	MVZ	41553	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#396), Robert D. Moore	396	female	study skin, complete skull
154	MVZ	41554	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#397), Robert D. Moore	397	female	study skin, complete skull
155	MVZ	41555	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#398), Robert D. Moore	398	male	study skin, complete skull
156	MMNH	13572	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2947)	2947		
157	MVZ	41546	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2933)	2933	female	study skin, complete skull
158	MVZ	41548	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2943)	2943	female	study skin, complete skull
159	MVZ	41549	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2946)	2946	female	study skin, complete skull
160	MVZ	41550	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2947)	2947	female	study skin, complete skull
161	MVZ	41551	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2948)	2948	male	study skin, complete skull
162	MVZ	41552	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#2949)	2949	female	study skin, complete skull
163	MVZ	41556	Spermophilus	lateralis	Golden-mantled ground squirrel	E. Raymond Hall (#401), Robert D. Moore	401	female	study skin, complete skull
164	MVZ	41529	Spermophilus	mollis	Piute ground squirrel	E. Raymond Hall (#2695)	2695	male	study skin, complete skull
165	MVZ	41530	Spermophilus	mollis	Piute ground squirrel	Ward C. Russell (#433)	433	female	study skin, complete skull
166	MVZ	41517	Spermophilus	variegatus	Rock squirrel	Ward C. Russell (#385)	385	male	study skin, complete skull
167	MVZ	41516	Spermophilus	variegatus	Rock squirrel	Ward C. Russell (#329)	329	male	study skin, complete skull
168	MVZ	41519	Spermophilus	variegatus	Rock squirrel	Robert D. Moore (#3234), Ward C. Russell	3234	female	study skin, complete skull
169	MVZ	41520	Spermophilus	variegatus	Rock squirrel	Robert D. Moore (#3213), E. Raymond Hall	3213	female	study skin, complete skull
170	MVZ	41521	Spermophilus	variegatus	Rock squirrel	Robert D. Moore (#3214), E. Raymond Hall	3214	male	study skin, complete skull
171	MVZ	41522	Spermophilus	variegatus	Rock squirrel	Robert D. Moore (#3225), Ward C. Russell	3225	male	study skin, complete skull
172	MVZ	41523	Spermophilus	variegatus	Rock squirrel	Robert D. Moore (#3239), Ward C. Russell	3239	male	study skin, complete skull
173	MVZ	45926	Spermophilus	variegatus	Rock squirrel	E. Raymond Hall (#2975)	2975	female	study skin, complete skull
174	MVZ	45949	Spermophilus	variegatus	Rock squirrel	E. Raymond Hall (#2981)	2981	unk	complete skull
175	MVZ	129384	Spermophilus	variegatus	Rock squirrel	Ward C. Russell (#13838)	13838	female	study skin, complete skull
176	MVZ	41518	Spermophilus	variegatus	Rock squirrel	E. Raymond Hall (#2894), et al.	2894	male	study skin, complete skull
177	NSMC	1	Perognathus	longimembris	Little pocket mouse	P. Herlan		male	skin only
178	NSMC	2	Perognathus	longimembris	Little pocket mouse	P. Herlan		female	skin/skull
179	MVZ	41741	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#430)	430	male	study skin, complete skull
180	MVZ	41742	Perognathus	parvus	Great Basin pocket mouse	Robert D. Moore (#634)	634	male	study skin, complete skull
181	MVZ	41740	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2905)	2905	female	study skin, complete skull
182	MVZ	41725	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2758)	2758	female	study skin, complete skull
183	MVZ	41728	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2757)	2757	female	study skin, complete skull
184	MVZ	41729	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2760), Ward C. Russell	2760	male	study skin, complete skull
185	UWBM	47011	Perognathus	parvus	Great Basin pocket mouse	Collector: E. S. Booth; Prep: E. S. Booth 353		female	skin only
186	MVZ	41743	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#441)	441	male	study skin, complete skull
187	MVZ	41744	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#442)	442	female	study skin, complete skull
188	MVZ	41745	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#443)	443	female	study skin, complete skull
189	MVZ	41746	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#444)	444	male	study skin, complete skull
190	MVZ	41747	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#445)	445	male	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
191	MVZ	41730	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2809)	2809	female	study skin, complete skull
192	MVZ	41731	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2820)	2820	female	study skin, complete skull
193	MVZ	41732	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2822)	2822	male	study skin, complete skull
194	MVZ	41733	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2823)	2823	male	study skin, complete skull
195	MVZ	41734	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2831)	2831	male	study skin, complete skull
196	MVZ	41735	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2832)	2832	male	study skin, complete skull
197	MVZ	41736	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2833)	2833	female	study skin, complete skull
198	MVZ	41737	Perognathus	parvus	Great Basin pocket mouse	Robert D. Moore (#290)	290	male	study skin, complete skull
199	MVZ	41738	Perognathus	parvus	Great Basin pocket mouse	Robert D. Moore (#300)	300	male	study skin, complete skull
200	MVZ	41726	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2751)	2751	male	study skin, complete skull
201	MVZ	41727	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2752)	2752	male	study skin, complete skull
202	MVZ	41748	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#451)	451	male	study skin, complete skull
203	MVZ	41749	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#452)	452	female	study skin, complete skull
204	MVZ	41750	Perognathus	parvus	Great Basin pocket mouse	Ward C. Russell (#453)	453	female	study skin, complete skull
205	MVZ	41752	Perognathus	parvus	Great Basin pocket mouse	Robert D. Moore (#393)	393	male	complete skull
206	MVZ	41739	Perognathus	parvus	Great Basin pocket mouse	E. Raymond Hall (#2889)	2889	female	study skin, complete skull
207	MVZ	41751	Perognathus	parvus	Great Basin pocket mouse	Robert D. Moore (#389)	389	male	study skin, complete skull
208	NSMC	3	Perognathus	parvus	Great Basin pocket mouse	P. Herlan		male	skin only
209	MVZ	41761	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2689)	2689	female	study skin, complete skull
210	MVZ	41762	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2690)	2690	female	study skin, complete skull
211	MVZ	41763	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2691)	2691	female	study skin, complete skull
212	MVZ	41764	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2692)	2692	female	study skin, complete skull
213	MVZ	41765	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#28693)	28693	female	study skin, complete skull
214	MVZ	41766	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#5763)	5763	female	study skin, complete skull
215	MVZ	41767	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#5765)	5765	female	study skin, complete skull
216	MVZ	41768	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#2465)	2465	female	study skin, complete skull
217	MVZ	41769	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2703)	2703	female	study skin, complete skull
218	MVZ	41770	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2704)	2704	female	study skin, complete skull
219	MVZ	41771	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2705)	2705	male	study skin, complete skull
220	MVZ	41772	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2706)	2706	male	study skin, complete skull
221	MVZ	41773	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#9976)	9976	male	study skin, complete skull
222	MVZ	41774	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#4405)	4405	male	study skin, complete skull
223	MVZ	41775	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#5831)	5831	male	study skin, complete skull
224	MVZ	41776	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#4146)	4146	female	study skin, complete skull
225	MVZ	41777	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#5664)	5664	female	study skin, complete skull
226	MVZ	41778	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#1996 B)	1996 B	female	study skin, complete skull
227	MVZ	41779	Dipodomys	microps	Chisel-toothed kangaroo rat	Ward C. Russell (#11113)	11113	male	study skin, complete skull
228	MVZ	41780	Dipodomys	microps	Chisel-toothed kangaroo rat	Robert D. Moore (#7700)	7700	male	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
229	MVZ	41781	Dipodomys	microps	Chisel-toothed kangaroo rat	Robert D. Moore (#7701)	7701	female	study skin, complete skull
230	MVZ	41782	Dipodomys	microps	Chisel-toothed kangaroo rat	Robert D. Moore (#3037)	3037	female	study skin, complete skull
231	MVZ	41783	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2916)	2916	female	study skin, complete skull
232	MVZ	41784	Dipodomys	microps	Chisel-toothed kangaroo rat	E. Raymond Hall (#2917)	2917	male	study skin, complete skull
233	NSMC	171	Dipodomys	microps	Chisel-toothed kangaroo rat	F. Funk		male	skin/skull
234	UWBM	45759	Dipodomys	ordii	Ord's kangaroo rat	R. Underhill		male	skin/skull
235	MVZ	41845	Microdipodops	megacephalus	Dark kangaroo mouse	Robert D. Moore (#2184)	2184	female	study skin, complete skull
236	MVZ	41846	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2913)	2913	male	study skin, complete skull
237	MVZ	41823	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2896), Robert D. Moore	2896	female	study skin, complete skull
238	MVZ	41824	Microdipodops	megacephalus	Dark kangaroo mouse	Robert D. Moore (#6633)	6633	male	study skin, complete skull
239	MVZ	41825	Microdipodops	megacephalus	Dark kangaroo mouse	Robert D. Moore (#7409)	7409	female	study skin, complete skull
240	MVZ	41826	Microdipodops	megacephalus	Dark kangaroo mouse	Robert D. Moore (#7410)	7410	female	study skin, complete skull
241	MVZ	41827	Microdipodops	megacephalus	Dark kangaroo mouse	Robert D. Moore (#7649)	7649	male	study skin, complete skull
242	MVZ	41828	Microdipodops	megacephalus	Dark kangaroo mouse	Robert D. Moore (#7654)	7654	female	study skin, complete skull
243	MVZ	41829	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#4135)	4135	female	study skin, complete skull
244	MVZ	41830	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#4142)	4142	male	study skin, complete skull
245	MVZ	41831	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#4145)	4145	male	study skin, complete skull
246	MVZ	41832	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#4154)	4154	female	study skin, complete skull
247	MVZ	41833	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#4162)	4162	unk	study skin, complete skull
248	MVZ	41834	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2897)	2897	male	study skin, complete skull
249	MVZ	41835	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2898)	2898	female	study skin, complete skull
250	MVZ	41836	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2901)	2901	female	complete skeleton, complete skull
251	MVZ	41837	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2902)	2902	male	complete skeleton, complete skull
252	MVZ	41838	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#6349)	6349	female	study skin, complete skull
253	MVZ	41839	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2904)	2904	female	study skin, complete skull
254	MVZ	41840	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2909)	2909	female	study skin, complete skull
255	MVZ	41841	Microdipodops	megacephalus	Dark kangaroo mouse	E. Raymond Hall (#2910)	2910	female	study skin, complete skull
256	MVZ	41842	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#4625)	4625	male	study skin, complete skull
257	MVZ	41843	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#4629)	4629	male	study skin, complete skull
258	MVZ	41844	Microdipodops	megacephalus	Dark kangaroo mouse	Ward C. Russell (#6748)	6748	female	study skin, complete skull
259	MVZ	41695	Thomomys	bottae	Valley pocket gopher	Ward C. Russell (#400), E. Raymond Hall	400	female	study skin, complete skull
260	MVZ	41696	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2787)	2787	male	study skin, complete skull
261	MVZ	41697	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2788)	2788	female	study skin, complete skull
262	MVZ	41698	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2791)	2791	unk	study skin, complete skull
263	MVZ	41699	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2797)	2797	female	study skin, complete skull
264	MVZ	41700	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2806)	2806	female	study skin, complete skull
265	MVZ	41701	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2807)	2807	male	study skin, complete skull
266	MVZ	41708	Thomomys	bottae	Valley pocket gopher	Robert D. Moore (#353)	353	female	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
267	MVZ	41709	Thomomys	bottae	Valley pocket gopher	Robert D. Moore (#358)	358	male	study skin, complete skull
268	MVZ	41710	Thomomys	bottae	Valley pocket gopher	Robert D. Moore (#365)	365	female	study skin, complete skull
269	MVZ	46072	Thomomys	bottae	Valley pocket gopher	Chester C. Lamb (#12838)	12838	male	study skin, complete skull
270	MVZ	46073	Thomomys	bottae	Valley pocket gopher	Chester C. Lamb (#12839)	12839	female	study skin, complete skull
271	MVZ	41711	Thomomys	bottae	Valley pocket gopher	Robert D. Moore (#384), Ward C. Russell	384	male	study skin, complete skull
272	MVZ	41712	Thomomys	bottae	Valley pocket gopher	Robert D. Moore (#448), Ward C. Russell	448	female	study skin, complete skull
273	MVZ	41702	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2846), Robert D. Moore	2846	female	study skin, complete skull
274	MVZ	41703	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2852)	2852	male	study skin, complete skull
275	MVZ	41704	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2853)	2853	male	study skin, complete skull
276	MVZ	41707	Thomomys	bottae	Valley pocket gopher	Robert D. Moore (#345)	345	male	study skin, complete skull
277	MVZ	41705	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#2645)	2645	male	study skin, complete skull
278	MVZ	129387	Thomomys	bottae	Valley pocket gopher	Ward C. Russell (#3835)	3835	female	study skin, complete skull
279	MVZ	41706	Thomomys	bottae	Valley pocket gopher	Ward C. Russell (#393)	393	male	study skin, complete skull
280	MVZ	46070	Thomomys	bottae	Valley pocket gopher	Chester C. Lamb (#12836)	12836	female	study skin, complete skull
281	MVZ	46071	Thomomys	bottae	Valley pocket gopher	Chester C. Lamb (#12837)	12837	female	study skin, complete skull
282	MVZ	84092	Thomomys	bottae	Valley pocket gopher	E. Raymond Hall (#5542)	5542	female	study skin, complete skull
283	MVZ	41862	Reithrodontomys	megalotis	Western harvest mouse	Ward C. Russell (#291)	291	female	complete skeleton, complete skull
284	MVZ	41863	Reithrodontomys	megalotis	Western harvest mouse	Ward C. Russell (#292)	292	male	study skin, complete skull
285	MVZ	41864	Reithrodontomys	megalotis	Western harvest mouse	Ward C. Russell (#293)	293	male	study skin, complete skull
286	MVZ	41865	Reithrodontomys	megalotis	Western harvest mouse	Ward C. Russell (#294)	294	female	study skin, complete skull
287	MVZ	41866	Reithrodontomys	megalotis	Western harvest mouse	E. Raymond Hall (#2742)	2742	female	study skin, complete skull
288	UMNH	25668	Reithrodontomys	megalotis	Western harvest mouse	Egoscue, H.J.	1167	female	SKIN & SKULL
289	MVZ	41868	Reithrodontomys	megalotis	Western harvest mouse	E. Raymond Hall (#2817)	2817	unk	study skin, complete skull
290	MVZ	41869	Reithrodontomys	megalotis	Western harvest mouse	E. Raymond Hall (#2818)	2818	unk	study skin, complete skull
291	MVZ	41870	Reithrodontomys	megalotis	Western harvest mouse	E. Raymond Hall (#2819)	2819	unk	study skin, complete skull
292	MVZ	41871	Reithrodontomys	megalotis	Western harvest mouse	E. Raymond Hall (#2835)	2835	male	study skin, complete skull
293	MVZ	41872	Reithrodontomys	megalotis	Western harvest mouse	E. Raymond Hall (#2836)	2836	female	study skin, complete skull
294	MVZ	41867	Reithrodontomys	megalotis	Western harvest mouse	Ward C. Russell (#332)	332	male	study skin, complete skull
295	MVZ	41873	Reithrodontomys	megalotis	Western harvest mouse	Robert D. Moore (#394)	394	female	complete skull
296	UMNH	26327	Peromyscus	crinitus	Canyon mouse	Egoscue, H.J.	1163	female	skin & skull
297	UMNH	26330	Peromyscus	crinitus	Canyon mouse	Egoscue, H.J.	1164	male	skin & skull
298	MVZ	41929	Peromyscus	crinitus	Canyon mouse	Ward C. Russell (#351)	351	female	study skin, complete skull
299	MVZ	41930	Peromyscus	crinitus	Canyon mouse	Ward C. Russell (#352)	352	female	study skin, complete skull
300	MVZ	41885	Peromyscus	crinitus	Canyon mouse	E. Raymond Hall (#2725)	2725	male	study skin, complete skull
301	MVZ	41916	Peromyscus	crinitus	Canyon mouse	Ward C. Russell (#318)	318	male	study skin, complete skull
302	MVZ	41884	Peromyscus	crinitus	Canyon mouse	E. Raymond Hall (#2718)	2718	female	study skin, complete skull
303	MVZ	41912	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2744)	2744	male	study skin, complete skull
304	MVZ	41913	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2745)	2745	male	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
305	MVZ	41914	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2746)	2746	female	study skin, complete skull
306	MVZ	41918	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2759)	2759	female	study skin, complete skull
307	MVZ	41919	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2761), Ward C. Russell	2761	male	study skin, complete skull
308	MVZ	41920	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2762), Ward C. Russell	2762	female	study skin, complete skull
309	MVZ	41921	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2763), Ward C. Russell	2763	female	study skin, complete skull
310	UWBM	66756	Peromyscus	maniculatus	Deer mouse	E. R. Booth	44	female	skin only
311	UWBM	66758	Peromyscus	maniculatus	Deer mouse	E. R. Booth	55	male	skin only
312	UWBM	66757	Peromyscus	maniculatus	Deer mouse	E. R. Booth	50	female	skin only
313	UWBM	66705	Peromyscus	maniculatus	Deer mouse	C. Degering	45	female	skin only
314	UWBM	66704	Peromyscus	maniculatus	Deer mouse	C. Degering	41	female	skin only
315	UWBM	66911	Peromyscus	maniculatus	Deer mouse	R. Underhill	53	female	skin only
316	UWBM	66912	Peromyscus	maniculatus	Deer mouse	R. Underhill	74	male	skin/skull
317	UWBM	66913	Peromyscus	maniculatus	Deer mouse	R. Underhill	75	female	skin only
318	UWBM	66762	Peromyscus	maniculatus	Deer mouse	E. Wagner	57	female	skin only
319	UWBM	66760	Peromyscus	maniculatus	Deer mouse	E. Wagner	43	female	skin/skull
320	UWBM	66761	Peromyscus	maniculatus	Deer mouse	E. Wagner	54	female	skin only
321	UWBM	71130	Peromyscus	maniculatus	Deer mouse	E. S. Booth	350	male	skin only
322	UWBM	71129	Peromyscus	maniculatus	Deer mouse	E. S. Booth	352	male	skin/skull
323	MVZ	41924	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#340)	340	male	study skin, complete skull
324	MVZ	41925	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#341)	341	female	study skin, complete skull
325	MVZ	41926	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#342)	342	female	study skin, complete skull
326	MVZ	41927	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#343)	343	female	study skin, complete skull
327	MVZ	41928	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2810)	2810	male	study skin, complete skull
328	MVZ	41931	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2825)	2825	male	study skin, complete skull
329	MVZ	41932	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2826)	2826	female	study skin, complete skull
330	MVZ	41933	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2827)	2827	female	study skin, complete skull
331	MVZ	41922	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2800)	2800	female	study skin, complete skull
332	MVZ	41923	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2801)	2801	male	study skin, complete skull
333	MVZ	41936	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#303)	303	female	study skin, complete skull
334	MVZ	41910	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2726)	2726	female	study skin, complete skull
335	MVZ	41911	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2727)	2727	male	study skin, complete skull
336	MVZ	41915	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2753)	2753	female	study skin, complete skull
337	MVZ	41917	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2754)	2754	female	study skin, complete skull
338	MVZ	41934	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2844)	2844	female	study skin, complete skull
339	MVZ	41935	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2845)	2845	male	study skin, complete skull
340	MVZ	41908	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2719)	2719	male	study skin, complete skull
341	MVZ	41909	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2720)	2720	female	study skin, complete skull
342	MVZ	41970	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#470), Ward C. Russell	470	female	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
343	MVZ	41971	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#379)	379	female	study skin, complete skull
344	MVZ	41972	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#455)	455	male	study skin, complete skull
345	MVZ	41958	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2890)	2890	male	study skin, complete skull
346	MVZ	41959	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2891)	2891	male	study skin, complete skull
347	MVZ	41960	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2892)	2892	male	study skin, complete skull
348	MVZ	41961	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2893)	2893	female	study skin, complete skull
349	MVZ	183955	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall		female	partial skeleton, complete skull
350	MVZ	41973	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#6949), E. Raymond Hall	6949	female	study skin, complete skull
351	MVZ	41886	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#242)	242	male	study skin, complete skull
352	MVZ	41887	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#243)	243	male	study skin, complete skull
353	MVZ	41937	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#306)	306	male	study skin, complete skull
354	MVZ	41938	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#2362)	2362	male	study skin, complete skull
355	MVZ	41939	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2850)	2850	male	study skin, complete skull
356	MVZ	41940	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2851)	2851	male	study skin, complete skull
357	MVZ	41941	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#316)	316	male	study skin, complete skull
358	MVZ	41942	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2865)	2865	male	complete skeleton, complete skull
359	MVZ	41943	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2866)	2866	male	complete skeleton, complete skull
360	MVZ	41944	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2867)	2867	female	complete skeleton, complete skull
361	MVZ	41945	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2868)	2868	female	complete skeleton, complete skull
362	MVZ	41946	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#398)	398	female	study skin, complete skull
363	MVZ	41947	Peromyscus	maniculatus	Deer mouse	Ward C. Russell (#409)	409	female	study skin, complete skull
364	MVZ	41948	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2873)	2873	male	study skin, complete skull
365	MVZ	41949	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#326)	326	male	study skin, complete skull
366	MVZ	41950	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#327)	327	female	study skin, complete skull
367	MVZ	41951	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#333)	333	male	study skin, complete skull
368	MVZ	41952	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#334)	334	male	study skin, complete skull
369	MVZ	41953	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#335)	335	male	study skin, complete skull
370	MVZ	41954	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2874)	2874	male	study skin, complete skull
371	MVZ	41955	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#342)	342	male	complete skeleton, complete skull
372	MVZ	41956	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#343)	343	male	study skin, complete skull
373	MVZ	41957	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#344)	344	male	study skin, complete skull
374	UMNH	26199	Peromyscus	maniculatus	Deer mouse	Egoscue, H.J.	1550	male	skin & skull
375	MVZ	41977	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2939), Robert D. Moore	2939	female	study skin, complete skull
376	MVZ	41978	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2940), Robert D. Moore	2940	female	study skin, complete skull
377	MVZ	41980	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2953)	2953	male	study skin, complete skull
378	MVZ	41981	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2954)	2954	male	study skin, complete skull
379	MVZ	84093	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#5545)	5545	male	study skin, complete skull
380	MVZ	41979	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2944)	2944	female	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
381	MVZ	41974	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2934)	2934	male	study skin, complete skull
382	MVZ	41975	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2935)	2935	male	study skin, complete skull
383	MVZ	41976	Peromyscus	maniculatus	Deer mouse	E. Raymond Hall (#2936)	2936	male	study skin, complete skull
384	MVZ	88107	Peromyscus	maniculatus	Deer mouse	J. R. Alcorn (#340)	340	male	study skin, complete skull
385	MVZ	88108	Peromyscus	maniculatus	Deer mouse	William M. Longhurst (#1414), J. R. Alcorn	1414	male	study skin, complete skull
386	MVZ	41982	Peromyscus	maniculatus	Deer mouse	Robert D. Moore (#5195), E. Raymond Hall	5195	male	study skin, complete skull
387	UMNH	25485	Peromyscus	truei	Piñon mouse	Egoscue, H.J.	1165	male	SKIN & SKULL
388	UWBM	67388	Peromyscus	truei	Piñon mouse	Collector: R. Underhill; Prep: R. Underhill		male	skin/skull
389	UWBM	41999	Peromyscus	truei	Piñon mouse	Collector: R. Underhill; Prep: R. Underhill		male	skin/skull
390	MVZ	41877	Peromyscus	truei	Piñon mouse	Ward C. Russell (#331)	331	male	study skin, complete skull
391	MVZ	41878	Peromyscus	truei	Piñon mouse	E. Raymond Hall (#2802), Ward C. Russell	2802	male	study skin, complete skull
392	MVZ	41879	Peromyscus	truei	Piñon mouse	Ward C. Russell (#338)	338	male	study skin, complete skull
393	UMNH	28230	Onychomys	leucogaster	Northern grasshopper mouse	Egoscue, H.J.	1599	female	skin & skull
394	MSB	66106	Onychomys	leucogaster	Northern grasshopper mouse			female	skin, skull, and body skeleton
395	MSB	66102	Onychomys	leucogaster	Northern grasshopper mouse			male	skin, skull, and body skeleton
396	MSB	66103	Onychomys	leucogaster	Northern grasshopper mouse			male	skin, skull, and body skeleton
397	MSB	66104	Onychomys	leucogaster	Northern grasshopper mouse			male	skin, skull, and body skeleton
398	MSB	66105	Onychomys	leucogaster	Northern grasshopper mouse			female	skin, skull, and body skeleton
399	MVZ	41851	Onychomys	leucogaster	Northern grasshopper mouse	Ward C. Russell (#278)	278	female	study skin, complete skull
400	MVZ	41852	Onychomys	leucogaster	Northern grasshopper mouse	Ward C. Russell (#279)	279	female	study skin, complete skull
401	MVZ	41853	Onychomys	leucogaster	Northern grasshopper mouse	Ward C. Russell (#280)	280	male	study skin, complete skull
402	MVZ	41854	Onychomys	leucogaster	Northern grasshopper mouse	Ward C. Russell (#281)	281	female	study skin, complete skull
403	MVZ	41855	Onychomys	leucogaster	Northern grasshopper mouse	Ward C. Russell (#282)	282	male	study skin, complete skull
404	MVZ	41856	Onychomys	leucogaster	Northern grasshopper mouse	Ward C. Russell (#289)	289	female	study skin, complete skull
405	MVZ	41857	Onychomys	leucogaster	Northern grasshopper mouse	E. Raymond Hall (#2899)	2899	female	study skin, complete skull
406	MVZ	42014	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#349)	349	male	study skin, complete skull
407	MVZ	42015	Neotoma	cinerea	Bushy-tailed woodrat	E. Raymond Hall (#2829)	2829	female	study skin, complete skull
408	MVZ	41985	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#369)	369	female	study skin, complete skull
409	MVZ	41986	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#370)	370	male	study skin, complete skull
410	MVZ	42016	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#358)	358	female	study skin, complete skull
411	MVZ	42017	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#359)	359	female	study skin, complete skull
412	MVZ	183911	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell		male	complete skeleton, complete skull
413	MVZ	41989	Neotoma	cinerea	Bushy-tailed woodrat	Robert D. Moore (#298)	298	male	study skin, complete skull
414	MVZ	41990	Neotoma	cinerea	Bushy-tailed woodrat	Robert D. Moore (#299)	299	female	study skin, complete skull
415	MVZ	42006	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#315)	315	male	study skin, complete skull
416	MVZ	42007	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#316)	316	male	study skin, complete skull
417	MVZ	42008	Neotoma	cinerea	Bushy-tailed woodrat	E. Raymond Hall (#2722)	2722	female	study skin, complete skull
418	MVZ	42009	Neotoma	cinerea	Bushy-tailed woodrat	E. Raymond Hall (#2728)	2728	male	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
419	MVZ	42010	Neotoma	cinerea	Bushy-tailed woodrat	E. Raymond Hall (#2729)	2729	female	study skin, complete skull
420	MVZ	41983	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#364)	364	male	study skin, complete skull
421	MVZ	41984	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#367)	367	male	study skin, complete skull
422	MVZ	41987	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#380)	380	male	study skin, complete skull
423	MVZ	41988	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#381)	381	female	study skin, complete skull
424	MVZ	41991	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#2854), E. Raymond Hall	2854	female	study skin, complete skull
425	MVZ	41992	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#2855), E. Raymond Hall	2855	female	study skin, complete skull
426	MVZ	42004	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#454)	454	male	study skin, complete skull
427	MVZ	42018	Neotoma	cinerea	Bushy-tailed woodrat	E. Raymond Hall (#2884)	2884	female	study skin, complete skull
428	MVZ	41993	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#400)	400	male	study skin, complete skull
429	MVZ	41994	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#401)	401	female	study skin, complete skull
430	MVZ	41995	Neotoma	cinerea	Bushy-tailed woodrat	Robert D. Moore (#325)	325	female	study skin, complete skull
431	MVZ	41996	Neotoma	cinerea	Bushy-tailed woodrat	Robert D. Moore (#336)	336	male	study skin, complete skull
432	MVZ	41997	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#2875), E. Raymond Hall	2875	male	study skin, complete skull
433	MVZ	41998	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#2876), E. Raymond Hall	2876	female	study skin, complete skull
434	MVZ	41999	Neotoma	cinerea	Bushy-tailed woodrat	Robert D. Moore (#339)	339	male	study skin, complete skull
435	MVZ	42000	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#407)	407	female	study skin, complete skull
436	MVZ	42001	Neotoma	cinerea	Bushy-tailed woodrat	Robert D. Moore (#346)	346	female	study skin, complete skull
437	MVZ	42002	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#410)	410	female	study skin, complete skull
438	MVZ	42003	Neotoma	cinerea	Bushy-tailed woodrat	Ward C. Russell (#2895), E. Raymond Hall	2895	female	study skin, complete skull
439	MVZ	42005	Neotoma	cinerea	Bushy-tailed woodrat	Robert D. Moore (#402)	402	male	study skin, complete skull
440	MVZ	42021	Neotoma	lepida	Desert woodrat	E. Raymond Hall (#2701)	2701	female	complete skeleton, complete skull
441	MVZ	42023	Neotoma	lepida	Desert woodrat	E. Raymond Hall (#2747)	2747	male	study skin, complete skull
442	MVZ	42025	Neotoma	lepida	Desert woodrat	E. Raymond Hall (#2794), Ward C. Russell	2794	female	study skin, complete skull
443	MVZ	42043	Neotoma	lepida	Desert woodrat	Robert D. Moore (#302)	302	male	study skin, complete skull
444	UMNH	27294	Neotoma	lepida	Desert woodrat	Egoscue, H.J.	1168	male	skin & skull
445	MVZ	42044	Neotoma	lepida	Desert woodrat	Ward C. Russell (#446)	446	female	study skin, complete skull
446	MVZ	42045	Neotoma	lepida	Desert woodrat	Ward C. Russell (#447)	447	male	study skin, complete skull
447	MVZ	42034	Neotoma	lepida	Desert woodrat	Ward C. Russell (#360)	360	male	study skin, complete skull
448	MVZ	42042	Neotoma	lepida	Desert woodrat	Robert D. Moore (#1380), Ward C. Russell	1380	male	study skin, complete skull
449	MVZ	42026	Neotoma	lepida	Desert woodrat	Ward C. Russell (#344)	344	female	study skin, complete skull
450	MVZ	42027	Neotoma	lepida	Desert woodrat	Ward C. Russell (#345)	345	male	study skin, complete skull
451	MVZ	42028	Neotoma	lepida	Desert woodrat	Ward C. Russell (#346)	346	male	study skin, complete skull
452	MVZ	42029	Neotoma	lepida	Desert woodrat	Ward C. Russell (#347)	347	male	study skin, complete skull
453	MVZ	42030	Neotoma	lepida	Desert woodrat	Ward C. Russell (#348)	348	male	study skin, complete skull
454	MVZ	42031	Neotoma	lepida	Desert woodrat	Ward C. Russell (#354)	354	female	study skin, complete skull
455	MVZ	42032	Neotoma	lepida	Desert woodrat	Ward C. Russell (#355)	355	female	study skin, complete skull
456	MVZ	42033	Neotoma	lepida	Desert woodrat	Ward C. Russell (#357)	357	female	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
457	MVZ	42035	Neotoma	lepida	Desert woodrat	Ward C. Russell (#365)	365	female	study skin, complete skull
458	MVZ	42036	Neotoma	lepida	Desert woodrat	Ward C. Russell (#366)	366	female	study skin, complete skull
459	MVZ	42037	Neotoma	lepida	Desert woodrat	Ward C. Russell (#368)	368	male	study skin, complete skull
460	MVZ	42038	Neotoma	lepida	Desert woodrat	Ward C. Russell (#371)	371	male	study skin, complete skull
461	MVZ	42039	Neotoma	lepida	Desert woodrat	Ward C. Russell (#372)	372	male	study skin, complete skull
462	MVZ	42040	Neotoma	lepida	Desert woodrat	Ward C. Russell (#373)	373	male	study skin, complete skull
463	MVZ	42041	Neotoma	lepida	Desert woodrat	E. Raymond Hall (#2840), Ward C. Russell	2840	female	study skin, complete skull
464	MVZ	42024	Neotoma	lepida	Desert woodrat	E. Raymond Hall (#2755)	2755	male	study skin, complete skull
465	MVZ	42046	Neotoma	lepida	Desert woodrat	Robert D. Moore (#308)	308	male	skull & skeleton
466	MVZ	42022	Neotoma	lepida	Desert woodrat	E. Raymond Hall (#2702)	2702	female	study skin, complete skull
467	MVZ	175303	Lemmiscus	curtatus	Sagebrush vole	D. Giuliani		unk	whole animal (alcohol)
468	MVZ	175304	Lemmiscus	curtatus	Sagebrush vole	D. Giuliani		unk	whole animal (alcohol)
469	MVZ	42069	Lemmiscus	curtatus	Sagebrush vole	E. Raymond Hall (#2828)	2828	female	study skin, complete skull
470	MVZ	42070	Lemmiscus	curtatus	Sagebrush vole	E. Raymond Hall (#2834)	2834	female	study skin, complete skull
471	MVZ	46312	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#503)	503	male	study skin, complete skull
472	MVZ	46314	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#508)	508	female	study skin, complete skull
473	MVZ	46315	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#509)	509	female	study skin, complete skull
474	MVZ	46389	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#506)	506	male	complete skeleton, complete skull
475	MVZ	42065	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#5256), E. Raymond Hall	5256	male	study skin, complete skull
476	MVZ	42066	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#1182), E. Raymond Hall	1182	male	study skin, complete skull
477	MVZ	42062	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#330)	330	male	study skin, complete skull
478	MVZ	42063	Microtus	longicaudus	Long-tailed vole	Robert D. Moore (#341)	341	female	study skin, complete skull
479	MVZ	42064	Microtus	longicaudus	Long-tailed vole	Ward C. Russell (#408)	408	male	study skin, complete skull
480	UMNH	26756	Microtus	longicaudus	Long-tailed vole	Egoscue, H.J.	1545	female	study skin, complete skull
481	UMNH	26509	Microtus	longicaudus	Long-tailed vole	Egoscue, H.J.	1547	male	study skin, complete skull
482	MVZ	84094	Microtus	longicaudus	Long-tailed vole	E. Raymond Hall (#5544)	5544	male	study skin, complete skull
483	MVZ	42067	Microtus	longicaudus	Long-tailed vole	E. Raymond Hall (#2931)	2931	male	study skin, complete skull
484	MVZ	42068	Microtus	longicaudus	Long-tailed vole	E. Raymond Hall (#2932)	2932	female	study skin, complete skull
485	MVZ	88122	Microtus	longicaudus	Long-tailed vole	J. R. Alcorn (#339)	339	male	study skin, complete skull
486	MVZ	88123	Microtus	longicaudus	Long-tailed vole	William M. Longhurst (#1348), J. R. Alcorn	1348	female	study skin, complete skull
487	MVZ	88124	Microtus	longicaudus	Long-tailed vole	J. R. Alcorn (#344)	344	male	study skin, complete skull
488	MVZ	88125	Microtus	longicaudus	Long-tailed vole	J. R. Alcorn (#349)	349	male	study skin, complete skull
489	MVZ	42048	Microtus	montanus	Montane vole	E. Raymond Hall (#2707)	2707	male	study skin, complete skull
490	MVZ	42049	Microtus	montanus	Montane vole	E. Raymond Hall (#2709)	2709	male	study skin, complete skull
491	MVZ	42050	Microtus	montanus	Montane vole	E. Raymond Hall (#2710)	2710	male	study skin, complete skull
492	MVZ	42051	Microtus	montanus	Montane vole	E. Raymond Hall (#2711)	2711	male	study skin, complete skull
493	MVZ	42052	Microtus	montanus	Montane vole	E. Raymond Hall (#2740)	2740	female	study skin, complete skull
494	MVZ	42060	Microtus	montanus	Montane vole	E. Raymond Hall (#2912)	2912	female	study skin, complete skull

Appendix 1. Historical specimen records of mammals (other than bats) from the Great Basin National Park region.

	Museum acronym	Catnum	Genus	species	Common name	Collector	Field number	Sex	Preparation type
495	MVZ	42061	Microtus	montanus	Montane vole	Ward C. Russell (#432)	432	male	complete skeleton, complete skull
496	MVZ	42053	Microtus	montanus	Montane vole	Ward C. Russell (#319)	319	male	study skin, complete skull
497	MVZ	42054	Microtus	montanus	Montane vole	E. Raymond Hall (#2743)	2743	female	study skin, complete skull
498	MVZ	42055	Microtus	montanus	Montane vole	E. Raymond Hall (#2784)	2784	unk	study skin, complete skull
499	MVZ	42056	Microtus	montanus	Montane vole	E. Raymond Hall (#2792)	2792	male	study skin, complete skull
500	MVZ	42057	Microtus	montanus	Montane vole	E. Raymond Hall (#2796)	2796	male	study skin, complete skull
501	MVZ	42058	Microtus	montanus	Montane vole	E. Raymond Hall (#2808)	2808	female	study skin, complete skull
502	MVZ	42059	Microtus	montanus	Montane vole	E. Raymond Hall (#2843)	2843	male	study skin, complete skull
503	MVZ	183845	Microtus	montanus	Montane vole	E. Raymond Hall		male	complete skeleton, complete skull
504	MVZ	46313	Microtus	montanus	Montane vole	Robert D. Moore (#507)	507	male	study skin, complete skull
505	UMNH	26636	Microtus	montanus	Montane vole	Egoscue, H.J.	1544	female	SKIN & SKULL
506	UMNH	27177	Microtus	montanus	Montane vole	Egoscue, H.J.	1548	male	SKIN ONLY
507	MVZ	41874	Mus	musculus	House mouse	E. Raymond Hall (#2713)	2713	male	study skin, complete skull
508	MVZ	41875	Mus	musculus	House mouse	E. Raymond Hall (#2714)	2714	male	study skin, complete skull
509	MVZ	41876	Mus	musculus	House mouse	E. Raymond Hall (#2715)	2715	female	study skin, complete skull
510	MVZ	42073	Erethizon	dorsatum	Porcupine	Ward C. Russell (#375)	375	female	study skin, partial skeleton, complete skull
511	MVZ	42072	Erethizon	dorsatum	Porcupine	E. Raymond Hall (#2721)	2721	unknown	partial skull
512	MVZ	42080	Erethizon	dorsatum	Porcupine	E. Raymond Hall (#2955)	2955	female	study skin, complete skull
513	MVZ	42071	Erethizon	dorsatum	Porcupine	E. Raymond Hall (#2635)	2635	unk	complete skull
514	MVZ	129388	Erethizon	dorsatum	Porcupine	Ned K. Johnson (#1627)	1627	unk	partial skull
515	MVZ	42074	Erethizon	dorsatum	Porcupine	E. Raymond Hall (#2847)	2847	male	complete skull
516	MVZ	42075	Erethizon	dorsatum	Porcupine	E. Raymond Hall (#2848)	2848	unk	partial skull
517	MVZ	42076	Erethizon	dorsatum	Porcupine	J. R. Alcorn (#1768)	1768	female	study skin, complete skull
518	MVZ	42077	Erethizon	dorsatum	Porcupine	J. R. Alcorn (#1768)	1768	female	study skin, partial skeleton, complete skull
519	MVZ	42078	Erethizon	dorsatum	Porcupine	J. R. Alcorn (#1768)	1768	female	study skin, partial skeleton, complete skull
520	MVZ	88130	Erethizon	dorsatum	Porcupine	J. R. Alcorn		unk	complete skull
521	MVZ	42079	Erethizon	dorsatum	Porcupine	Robert D. Moore (#395)	395	male	study skin, partial skeleton, complete skull
522	MVZ	42085	Odocoileus	hemionus	Mule deer	E. Raymond Hall (#2636)	2636	unk	partial skull
523	MVZ	42086	Odocoileus	hemionus	Mule deer	Ward C. Russell (#387)	387	male	pelt skin, complete skull
524	MVZ	42090	Ovis	canadensis	Bighorn	E. Raymond Hall (#2960), D. C. Robinson	2960	unk	horn
525	MVZ	88137	Ovis	canadensis	Bighorn	J. R. Alcorn (#354)	354	unk	partial skull
526	MVZ	88136	Ovis	canadensis	Bighorn	J. R. Alcorn (#345)	345	unk	complete skull

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)	
43	1	MVZ	175243	2 mi S Baker	N	1983	9	1	38.98434	-114.12194	NAD27	5500
	2	MVZ	41472	Lehman Creek	Y	1929	5	25	39.01365	-114.26835	NAD27	8400
	3	MVZ	88048	Baker Creek	Y	1939	8	14	38.97485	-114.31475	NAD27	11000
	4	MVZ	88049	Baker Creek	Y	1939	8	15	38.97485	-114.31475	NAD27	11000
	5	MVZ	88050	Baker Creek	Y	1939	8	16	38.97485	-114.31475	NAD27	11000
	6	MVZ	41471	Baker Creek	Y	1929	6	7	38.99295	-114.20095	NAD27	6600
	7	MVZ	45887	Baker Creek	Y	1930	7	28	38.97275	-114.27075	NAD27	9000
	8	MVZ	45888	Baker Creek	Y	1930	7	28	38.97275	-114.27075	NAD27	9000
	9	UMNH	26574	Head of Lehman Creek	Y	1969	9	27	39.01125	-114.29520	NAD27	9650
	10	MVZ	88042	Baker Creek	Y	1939	8	14	38.97485	-114.31475	NAD27	11100
	11	MVZ	88043	Baker Creek	Y	1939	8	15	38.97485	-114.31475	NAD27	11100
	12	MVZ	88044	Baker Creek	Y	1939	8	15	38.97485	-114.31475	NAD27	11100
	13	MVZ	88045	Baker Creek	Y	1939	8	16	38.97485	-114.31475	NAD27	11100
	14	MVZ	41513	Pole Canyon, W slope Snake Mtns.	Y	1929	6	28	38.90360	-114.33530	NAD27	8000
	15	MVZ	129389	Lexington Creek, Snake Range	Y	1962	6	21	38.87472	-114.00500	NAD27	6700
	16	MVZ	47145	mouth of Snake Creek	N	1931	1	1	38.94167	-114.02278	NAD27	
	17	GRBA	2597	Baker Creek trail	Y	1993						
	18	MVZ	41501	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
	19	MVZ	41502	Baker Creek	Y	1929	6	19	38.97230	-114.26060	NAD27	8675
	20	MVZ	88059	Baker Creek	Y	1939	8	16	38.97485	-114.31475	NAD27	11100
	21	MVZ	41504	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
	22	MVZ	41505	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
	23	MVZ	41506	Baker Creek	Y	1929	6	6	38.99295	-114.20095	NAD27	6600
	24	MVZ	41507	Baker Creek	Y	1929	6	6	38.99295	-114.20095	NAD27	6600
	25	MVZ	41508	Baker Creek	Y	1929	6	25	38.97325	-114.25470	NAD27	8400
	26	MVZ	41509	Baker Creek	Y	1929	6	25	38.97310	-114.25550	NAD27	8450
	27	MVZ	41510	Baker Creek	Y	1929	6	25	38.97310	-114.25550	NAD27	8450
	28	MVZ	41511	Baker Creek	Y	1929	6	25	38.97310	-114.25550	NAD27	8450
	29	MVZ	134142	Strawberry Creek, Smoke Ridge	Y	1964	6	8	39.09500	-114.22917	NAD27	8500
	30	MVZ	41499	Lehman Creek	Y	1929	5	26	39.01270	-114.26180	NAD27	8100
	31	MVZ	88066	1 mi SW head of Chokecherry Creek	N	1939	3	7	38.77056	-114.08806	NAD27	
	32	MVZ	88067	S end Snake Range	Y?	1939	8	17	39.21667	-114.20000	NAD27	
	33	MVZ	154377	Wheeler Range	Y?	1969	3	18				
	34	MVZ	154385	Wheeler Range	Y?	1969	3	18				
	35	MVZ	44133	Pole Canyon, Spring Valley	Y	1929	7	19	38.90360	-114.33530	NAD27	8000
	36	MVZ	47146	mouth of Snake Creek	N	1931	1	1	38.94167	-114.02278	NAD27	
	37	MVZ	42084	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
	38	MVZ	42082	Lehman Cave	Y	1929	6	5	39.00556	-114.21944	NAD27	7200

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
39	MVZ	42081	Lehman Creek	Y	1929	5	26	39.01285	-114.26650	NAD27	8300
40	MVZ	132527	Snake Creek	Y	1963	10	15	38.94167	-114.02278	NAD27	8500
41	MVZ	42083	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
42	MVZ	129385	Lexington Creek, Snake Range	Y	1962	6	18	38.87472	-114.00500	NAD27	6700
43	UMNH	25737	Sacramento Pass, Snake Range	N	1966	11	2	39.14361	-114.33583	NAD27	6700
44	MVZ	41565	0.5 mi S Lehman Cave	Y	1929	6	7	38.99831	-114.21944	NAD27	7200
45	MVZ	41566	Lehman Cave	Y	1929	6	7	39.00556	-114.21944	NAD27	7400
46	MVZ	41564	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
47	MVZ	41562	Lehman Cave	Y	1929	6	2	39.00556	-114.21944	NAD27	7500
48	MVZ	41563	Lehman Cave	Y	1929	6	2	39.00556	-114.21944	NAD27	7500
49	MVZ	41609	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
50	MVZ	41610	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
51	MVZ	41611	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
52	MVZ	41612	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
53	MVZ	41613	Baker	N	1929	6	3	39.01333	-115.33111	NAD27	5300
54	MVZ	41614	Baker	N	1929	6	3	39.01333	-115.33111	NAD27	5300
55	MVZ	41632	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
56	MVZ	41633	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
57	MVZ	41634	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
58	MVZ	41635	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
59	MVZ	41636	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
60	MVZ	41637	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
61	MVZ	41638	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
62	MVZ	41639	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
63	MVZ	41640	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
64	MVZ	41631	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
65	MVZ	41603	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
66	MVZ	41615	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
67	MVZ	41616	Baker Creek	Y	1929	6	6	38.99295	-114.20095	NAD27	6600
68	MVZ	41617	Baker Creek	Y	1929	6	6	38.99295	-114.20095	NAD27	6600
69	MVZ	41618	Baker Creek	Y	1929	6	7	38.99295	-114.20095	NAD27	6600
70	MVZ	41619	Baker Creek	Y	1929	6	7	38.99295	-114.20095	NAD27	6600
71	MVZ	41604	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
72	MVZ	41605	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
73	MVZ	41620	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
74	MVZ	41621	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
75	MVZ	41622	Baker Creek	Y	1929	6	11	38.99075	-114.22700	NAD27	7200
76	MVZ	41623	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
77	MVZ	41624	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
78	MVZ	41625	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
79	MVZ	41626	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
80	MVZ	41642	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
81	MVZ	129386	Strawberry Creek, Snake Ridge	Y	1962	6	28	39.09500	-114.22917	NAD27	8000
82	MVZ	41607	Lehman Creek	Y	1929	5	24	39.01220	-114.26445	NAD27	8200
83	MVZ	41643	Willard Creek, Spring Valley	Y	1929	7	3	39.03560	-114.34915	NAD27	8200
84	MVZ	41627	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
85	MVZ	41628	Baker Creek	Y	1929	6	19	38.97230	-114.26060	NAD27	8675
86	MVZ	41629	Baker Creek	Y	1929	6	20	38.97230	-114.26060	NAD27	8675
87	MVZ	41630	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
88	UMNH	29308	Baker Creek	Y	1983	10	30	38.99295	-114.20095	NAD27	6200
89	UMNH	29300	Baker Creek	Y	1983	10	30	38.99295	-114.20095	NAD27	6200
90	UWBM	43115	Lehman Caves;	Y	1941	5	29	39.00540	-114.21893	NAD27	6850
91	MVZ	41570	mouth Pole Canyon, S side, Baker Creek	Y	1929	6	13	38.98890	-114.21500	NAD27	7500
92	MVZ	41571	mouth Pole Canyon, S side, Baker Creek	Y	1929	6	13	38.98890	-114.21500	NAD27	7500
93	MVZ	41572	mouth Pole Canyon, S side, Baker Creek	Y	1929	6	13	38.98890	-114.21500	NAD27	7500
94	MVZ	41573	mouth Pole Canyon, S side, Baker Creek	Y	1929	6	13	38.98890	-114.21500	NAD27	7500
95	MVZ	41574	mouth Pole Canyon, S side, Baker Creek	Y	1929	6	15	38.98890	-114.21500	NAD27	7500
96	MVZ	41575	mouth Pole Canyon, S side, Baker Creek	Y	1929	6	15	38.98890	-114.21500	NAD27	7500
97	MVZ	41576	mouth Pole Canyon, S side, Baker Creek	Y	1929	6	15	38.98890	-114.21500	NAD27	7500
98	MVZ	41589	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
99	MVZ	41590	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
100	MVZ	41591	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
101	MVZ	41569	Pole Canyon, Snake Mts.	Y	1929	6	5	38.98890	-114.21500	NAD27	8000
102	UMNH	29307	Lehman Creek Canyon, 8 MI W Baker	Y	1985	6	10	39.01270	-114.26180	NAD27	8100
103	UMNH	29303	Lehman Creek Canyon, 8 MI W Baker	Y	1985	6	10	39.01270	-114.26180	NAD27	8100
104	MVZ	41592	Baker Creek	Y	1929	6	26	38.97340	-114.25245	NAD27	8300
105	MVZ	41593	Baker Creek	Y	1929	6	26	38.97340	-114.25245	NAD27	8300
106	MVZ	41594	Baker Creek	Y	1929	6	26	38.97340	-114.25245	NAD27	8300
107	MVZ	41595	Baker Creek	Y	1929	6	26	38.97340	-114.25245	NAD27	8300
108	MVZ	41578	S side Baker Creek	Y	1929	6	17	38.96917	-114.28000	NAD27	8600
109	MVZ	41577	S side Baker Creek	Y	1929	6	17	38.96917	-114.28000	NAD27	8650
110	MVZ	41581	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
111	MVZ	41582	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
112	MVZ	41583	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
113	MVZ	41584	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
114	MVZ	41585	Baker Creek	Y	1929	6	20	38.97230	-114.26060	NAD27	8675

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
115	MVZ	41586	Baker Creek	Y	1929	6	20	38.97230	-114.26060	NAD27	8675
116	MVZ	41587	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
117	MVZ	41588	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
118	MVZ	41568	Lehman Creek	Y	1929	5	24	39.01620	-114.27360	NAD27	8700
119	MVZ	41579	S side Baker Creek	Y	1929	6	17	38.96917	-114.28000	NAD27	8800
120	MVZ	41580	S side Baker Creek	Y	1929	6	18	38.96917	-114.28000	NAD27	9000
121	MVZ	41567	E side Wheeler Peak	Y	1929	5	24	39.01722	-114.10722	NAD27	9300
122	UMNH	26224	Head of Lehman Creek, E side Wheeler Pk	Y	1969	9	27	39.01125	-114.29520	NAD27	9560
123	MVZ	41596	0.5 mi E Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.30738	NAD27	10400
124	MVZ	41598	0.5 mi E Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.30738	NAD27	10400
125	MVZ	41599	0.5 mi E Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.30738	NAD27	10400
126	MVZ	41597	0.5 mi E Stella Lake, Snake Mts.	Y	1929	7	7	39.00500	-114.30738	NAD27	10500
127	MVZ	41601	0.5 mi W Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.32596	NAD27	10500
128	MVZ	41602	0.5 mi W Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.32596	NAD27	10500
129	MVZ	84086	Stella Lake, Snake Mts.	Y	1938	8	8	39.00500	-114.31667	NAD27	10500
130	MVZ	84087	Stella Lake, Snake Mts.	Y	1938	8	10	39.00500	-114.31667	NAD27	10500
131	MVZ	84088	Stella Lake, Snake Mts.	Y	1938	8	10	39.00500	-114.31667	NAD27	10500
132	MVZ	84089	Stella Lake, Snake Mts.	Y	1938	8	10	39.00500	-114.31667	NAD27	10500
133	MVZ	84090	Stella Lake, Snake Mts.	Y	1938	8	10	39.00500	-114.31667	NAD27	10500
134	MVZ	84091	Stella Lake, Snake Mts.	Y	1938	8	10	39.00500	-114.31667	NAD27	10500
135	MVZ	41600	Teresa Lake, Snake Mts.	Y	1929	7	8	39.00306	-114.31056	NAD27	10500
136	MVZ	88072	head of Baker Creek	Y	1936	8	13	38.97485	-114.31475	NAD27	11100
137	MVZ	41560	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
138	MVZ	41561	7 mi SW Osceola, Spring Valley	N	1929	6	29	39.01881	-114.47679	NAD27	6275
139	MVZ	41559	Baker Creek	Y	1929	6	17	38.98995	-114.21580	NAD27	6900
140	MVZ	41557	1 mi E Lehman Cave	Y	1929	6	5	39.00556	-114.20086	NAD27	7000
141	MVZ	41558	Baker Creek	Y	1929	6	13	38.98995	-114.21580	NAD27	7000
142	MVZ	41531	Lehman Creek	Y	1929	5	25	39.01220	-114.26445	NAD27	8200
143	MVZ	41536	Baker Creek	Y	1929	6	23	38.97325	-114.25470	NAD27	8400
144	MVZ	41538	Baker Creek	Y	1929	6	24	38.97325	-114.25470	NAD27	8400
145	MVZ	41539	Baker Creek	Y	1929	6	24	38.97325	-114.25470	NAD27	8400
146	MVZ	41540	Baker Creek	Y	1929	6	24	38.97325	-114.25470	NAD27	8400
147	MVZ	41532	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
148	MVZ	41533	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
149	MVZ	41534	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
150	MVZ	41535	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
151	MVZ	41537	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
152	MVZ	41547	0.5 mi Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.31667	NAD27	10400

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
153	MVZ	41553	0.5 mi Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.31667	NAD27	10400
154	MVZ	41554	0.5 mi Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.31667	NAD27	10400
155	MVZ	41555	0.5 mi Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.31667	NAD27	10400
156	MMNH	13572	Snake Mtns., Stella Lake, 10,750 ft.	Y	1929	7	8	39.00555	-114.31706	NAD27	10750
157	MVZ	41546	Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.31667	NAD27	10750
158	MVZ	41548	Stella Lake, Snake Mts.	Y	1929	7	7	39.00500	-114.31667	NAD27	10750
159	MVZ	41549	Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.31667	NAD27	10750
160	MVZ	41550	Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.31667	NAD27	10750
161	MVZ	41551	Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.31667	NAD27	10750
162	MVZ	41552	Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.31667	NAD27	10750
163	MVZ	41556	0.75 mi N Stella Lake	Y	1929	7	9	39.01587	-114.31667	NAD27	11200
164	MVZ	41529	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
165	MVZ	41530	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
166	MVZ	41517	Baker Creek	Y	1929	6	14	38.98965	-114.22965	NAD27	7300
167	MVZ	41516	Baker Creek	Y	1929	6	6	38.98930	-114.23395	NAD27	7400
168	MVZ	41519	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
169	MVZ	41520	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
170	MVZ	41521	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
171	MVZ	41522	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
172	MVZ	41523	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
173	MVZ	45926	Baker Creek	Y	1930	7	27	38.97595	-114.24515	NAD27	8000
174	MVZ	45949	Baker Creek	Y	1930	7	28	38.97595	-114.24515	NAD27	8000
175	MVZ	129384	Snake Creek, Snake Range	Y	1962	6	3	38.94167	-114.02278	NAD27	8400
176	MVZ	41518	Baker Creek	Y	1929	6	25	38.97310	-114.25550	NAD27	8450
177	NSMC	1	1 mi. NE Baker	N	1968	7	31				
178	NSMC	2	1 mi. NE Baker	N	1968	7	31				
179	MVZ	41741	7 mi SW Osceola, Spring Valley	N	1929	6	6	39.01881	-114.47679	NAD27	6100
180	MVZ	41742	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
181	MVZ	41740	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
182	MVZ	41725	2 mi SE Lehman Cave	Y	1929	6	6	38.98506	-114.19317	NAD27	6700
183	MVZ	41728	2 mi SE Lehman Cave	Y	1929	6	6	38.98506	-114.19317	NAD27	6700
184	MVZ	41729	2 mi SE Lehman Cave	Y	1929	6	6	38.98506	-114.19317	NAD27	6700
185	UWBM	47011	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
186	MVZ	41743	Willard Creek, Spring Valley	N	1929	7	1	39.02925	-114.37605	NAD27	7150
187	MVZ	41744	Willard Creek, Spring Valley	N	1929	7	1	39.02925	-114.37605	NAD27	7150
188	MVZ	41745	Willard Creek, Spring Valley	N	1929	7	1	39.02925	-114.37605	NAD27	7150
189	MVZ	41746	Willard Creek, Spring Valley	N	1929	7	1	39.02925	-114.37605	NAD27	7150
190	MVZ	41747	Willard Creek, Spring Valley	N	1929	7	1	39.02925	-114.37605	NAD27	7150

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)	
48	191	MVZ	41730	Baker Creek	Y	1929	6	9	38.99075	-114.22700	NAD27	7200
	192	MVZ	41731	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
	193	MVZ	41732	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
	194	MVZ	41733	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
	195	MVZ	41734	Baker Creek	Y	1929	6	11	38.99075	-114.22700	NAD27	7200
	196	MVZ	41735	Baker Creek	Y	1929	6	11	38.99075	-114.22700	NAD27	7200
	197	MVZ	41736	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
	198	MVZ	41737	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
	199	MVZ	41738	mouth of Pole Canyon, Snake Mts.	Y	1929	6	15	38.98890	-114.21500	NAD27	7250
	200	MVZ	41726	Baker Creek	Y	1929	6	5	38.98805	-114.23820	NAD27	7500
	201	MVZ	41727	Baker Creek	Y	1929	6	5	38.98805	-114.23820	NAD27	7500
	202	MVZ	41748	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
	203	MVZ	41749	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
	204	MVZ	41750	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
	205	MVZ	41752	Willard Creek, Spring Valley	N	1929	7	3	39.03160	-114.36200	NAD27	7700
	206	MVZ	41739	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
	207	MVZ	41751	Willard Creek, Spring Valley	Y	1929	7	3	39.03620	-114.34750	NAD27	8300
	208	NSMC	3	1 mi. NE Baker	N	?						
	209	MVZ	41761	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	210	MVZ	41762	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	211	MVZ	41763	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	212	MVZ	41764	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	213	MVZ	41765	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	214	MVZ	41766	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	215	MVZ	41767	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	216	MVZ	41768	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
	217	MVZ	41769	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
	218	MVZ	41770	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
219	MVZ	41771	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800	
220	MVZ	41772	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800	
221	MVZ	41773	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800	
222	MVZ	41774	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800	
223	MVZ	41775	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800	
224	MVZ	41776	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6100	
225	MVZ	41777	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6100	
226	MVZ	41778	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6100	
227	MVZ	41779	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100	
228	MVZ	41780	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100	

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
229	MVZ	41781	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
230	MVZ	41782	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
231	MVZ	41783	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
232	MVZ	41784	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
233	NSMC	171	near Baker	N	1968	7	31				
234	UWBM	45759	Lehman Caves;	Y	1948	5	30	39.00540	-114.21893	NAD27	6850
235	MVZ	41845	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
236	MVZ	41846	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
237	MVZ	41823	7 mi SW Osceola, Spring Valley	N	1929	6	27	39.01881	-114.47679	NAD27	6275
238	MVZ	41824	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
239	MVZ	41825	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
240	MVZ	41826	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
241	MVZ	41827	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
242	MVZ	41828	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
243	MVZ	41829	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
244	MVZ	41830	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
245	MVZ	41831	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
246	MVZ	41832	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
247	MVZ	41833	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
248	MVZ	41834	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
249	MVZ	41835	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
250	MVZ	41836	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
251	MVZ	41837	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
252	MVZ	41838	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
253	MVZ	41839	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
254	MVZ	41840	7 mi SW Osceola, Spring Valley	N	1929	6	29	39.01881	-114.47679	NAD27	6275
255	MVZ	41841	7 mi SW Osceola, Spring Valley	N	1929	6	29	39.01881	-114.47679	NAD27	6275
256	MVZ	41842	7 mi SW Osceola, Spring Valley	N	1929	6	29	39.01881	-114.47679	NAD27	6275
257	MVZ	41843	7 mi SW Osceola, Spring Valley	N	1929	6	29	39.01881	-114.47679	NAD27	6275
258	MVZ	41844	7 mi SW Osceola, Spring Valley	N	1929	6	29	39.01881	-114.47679	NAD27	6275
259	MVZ	41695	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
260	MVZ	41696	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
261	MVZ	41697	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
262	MVZ	41698	Baker Creek	Y	1929	6	7	38.99295	-114.20095	NAD27	6600
263	MVZ	41699	Baker Creek	Y	1929	6	7	38.99295	-114.20095	NAD27	6600
264	MVZ	41700	Baker Creek	Y	1929	6	8	38.99295	-114.20095	NAD27	6600
265	MVZ	41701	Baker Creek	Y	1929	6	8	38.99295	-114.20095	NAD27	6600
266	MVZ	41708	Willard Creek, Spring Valley	N	1929	6	27	39.02925	-114.37605	NAD27	7150

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
267	MVZ	41709	Willard Creek, Spring Valley	N	1929	6	28	39.02925	-114.37605	NAD27	7150
268	MVZ	41710	Willard Creek, Spring Valley	N	1929	6	30	39.02925	-114.37605	NAD27	7150
269	MVZ	46072	Willard Creek, Snake Mts.	N	1930	8	30	39.02985	-114.37440	NAD27	7200
270	MVZ	46073	Willard Creek, Snake Mts.	N	1930	8	30	39.02985	-114.37440	NAD27	7200
271	MVZ	41711	Willard Creek, Spring Valley	N	1929	7	2	39.03285	-114.36850	NAD27	7400
272	MVZ	41712	Willard Creek, Spring Valley	N	1929	7	2	39.03285	-114.36850	NAD27	7400
273	MVZ	41702	Pole Canyon, Snake Mts.	Y	1929	6	15	38.98890	-114.21500	NAD27	7500
274	MVZ	41703	Pole Canyon, Snake Mts.	Y	1929	6	16	38.98890	-114.21500	NAD27	7500
275	MVZ	41704	Pole Canyon, Snake Mts.	Y	1929	6	16	38.98890	-114.21500	NAD27	7500
276	MVZ	41707	Baker Creek	Y	1929	6	24	38.97325	-114.25470	NAD27	8400
277	MVZ	41705	Lehman Creek	Y	1929	5	26	39.01365	-114.26835	NAD27	8400
278	MVZ	129387	Snake Creek, Snake Ridge	Y	1962	6	8	38.94167	-114.02278	NAD27	8400
279	MVZ	41706	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
280	MVZ	46070	head Shingle Creek, Snake Mts.	Y	1930	8	29	38.98056	-114.43940	NAD27	10000
281	MVZ	46071	head Shingle Creek, Snake Mts.	Y	1930	8	29	38.98056	-114.43940	NAD27	10000
282	MVZ	84092	Stella Lake, Snake Mts.	Y	1938	8	8	39.00500	-114.31667	NAD27	10500
283	MVZ	41862	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
284	MVZ	41863	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
285	MVZ	41864	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
286	MVZ	41865	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
287	MVZ	41866	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
288	UMNH	25668	Sacramento Pass	N	1966	11	2	39.14361	-114.33583	NAD27	6700
289	MVZ	41868	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
290	MVZ	41869	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
291	MVZ	41870	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
292	MVZ	41871	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
293	MVZ	41872	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
294	MVZ	41867	Lehman Cave	Y	1929	6	7	39.00556	-114.21944	NAD27	7400
295	MVZ	41873	Willard Creek, Spring Valley	N	1929	7	3	39.03160	-114.36200	NAD27	7700
296	UMNH	26327	Sacramento Pass	N	1966	11	2	39.14361	-114.33583	NAD27	6700
297	UMNH	26330	Sacramento Pass	N	1966	11	2	39.14361	-114.33583	NAD27	6700
298	MVZ	41929	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
299	MVZ	41930	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
300	MVZ	41885	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
301	MVZ	41916	Baker Creek	Y	1929	6	5	38.98805	-114.23820	NAD27	7500
302	MVZ	41884	Baker Creek	Y	1929	6	3	38.98425	-114.24145	NAD27	7700
303	MVZ	41912	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
304	MVZ	41913	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
305	MVZ	41914	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
306	MVZ	41918	2 mi SE Lehman Cave	Y	1929	6	6	38.98506	-114.19317	NAD27	6700
307	MVZ	41919	2 mi SE Lehman Cave	Y	1929	6	6	38.98506	-114.19317	NAD27	6700
308	MVZ	41920	2 mi SE Lehman Cave	Y	1929	6	6	38.98506	-114.19317	NAD27	6700
309	MVZ	41921	2 mi SE Lehman Cave	Y	1929	6	6	38.98506	-114.19317	NAD27	6700
310	UWBM	66756	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
311	UWBM	66758	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
312	UWBM	66757	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
313	UWBM	66705	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
314	UWBM	66704	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
315	UWBM	66911	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
316	UWBM	66912	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
317	UWBM	66913	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
318	UWBM	66762	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
319	UWBM	66760	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
320	UWBM	66761	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
321	UWBM	71130	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
322	UWBM	71129	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
323	MVZ	41924	Baker Creek	Y	1929	6	9	38.99075	-114.22700	NAD27	7200
324	MVZ	41925	Baker Creek	Y	1929	6	9	38.99075	-114.22700	NAD27	7200
325	MVZ	41926	Baker Creek	Y	1929	6	9	38.99075	-114.22700	NAD27	7200
326	MVZ	41927	Baker Creek	Y	1929	6	9	38.99075	-114.22700	NAD27	7200
327	MVZ	41928	Baker Creek	Y	1929	6	9	38.99075	-114.22700	NAD27	7200
328	MVZ	41931	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
329	MVZ	41932	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
330	MVZ	41933	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
331	MVZ	41922	Lehman Cave	Y	1929	6	8	39.00556	-114.21944	NAD27	7200
332	MVZ	41923	Lehman Cave	Y	1929	6	8	39.00556	-114.21944	NAD27	7200
333	MVZ	41936	Pole Canyon, Snake Mts.	Y	1929	6	15	38.98890	-114.21500	NAD27	7250
334	MVZ	41910	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
335	MVZ	41911	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
336	MVZ	41915	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
337	MVZ	41917	Baker Creek	Y	1929	6	5	38.98805	-114.23820	NAD27	7500
338	MVZ	41934	Pole Canyon, Snake Mts.	Y	1929	6	15	38.98890	-114.21500	NAD27	7500
339	MVZ	41935	Pole Canyon, Snake Mts.	Y	1929	6	15	38.98890	-114.21500	NAD27	7500
340	MVZ	41908	Baker Creek	Y	1929	6	3	38.98425	-114.24145	NAD27	7700
341	MVZ	41909	Baker Creek	Y	1929	6	3	38.98425	-114.24145	NAD27	7700
342	MVZ	41970	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
343	MVZ	41971	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
344	MVZ	41972	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
345	MVZ	41958	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
346	MVZ	41959	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
347	MVZ	41960	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
348	MVZ	41961	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
349	MVZ	183955	Lehman Creek	Y	1929	5	24	39.01220	-114.26445	NAD27	8200
350	MVZ	41973	Willard Creek, Spring Valley	Y	1929	7	3	39.03560	-114.34915	NAD27	8200
351	MVZ	41886	Lehman Cave	Y	1929	5	24	39.00556	-114.21944	NAD27	8300
352	MVZ	41887	Lehman Cave	Y	1929	5	24	39.00556	-114.21944	NAD27	8300
353	MVZ	41937	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
354	MVZ	41938	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
355	MVZ	41939	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
356	MVZ	41940	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
357	MVZ	41941	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
358	MVZ	41942	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
359	MVZ	41943	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
360	MVZ	41944	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
361	MVZ	41945	Baker Creek	Y	1929	6	18	38.97230	-114.26060	NAD27	8675
362	MVZ	41946	Baker Creek	Y	1929	6	20	38.97230	-114.26060	NAD27	8675
363	MVZ	41947	Baker Creek	Y	1929	6	20	38.97230	-114.26060	NAD27	8675
364	MVZ	41948	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
365	MVZ	41949	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
366	MVZ	41950	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
367	MVZ	41951	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
368	MVZ	41952	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
369	MVZ	41953	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
370	MVZ	41954	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
371	MVZ	41955	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
372	MVZ	41956	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
373	MVZ	41957	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
374	UMNH	26199	Head of Lehman Creek	Y	1969	9	27	39.01125	-114.29520	NAD27	9560
375	MVZ	41977	0.5 mi E Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.30738	NAD27	10400
376	MVZ	41978	0.5 mi E Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.30738	NAD27	10400
377	MVZ	41980	0.5 mi W Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.32596	NAD27	10500
378	MVZ	41981	0.5 mi W Stella Lake, Snake Mts.	Y	1929	7	8	39.00500	-114.32596	NAD27	10500
379	MVZ	84093	Stella Lake, Snake Mts.	Y	1938	8	10	39.00500	-114.31667	NAD27	10500
380	MVZ	41979	0.5 mi E Stella Lake, Snake Mts.	Y	1929	7	7	39.00500	-114.30738	NAD27	10750

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
381	MVZ	41974	Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.31667	NAD27	10750
382	MVZ	41975	Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.31667	NAD27	10750
383	MVZ	41976	Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.31667	NAD27	10750
384	MVZ	88107	Baker Creek	Y	1939	8	13	38.97485	-114.31475	NAD27	11100
385	MVZ	88108	Baker Creek	Y	1939	8	13	38.97485	-114.31475	NAD27	11100
386	MVZ	41982	1 mi N Stella Lake	Y	1929	7	9	39.01950	-114.31667	NAD27	11500
387	UMNH	25485	Sacramento Pass	N	1966	11	2	39.14361	-114.33583	NAD27	6700
388	UWBM	67388	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
389	UWBM	41999	Lehman Caves;	Y	1941	5	30	39.00540	-114.21893	NAD27	6850
390	MVZ	41877	Lehman Cave	Y	1929	6	7	39.00556	-114.21944	NAD27	7400
391	MVZ	41878	0.5 mi W Lehman Cave	Y	1929	6	8	39.00556	-114.22873	NAD27	7500
392	MVZ	41879	0.5 mi W Lehman Cave	Y	1929	6	8	39.00556	-114.22873	NAD27	7500
393	UMNH	28230	1 mi N Baker	N	1985	7	4	39.02700	-114.12222	NAD27	5220
394	MSB	66106	1.8 mi. N, 0.6 mi. W Baker	N	1987	8	15	39.03765	-114.13650	NAD27	5340
395	MSB	66102	1.8 mi. N, 0.6 mi. W Baker	N	1987	8	14	39.03765	-114.13650	NAD27	5340
396	MSB	66103	1.8 mi. N, 0.6 mi. W Baker	N	1987	8	15	39.03765	-114.13650	NAD27	5340
397	MSB	66104	1.8 mi. N, 0.6 mi. W Baker	N	1987	8	15	39.03765	-114.13650	NAD27	5340
398	MSB	66105	1.8 mi. N, 0.6 mi. W Baker	N	1987	8	15	39.03765	-114.13650	NAD27	5340
399	MVZ	41851	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
400	MVZ	41852	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
401	MVZ	41853	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
402	MVZ	41854	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
403	MVZ	41855	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
404	MVZ	41856	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
405	MVZ	41857	7 mi SW Osceola, Spring Valley	N	1929	6	28	39.01881	-114.47679	NAD27	6275
406	MVZ	42014	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
407	MVZ	42015	Baker Creek	Y	1929	6	11	38.99075	-114.22700	NAD27	7200
408	MVZ	41985	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
409	MVZ	41986	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
410	MVZ	42016	Baker Creek	Y	1929	6	11	38.98965	-114.22965	NAD27	7300
411	MVZ	42017	Baker Creek	Y	1929	6	11	38.98965	-114.22965	NAD27	7300
412	MVZ	183911	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
413	MVZ	41989	Pole Canyon, Snake Mts.	Y	1929	6	14	38.98890	-114.21500	NAD27	7300
414	MVZ	41990	Pole Canyon, Snake Mts.	Y	1929	6	14	38.98890	-114.21500	NAD27	7300
415	MVZ	42006	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
416	MVZ	42007	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
417	MVZ	42008	Baker Creek	Y	1929	6	3	38.98805	-114.23820	NAD27	7500
418	MVZ	42009	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
419	MVZ	42010	Baker Creek	Y	1929	6	4	38.98805	-114.23820	NAD27	7500
420	MVZ	41983	mouth Pole Canyon, S side Baker Creek	Y	1929	6	12	38.98890	-114.21500	NAD27	7500
421	MVZ	41984	mouth Pole Canyon, S side Baker Creek	Y	1929	6	12	38.98890	-114.21500	NAD27	7500
422	MVZ	41987	mouth Pole Canyon, S side Baker Creek	Y	1929	6	14	38.98890	-114.21500	NAD27	7500
423	MVZ	41988	mouth Pole Canyon, S side Baker Creek	Y	1929	6	14	38.98890	-114.21500	NAD27	7500
424	MVZ	41991	Pole Canyon, Snake Mts.	Y	1929	6	16	38.98890	-114.21500	NAD27	7500
425	MVZ	41992	Pole Canyon, Snake Mts.	Y	1929	6	16	38.98890	-114.21500	NAD27	7500
426	MVZ	42004	Willard Creek, Spring Valley	N	1929	7	2	39.03160	-114.36200	NAD27	7700
427	MVZ	42018	Baker Creek	Y	1929	6	25	38.97595	-114.24515	NAD27	8000
428	MVZ	41993	Baker Creek	Y	1929	6	20	38.97230	-114.26060	NAD27	8675
429	MVZ	41994	Baker Creek	Y	1929	6	20	38.97230	-114.26060	NAD27	8675
430	MVZ	41995	Baker Creek	Y	1929	6	21	38.97230	-114.26060	NAD27	8675
431	MVZ	41996	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
432	MVZ	41997	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
433	MVZ	41998	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
434	MVZ	41999	Baker Creek	Y	1929	6	23	38.97230	-114.26060	NAD27	8675
435	MVZ	42000	Baker Creek	Y	1929	6	23	38.97230	-114.26060	NAD27	8675
436	MVZ	42001	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
437	MVZ	42002	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
438	MVZ	42003	Baker Creek	Y	1929	6	26	38.97230	-114.26060	NAD27	8675
439	MVZ	42005	0.75 mi SE Stella Lake	Y	1929	6	9	38.99731	-114.30682	NAD27	10800
440	MVZ	42021	1 mi N Baker	N	1929	5	31	39.02783	-114.12194	NAD27	5800
441	MVZ	42023	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
442	MVZ	42025	Baker Creek	Y	1929	6	7	38.99295	-114.20095	NAD27	6600
443	MVZ	42043	Baker Creek	Y	1929	6	15	38.99090	-114.20440	NAD27	6700
444	UMNH	27294	Sacramento Pass, Snake Range	N	1966	11	2	39.14361	-114.33583	NAD27	6700
445	MVZ	42044	Willard Creek, Spring Valley	N	1929	7	1	39.02925	-114.37605	NAD27	7150
446	MVZ	42045	Willard Creek, Spring Valley	N	1929	7	1	39.02925	-114.37605	NAD27	7150
447	MVZ	42034	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
448	MVZ	42042	Baker Creek	Y	1929	6	13	38.99075	-114.22700	NAD27	7200
449	MVZ	42026	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
450	MVZ	42027	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
451	MVZ	42028	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
452	MVZ	42029	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
453	MVZ	42030	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
454	MVZ	42031	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
455	MVZ	42032	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300
456	MVZ	42033	Baker Creek	Y	1929	6	10	38.98965	-114.22965	NAD27	7300

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
457	MVZ	42035	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
458	MVZ	42036	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
459	MVZ	42037	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
460	MVZ	42038	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
461	MVZ	42039	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
462	MVZ	42040	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
463	MVZ	42041	Baker Creek	Y	1929	6	12	38.98965	-114.22965	NAD27	7300
464	MVZ	42024	Baker Creek	Y	1929	6	5	38.98805	-114.23820	NAD27	7500
465	MVZ	42046	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
466	MVZ	42022	2 mi W Baker	N	1929	5	31	39.01333	-114.15910	NAD27	
467	MVZ	175303	2 mi S Baker	N	1983	9	1	38.98434	-114.12194	NAD27	5500
468	MVZ	175304	2 mi S Baker	N	1983	9	1	38.98434	-114.12194	NAD27	5500
469	MVZ	42069	Baker Creek	Y	1929	6	10	38.99075	-114.22700	NAD27	7200
470	MVZ	42070	Baker Creek	Y	1929	6	12	38.99075	-114.22700	NAD27	7200
471	MVZ	46312	Baker Creek	Y	1930	7	28	38.97595	-114.24515	NAD27	8000
472	MVZ	46314	Baker Creek	Y	1930	7	28	38.97595	-114.24515	NAD27	8000
473	MVZ	46315	Baker Creek	Y	1930	7	28	38.97595	-114.24515	NAD27	8000
474	MVZ	46389	Baker Creek	Y	1930	7	28	38.97595	-114.24515	NAD27	8000
475	MVZ	42065	Willard Creek, Spring Valley	Y	1929	7	3	39.03560	-114.34915	NAD27	8200
476	MVZ	42066	Willard Creek, Spring Valley	Y	1929	7	3	39.03560	-114.34915	NAD27	8200
477	MVZ	42062	Baker Creek	Y	1929	6	22	38.97230	-114.26060	NAD27	8675
478	MVZ	42063	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
479	MVZ	42064	Baker Creek	Y	1929	6	24	38.97230	-114.26060	NAD27	8675
480	UMNH	26756	Head of Lehman Creek	Y	1969	9	27	39.01125	-114.29520	NAD27	9560
481	UMNH	26509	Head of Lehman Creek	Y	1969	9	27	39.01125	-114.29520	NAD27	9560
482	MVZ	84094	Stella Lake, Snake Mts.	Y	1938	8	10	39.00500	-114.31667	NAD27	10500
483	MVZ	42067	Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.31667	NAD27	10750
484	MVZ	42068	Stella Lake, Snake Mts.	Y	1929	7	6	39.00500	-114.31667	NAD27	10750
485	MVZ	88122	Baker Creek	Y	1939	8	13	38.97485	-114.31475	NAD27	11100
486	MVZ	88123	Baker Creek	Y	1939	8	13	38.97485	-114.31475	NAD27	11100
487	MVZ	88124	Baker Creek	Y	1939	8	14	38.97485	-114.31475	NAD27	11100
488	MVZ	88125	Baker Creek	Y	1939	8	15	38.97485	-114.31475	NAD27	11100
489	MVZ	42048	1 mi N Baker	N	1929	6	1	39.02783	-114.12194	NAD27	5800
490	MVZ	42049	1 mi N Baker	N	1929	6	2	39.02783	-114.12194	NAD27	5800
491	MVZ	42050	1 mi N Baker	N	1929	6	2	39.02783	-114.12194	NAD27	5800
492	MVZ	42051	Baker	N	1929	6	2	39.01333	-115.33111	NAD27	5300
493	MVZ	42052	Baker	N	1929	6	4	39.01333	-115.33111	NAD27	5300
494	MVZ	42060	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100

Appendix 1 (extended).

	Museum acronym	Catnum	Specific locality	Within Park?	Year	Month	Day	Declat	Declong	Datum	Elev. (ft)
495	MVZ	42061	7 mi SW Osceola, Spring Valley	N	1929	6	30	39.01881	-114.47679	NAD27	6100
496	MVZ	42053	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
497	MVZ	42054	Baker Creek	Y	1929	6	5	38.99295	-114.20095	NAD27	6600
498	MVZ	42055	Baker Creek	Y	1929	6	6	38.99295	-114.20095	NAD27	6600
499	MVZ	42056	Baker Creek	Y	1929	6	7	38.99090	-114.20440	NAD27	6700
500	MVZ	42057	Baker Creek	Y	1929	6	7	38.99090	-114.20440	NAD27	6700
501	MVZ	42058	Baker Creek	Y	1929	6	8	38.99090	-114.20440	NAD27	6700
502	MVZ	42059	Baker Creek	Y	1929	6	13	38.99090	-114.20440	NAD27	6700
503	MVZ	183845	Baker Creek	Y	1929	6	13	38.99090	-114.20440	NAD27	6700
504	MVZ	46313	Baker Creek	Y	1930	7	28	38.97595	-114.24515	NAD27	8000
505	UMNH	26636	E side Wheeler Peak	Y	1969	9	27	39.01125	-114.29520	NAD27	9560
506	UMNH	27177	E side Wheeler Peak	Y	1969	9	27	39.01125	-114.29520	NAD27	9560
507	MVZ	41874	Baker	N	1929	6	3	39.01333	-115.33111	NAD27	5300
508	MVZ	41875	Baker	N	1929	6	3	39.01333	-115.33111	NAD27	5300
509	MVZ	41876	Baker	N	1929	6	3	39.01333	-115.33111	NAD27	5300
510	MVZ	42073	Baker Creek	Y	1929	6	13	38.98965	-114.22965	NAD27	7300
511	MVZ	42072	Baker Creek	Y	1929	6	3	38.98805	-114.23820	NAD27	7500
512	MVZ	42080	Lehman Creek	Y	1929	7	8	39.01270	-114.25920	NAD27	8000
513	MVZ	42071	Lehman Creek	Y	1929	5	24	39.01285	-114.26650	NAD27	8300
514	MVZ	129388	Snake Creek, Snake Range	Y	1962	6	5	38.94167	-114.02278	NAD27	8400
515	MVZ	42074	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
516	MVZ	42075	Baker Creek	Y	1929	6	16	38.97230	-114.26060	NAD27	8675
517	MVZ	42076	Treasury Lake [=Treasure Lake]	Y	1939	6	19	38.95806	-114.30472	NAD27	10500
518	MVZ	42077	Treasury Lake [=Treasure Lake]	Y	1939	6	21	38.95806	-114.30472	NAD27	10500
519	MVZ	42078	Treasury Lake [=Treasure Lake]	Y	1939	6	20	38.95806	-114.30472	NAD27	10500
520	MVZ	88130	Treasury Lake [=Treasure Lake]	Y	1939	8	14	38.95806	-114.30472	NAD27	10500
521	MVZ	42079	Stella Lake, Snake Mts.	Y	1929	7	5	39.00500	-114.31667	NAD27	10600
522	MVZ	42085	Lehman Creek	Y	1929	5	24	39.01715	-114.27505	NAD27	8800
523	MVZ	42086	Baker Creek	Y	1929	6	15	38.97275	-114.27075	NAD27	9000
524	MVZ	42090	Baker Creek	Y	1929	1	1	38.97275	-114.27075	NAD27	9000
525	MVZ	88137	0.25 mi SW Stella Lake	Y	1939	8	17	39.00244	-114.31995	NAD27	11800
526	MVZ	88136	head of Baker Creek	Y	1939	8	14	38.96000	-114.30000	NAD27	12400

Appendix 2. Selected mammal survey localities in Great Basin National Park.

57



Fig. 2.1 Snake Creek Canyon (38.91935°N, 114.14137°W, 6300 ft). Site 0005. Sagebrush shrubland and adjacent piñon-juniper. June 2002.

Species recorded at or near this site:
Canis latrans, *Lepus californicus*, *Perognathus parvus*, *Peromyscus maniculatus*



Fig. 2.2 North fork Big Wash (38.88915°N, 114.18980°W, 6840 ft). Site 0026. Sagebrush dominated perennial stream bed. June 2003.

Species recorded at or near this site:
Tamias dorsalis, *Peromyscus crinitus*, *Peromyscus maniculatus*

Appendix 2. (continued)

58



Fig. 2.3 North fork Big Wash (38.8890°N, 114.18860°W, 6980 ft). Site 0025. Rocky slope with adjacent piñon-juniper, riparian shrubs & cottonwood. June 2003.

Species recorded at or near this site:
Tamias dorsalis, *Peromyscus crinitus*, *Peromyscus maniculatus*,
Neotoma lepida



Fig. 2.4 Snake Creek Canyon (38.91970°N, 114.17811°W, 7450 ft). Site 1002. Rocky outcrop, piñon-juniper woodland. June 2002.

Species recorded at or near this site:
Tamias dorsalis, *Spermophilus variegatus*, *Peromyscus crinitus*,
Peromyscus maniculatus, *Peromyscus truei*

Appendix 2. (continued)

59



Fig. 2.5 South fork Big Wash (38.88253°N, 114.19378°W, 7010 ft). Site 0023. Mixed sagebrush, piñon-juniper, aspen, and white fir. June 2003.

Species recorded at or near this site:
Perognathus parvus, *Peromyscus maniculatus*, *Peromyscus truei*,
Microtus longicaudus



Fig. 2.6 Strawberry Creek Canyon (39.05761°N, 114.28178°W, 7500 ft). Site 1004. Mixed sagebrush, piñon-juniper. August 2002.

Species recorded at or near this site:
Puma concolor (sign), *Tamias umbrinus*, *Peromyscus maniculatus*,
Peromyscus truei

Appendix 2. (continued)

60



Fig. 2.7 Lehman Creek near Park boundary (39.00990°N, 114.20757°W, 6575 ft). Site 0015. Riparian community, sedge, grass, willow, adjacent sagebrush, piñon-juniper. October 2002.

Species recorded at or near this site:
Sorex vagrans, *Perognathus parvus*, *Reithrodontomys megalotis*,
Peromyscus maniculatus, *Microtus longicaudus*, *Antilocapra americana*



Fig. 2.8 Vicinity of Shoshone Campground, Snake Creek Canyon (38.93185°N, 114.25048°W, 8500 ft). Sites 0016-0019, 1003. Adjacent communities of grass-sedge, willow meadow, sagebrush, aspen, and white fir. June 2002.

Species recorded at or near this site:
Sorex vagrans, *Tamias minimus*, *Tamias umbrinus*, *Thomomys bottae*, *Peromyscus maniculatus*, *Microtus montanus*, *Microtus longicaudus*, *Odocoileus hemionus*

Appendix 2. (continued)



Fig. 2.9 South fork Lehman Creek (39.00885°N, 114.30415°W, 9900 ft). Streamside habitat in Englemann spruce forest. October 2002.

Species recorded at or near this site:
Sorex palustris, *Sorex tenellus*, *Sorex vagrans*, *Mephitis mephitis*,
Tamias umbrinus, *Spermophilus lateralis*, *Peromyscus maniculatus*,
Microtus longicaudus



Fig. 2.10 Vicinity of Brown Lake (39.00400°N, 114.30060°W, 10200 ft). Old terminal moraine near small pond in mixed Englemann spruce bristlecone pine. October 2002.

Species recorded at this site:
Tamias umbrinus, *Spermophilus lateralis*, *Peromyscus maniculatus*,
Odocoileus hemionus

Appendix 2. (continued)

62



Fig. 2.11 Cirque NW of Pyramid Peak (38.95348°N, 114.30087°W, 10660 ft). Site 0020. Alpine community on rocky slope near treeline, with scattered Englemann spruce and limber pine krumholtz. June 2003.

Species recorded at or near this site:
Lepus californicus, *Tamias umbrinus*, *Peromyscus maniculatus*,
Peromyscus truei, *Microtus longicaudus*.



Fig. 2.12 Ridge top north of Lincoln Peak (38.88859°N, 114.29816°W, 11200 ft). Site 0028. Alpine community along rocky ridge top with nearby Englemann spruce and limber pine communities. August 2003.

Species recorded at or near this site:
Mustela erminea, *Spermophilus lateralis*, *Tamias umbrinus*,
Peromyscus maniculatus, *Peromyscus truei*, *Ovis canadensis*

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
1	FMNH	168437	Sorex	palustris	Water shrew	0.3km E Wheeler Peak Campground, Lehman Creek	Y
2	UMNH	30288	Sorex	tenellus	Inyo shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
3	FMNH	168550	Sorex	vagrans	Vagrant shrew	0.3km E Wheeler Peak Campground, Lehman Creek	Y
4	FMNH	168551	Sorex	vagrans	Vagrant shrew	0.3km E Wheeler Peak Campground, Lehman Creek	Y
5	FMNH	168427	Sorex	vagrans	Vagrant shrew	0.3km E Wheeler Peak Campground, Lehman Creek	Y
6	UMNH	30286	Sorex	vagrans	Vagrant shrew	0.3km N, 0.3km E Stella Lake	Y
7	UMNH	30287	Sorex	vagrans	Vagrant shrew	0.3km N, 0.3km E Stella Lake	Y
8	UMNH	29696	Sorex	vagrans	Vagrant shrew	0.3km N, 0.4km E Wheeler Peak Campground	Y
9	UMNH	29686	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
10	UMNH	29800	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
11	UMNH	30282	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
12	UMNH	29693	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
13	UMNH	30283	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
14	UMNH	30284	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
15	UMNH	29700	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
16	UMNH	29701	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
17	FMNH	168428	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
18	FMNH	168429	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
19	FMNH	168430	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
20	FMNH	168431	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
21	FMNH	168432	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
22	FMNH	168433	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
23	FMNH	168434	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
24	FMNH	168435	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
25	FMNH	168436	Sorex	vagrans	Vagrant shrew	0.3km S, 0.2km W Wheeler Peak Campground	Y
26	UMNH	29795	Sorex	vagrans	Vagrant shrew	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
27	UMNH	29796	Sorex	vagrans	Vagrant shrew	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
28	UMNH	29797	Sorex	vagrans	Vagrant shrew	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
29	UMNH	29798	Sorex	vagrans	Vagrant shrew	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
30	UMNH	29665	Sorex	vagrans	Vagrant shrew	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
31	UMNH	29799	Sorex	vagrans	Vagrant shrew	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
32	UMNH	30508	Sorex	vagrans	Vagrant shrew	Lehman Creek	Y
33	UMNH	30519	Sorex	vagrans	Vagrant shrew	Snake Creek Canyon, near Shoshone Campground	Y
34	UMNH	30516	Sorex	vagrans	Vagrant shrew	Snake Creek Canyon, near Shoshone Campground	Y
35	UMNH	30517	Sorex	vagrans	Vagrant shrew	Snake Creek Canyon, near Shoshone Campground	Y
36	UMNH	30518	Sorex	vagrans	Vagrant shrew	Snake Creek Canyon, near Shoshone Campground	Y
37	UMNH	30520	Sorex	vagrans	Vagrant shrew	Snake Creek Canyon, near Shoshone Campground	Y
38	UMNH	30513	Sorex	vagrans	Vagrant shrew	Snake Creek canyon, tributary from Dead Lake	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
39	UMNH	30514	Sorex	vagrans	Vagrant shrew	Snake Creek canyon, tributary from Dead Lake	Y
40	UMNH	30515	Sorex	vagrans	Vagrant shrew	Snake Creek canyon, tributary from Dead Lake	Y
41	UMNH	30511	Sorex	vagrans	Vagrant shrew	Snake Creek canyon, tributary from Dead Lake	Y
42	UMNH	30512	Sorex	vagrans	Vagrant shrew	Snake Creek canyon, tributary from Dead Lake	Y
43	UMNH	30509	Sorex	vagrans	Vagrant shrew	Snake Creek canyon, tributary from Dead Lake	Y
44	UMNH	30510	Sorex	vagrans	Vagrant shrew	Snake Creek canyon, tributary from Dead Lake	Y
45	UMNH	30285	Sorex	vagrans	Vagrant shrew	spring, 0.1km N Stella Lake	Y
46	UMNH	30507	Sorex	vagrans	Vagrant shrew	Strawberry Canyon meadow	Y
47	UMNH	31221	Sorex	vagrans	Vagrant shrew	Strawberry Creek	Y
48	UMNH	31223	Urocyon	cinereoargenteus	Gray fox	trail to Bald Mtn., ca. 0.4 mi. N Stella Lake(opportunistic)	Y
49	UMNH	30650	Sylvilagus	nuttallii	Mountain cottontail	0.5 mi W Baker (opportunistic)	N
50	FMNH	168438	Sylvilagus	nuttallii	Mountain cottontail	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
51	UMNH	30824	Tamias	dorsalis	Cliff chipmunk	Lehman Creek (REPTINV-PIT-0003) (opportunistic)	Y
52	UMNH	30730	Tamias	dorsalis	Cliff chipmunk	North Fork Big Wash (rocky riparian)	Y
53	UMNH	30674	Tamias	dorsalis	Cliff chipmunk	North Fork Big Wash (rocky slope)	Y
54	UMNH	30530	Tamias	dorsalis	Cliff chipmunk	Snake Creek Canyon, site 3	Y
55	UMNH	30529	Tamias	dorsalis	Cliff chipmunk	Snake Creek Canyon, site 46	Y
56	FMNH	168461	Tamias	minimus	Least chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
57	UMNH	30528	Tamias	minimus	Least chipmunk	Snake Creek Canyon, near Shoshone Campground	Y
58	UMNH	30526	Tamias	minimus	Least chipmunk	Snake Creek Canyon, near Shoshone Campground	Y
59	UMNH	30527	Tamias	minimus	Least chipmunk	Snake Creek Canyon, near Shoshone Campground	Y
60	FMNH	168440	Tamias	umbrinus	Uinta chipmunk	0.3km E Wheeler Peak Campground, Lehman Creek	Y
61	FMNH	168552	Tamias	umbrinus	Uinta chipmunk	0.3km E Wheeler Peak Campground, Lehman Creek	Y
62	FMNH	168452	Tamias	umbrinus	Uinta chipmunk	0.3km E Wheeler Peak Campground, Lehman Creek	Y
63	FMNH	168453	Tamias	umbrinus	Uinta chipmunk	0.3km E Wheeler Peak Campground, Lehman Creek	Y
64	UMNH	29698	Tamias	umbrinus	Uinta chipmunk	0.3km N, 0.4km E Wheeler Peak Campground	Y
65	UMNH	29699	Tamias	umbrinus	Uinta chipmunk	0.3km N, 0.4km E Wheeler Peak Campground	Y
66	UMNH	29709	Tamias	umbrinus	Uinta chipmunk	0.3km S, 0.3km W Stella Lake	Y
67	FMNH	168454	Tamias	umbrinus	Uinta chipmunk	0.3km S, 0.3km W Stella Lake	Y
68	FMNH	168455	Tamias	umbrinus	Uinta chipmunk	0.3km S, 0.3km W Stella Lake	Y
69	UMNH	30657	Tamias	umbrinus	Uinta chipmunk	0.5 km W, 0.6 km N summit Pyramid Peak	Y
70	UMNH	30749	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
71	UMNH	30708	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
72	UMNH	30709	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
73	UMNH	30710	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
74	UMNH	30719	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
75	UMNH	30720	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
76	UMNH	30721	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
77	UMNH	30750	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
78	UMNH	30712	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
79	UMNH	30692	Tamias	umbrinus	Uinta chipmunk	1.5 km S, 0.8 km E summit Mount Washington	Y
80	UMNH	29778	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
81	UMNH	29779	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
82	UMNH	29780	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
83	UMNH	29781	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
84	UMNH	29713	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
85	UMNH	29714	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
86	FMNH	168456	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
87	FMNH	168457	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
88	FMNH	168458	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
89	FMNH	168462	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
90	FMNH	168459	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
91	FMNH	168460	Tamias	umbrinus	Uinta chipmunk	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
92	UMNH	29774	Tamias	umbrinus	Uinta chipmunk	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
93	UMNH	29672	Tamias	umbrinus	Uinta chipmunk	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
94	UMNH	29673	Tamias	umbrinus	Uinta chipmunk	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
95	FMNH	168439	Tamias	umbrinus	Uinta chipmunk	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
96	FMNH	168553	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
97	FMNH	168554	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
98	FMNH	168441	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
99	FMNH	168442	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
100	FMNH	168555	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
101	FMNH	168556	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
102	FMNH	168557	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
103	FMNH	168558	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
104	FMNH	168559	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
105	FMNH	168443	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
106	FMNH	168444	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
107	FMNH	168445	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
108	FMNH	168446	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
109	FMNH	168447	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
110	FMNH	168448	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
111	FMNH	168449	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
112	FMNH	168450	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
113	FMNH	168451	Tamias	umbrinus	Uinta chipmunk	Brown Lake	Y
114	UMNH	29776	Tamias	umbrinus	Uinta chipmunk	Lehman Creek	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
115	UMNH	29777	Tamias	umbrinus	Uinta chipmunk	Lehman Creek	Y
116	UMNH	29702	Tamias	umbrinus	Uinta chipmunk	Lehman Creek	Y
117	UMNH	29703	Tamias	umbrinus	Uinta chipmunk	Lehman Creek	Y
118	UMNH	30712	Tamias	umbrinus	Uinta chipmunk	Ridge near Washington Peak	Y
119	UMNH	30521	Tamias	umbrinus	Uinta chipmunk	Snake Creek Canyon, MD-2 grid	Y
120	UMNH	30522	Tamias	umbrinus	Uinta chipmunk	Snake Creek Canyon, MD-2 grid	Y
121	UMNH	30523	Tamias	umbrinus	Uinta chipmunk	Snake Creek Canyon, MD-2 grid	Y
122	UMNH	30524	Tamias	umbrinus	Uinta chipmunk	Strawberry Creek Canyon, MD-1 grid	Y
123	UMNH	30525	Tamias	umbrinus	Uinta chipmunk	Strawberry Creek Canyon, MD-2 grid	Y
124	FMNH	168463	Ammospermophilus	leucurus	Antelope ground squirrel	1.6km N, 3km E Lehman Caves Visitors Center	N
125	FMNH	168464	Ammospermophilus	leucurus	Antelope ground squirrel	2.7km N, 0.9km W Baker (Baker Flats)	N
126	UMNH	29684	Ammospermophilus	leucurus	Antelope ground squirrel	2.7km N, 0.9km W Baker (Baker Flats)	N
127	UMNH	29793	Spermophilus	lateralis	Golden-mantled ground squirrel	0.3km N, 0.3km E Stella Lake	Y
128	UMNH	29708	Spermophilus	lateralis	Golden-mantled ground squirrel	0.3km S, 0.3km W Stella Lake	Y
129	UMNH	29792	Spermophilus	lateralis	Golden-mantled ground squirrel	0.3km S, 0.3km W Stella Lake	Y
130	FMNH	168560	Spermophilus	variegatus	Rock squirrel	Baker Creek (Grey Cliffs)	Y
131	UMNH	31224	Marmota	flaviventris	Yellow-bellied marmot	Baker Creek road at 7000 ft. elevation(opportunistic)	Y
132	FMNH	168465	Perognathus	longimembrus	Little pocket mouse	2.7km N, 0.9km W Baker (Baker Flats)	N
133	FMNH	168561	Perognathus	parvus	Great Basin pocket mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
134	UMNH	29674	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
135	UMNH	29783	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
136	UMNH	29784	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
137	UMNH	29675	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
138	UMNH	29785	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
139	UMNH	29676	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
140	FMNH	168466	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
141	FMNH	168467	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
142	FMNH	168468	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
143	FMNH	168594	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
144	FMNH	168595	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
145	UMNH	29786	Perognathus	parvus	Great Basin pocket mouse	1.6km N, 3km E Lehman Caves Visitors Center	N
146	FMNH	168469	Perognathus	parvus	Great Basin pocket mouse	2.7km N, 0.9km W Baker (Baker Flats)	N
147	UMNH	31222	Perognathus	parvus	Great Basin pocket mouse	near Baker Creek (REPTINV-PIT-0006)(opportunistic)	Y
148	UMNH	30456	Perognathus	parvus	Great Basin pocket mouse	Snake Creek Canyon, site 46	Y
149	UMNH	30457	Perognathus	parvus	Great Basin pocket mouse	Snake Creek Canyon, site 49	Y
150	UMNH	30728	Perognathus	parvus	Great Basin pocket mouse	South Fork Big Wash (lower site)	Y
151	UMNH	30458	Perognathus	parvus	Great Basin pocket mouse	Strawberry Canyon meadow	Y
152	FMNH	168596	Dipodomys	microps	Chisel-toothed kangaroo rat	1.6km N, 3km E Lehman Caves Visitors Center	N

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
153	UMNH	29787	Dipodomys	microps	Chisel-toothed kangaroo rat	1.6km N, 3km E Lehman Caves Visitors Center	N
154	UMNH	29681	Dipodomys	microps	Chisel-toothed kangaroo rat	1.6km N, 3km E Lehman Caves Visitors Center	N
155	FMNH	168562	Dipodomys	microps	Chisel-toothed kangaroo rat	1.6km N, 3km E Lehman Caves Visitors Center	N
156	FMNH	168597	Dipodomys	microps	Chisel-toothed kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
157	UMNH	29788	Dipodomys	microps	Chisel-toothed kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
158	FMNH	168470	Dipodomys	microps	Chisel-toothed kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
159	UMNH	29683	Dipodomys	microps	Chisel-toothed kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
160	FMNH	168471	Dipodomys	microps	Chisel-toothed kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
161	UMNH	29789	Dipodomys	microps	Chisel-toothed kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
162	FMNH	168472	Dipodomys	microps	Chisel-toothed kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
163	UMNH	30449	Dipodomys	microps	Chisel-toothed kangaroo rat	GRBA Administrative site	Y
164	UMNH	29790	Dipodomys	ordii	Ord's kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
165	UMNH	29682	Dipodomys	ordii	Ord's kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
166	FMNH	168598	Dipodomys	ordii	Ord's kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
167	FMNH	168473	Dipodomys	ordii	Ord's kangaroo rat	2.7km N, 0.9km W Baker (Baker Flats)	N
168	UMNH	30531	Thomomys	bottae	Valley pocket gopher	Snake Creek Canyon, near Shoshone Campground	Y
169	UMNH	30532	Thomomys	bottae	Valley pocket gopher	Snake Creek Canyon, near Shoshone Campground	Y
170	UMNH	30533	Thomomys	bottae	Valley pocket gopher	Snake Creek Canyon, near Shoshone Campground	Y
171	FMNH	168587	Reithrodontomys	megalotis	Western harvest mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
172	FMNH	168588	Reithrodontomys	megalotis	Western harvest mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
173	FMNH	168543	Reithrodontomys	megalotis	Western harvest mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
174	UMNH	29764	Reithrodontomys	megalotis	Western harvest mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
175	FMNH	168544	Reithrodontomys	megalotis	Western harvest mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
176	FMNH	168589	Reithrodontomys	megalotis	Western harvest mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
177	FMNH	168590	Reithrodontomys	megalotis	Western harvest mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
178	UMNH	29677	Reithrodontomys	megalotis	Western harvest mouse	1.6km N, 3km E Lehman Caves Visitors Center	Y
179	UMNH	29678	Reithrodontomys	megalotis	Western harvest mouse	1.6km N, 3km E Lehman Caves Visitors Center	Y
180	UMNH	29761	Reithrodontomys	megalotis	Western harvest mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
181	UMNH	29762	Reithrodontomys	megalotis	Western harvest mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
182	UMNH	29763	Reithrodontomys	megalotis	Western harvest mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
183	UMNH	30809	Reithrodontomys	megalotis	Western harvest mouse	GRBA Administrative site (REPTINV-PIT-0001)(opportunistic)	Y
184	UMNH	30506	Reithrodontomys	megalotis	Western harvest mouse	Strawberry Canyon meadow	Y
185	UMNH	30505	Reithrodontomys	megalotis	Western harvest mouse	Strawberry Canyon meadow	Y
186	UMNH	30731	Peromyscus	crinitus	Canyon mouse	North Fork Big Wash (rocky riparian)	Y
187	UMNH	30675	Peromyscus	crinitus	Canyon mouse	North Fork Big Wash (rocky slope)	Y
188	UMNH	30504	Peromyscus	crinitus	Canyon mouse	Snake Creek Canyon, site 3	Y
189	UMNH	30503	Peromyscus	crinitus	Canyon mouse	Snake Creek Canyon, site 3	Y
190	FMNH	168568	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
191	FMNH	168569	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
192	FMNH	168493	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
193	FMNH	168494	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
194	FMNH	168495	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
195	FMNH	168496	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
196	FMNH	168497	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
197	FMNH	168570	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
198	FMNH	168571	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
199	FMNH	168498	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
200	FMNH	168499	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
201	FMNH	168500	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
202	FMNH	168501	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
203	FMNH	168502	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
204	FMNH	168503	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
205	FMNH	168504	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
206	FMNH	168572	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
207	FMNH	168573	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
208	FMNH	168574	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
209	FMNH	168505	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
210	FMNH	168506	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
211	FMNH	168507	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
212	FMNH	168522	Peromyscus	maniculatus	Deer mouse	0.3km E Wheeler Peak Campground, Lehman Creek	Y
213	UMNH	29746	Peromyscus	maniculatus	Deer mouse	0.3km N, 0.3km E Stella Lake	Y
214	UMNH	29747	Peromyscus	maniculatus	Deer mouse	0.3km N, 0.3km E Stella Lake	Y
215	UMNH	29697	Peromyscus	maniculatus	Deer mouse	0.3km N, 0.4km E Wheeler Peak Campground	Y
216	UMNH	29741	Peromyscus	maniculatus	Deer mouse	0.3km N, 0.4km E Wheeler Peak Campground	Y
217	UMNH	29742	Peromyscus	maniculatus	Deer mouse	0.3km N, 0.4km E Wheeler Peak Campground	Y
218	UMNH	29734	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
219	UMNH	29735	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
220	UMNH	29688	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
221	UMNH	29770	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
222	UMNH	29689	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
223	UMNH	29736	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
224	UMNH	29690	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
225	UMNH	29691	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
226	UMNH	29737	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
227	UMNH	29738	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
228	UMNH	29739	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
229	UMNH	29692	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
230	UMNH	29740	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
231	UMNH	29695	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.2km W Wheeler Peak Campground	Y
232	UMNH	29743	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
233	UMNH	29744	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
234	UMNH	29711	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
235	UMNH	29712	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
236	UMNH	29745	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
237	FMNH	168523	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
238	FMNH	168524	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
239	FMNH	168525	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
240	FMNH	168526	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
241	FMNH	168527	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
242	FMNH	168528	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
243	FMNH	168529	Peromyscus	maniculatus	Deer mouse	0.3km S, 0.3km W Stella Lake	Y
244	UMNH	30653	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
245	UMNH	30654	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
246	UMNH	30655	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
247	UMNH	30656	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
248	UMNH	30660	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
249	UMNH	30661	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
250	UMNH	30662	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
251	UMNH	30663	Peromyscus	maniculatus	Deer mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y
252	FMNH	168566	Peromyscus	maniculatus	Deer mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
253	FMNH	168567	Peromyscus	maniculatus	Deer mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
254	FMNH	168489	Peromyscus	maniculatus	Deer mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
255	FMNH	168490	Peromyscus	maniculatus	Deer mouse	0.5km N, 1km E Lehman Caves Visitor Center	Y
256	UMNH	30682	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
257	UMNH	30683	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
258	UMNH	30684	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
259	UMNH	30685	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
260	UMNH	30686	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
261	UMNH	30687	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
262	UMNH	30688	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
263	UMNH	30689	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
264	UMNH	30690	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
265	UMNH	30734	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
266	UMNH	30735	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
267	UMNH	30736	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
268	UMNH	30737	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
269	UMNH	30717	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
270	UMNH	30718	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
271	UMNH	30714	Peromyscus	maniculatus	Deer mouse	1.5 km S, 0.8 km E summit Mount Washington	Y
272	UMNH	29679	Peromyscus	maniculatus	Deer mouse	1.6km N, 3km E Lehman Caves Visitors Center	Y
273	UMNH	29680	Peromyscus	maniculatus	Deer mouse	1.6km N, 3km E Lehman Caves Visitors Center	Y
274	UMNH	29732	Peromyscus	maniculatus	Deer mouse	1.6km N, 3km E Lehman Caves Visitors Center	Y
275	FMNH	168491	Peromyscus	maniculatus	Deer mouse	1.6km N, 3km E Lehman Caves Visitors Center	Y
276	UMNH	29733	Peromyscus	maniculatus	Deer mouse	1.6km N, 3km E Lehman Caves Visitors Center	Y
277	UMNH	29721	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
278	UMNH	29722	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
279	UMNH	29723	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
280	UMNH	29724	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
281	UMNH	29725	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
282	UMNH	29726	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
283	UMNH	29671	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
284	UMNH	29731	Peromyscus	maniculatus	Deer mouse	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
285	UMNH	29715	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
286	UMNH	29716	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
287	UMNH	29717	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
288	UMNH	29748	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
289	UMNH	29782	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
290	UMNH	29749	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
291	UMNH	29718	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
292	UMNH	29719	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
293	UMNH	29750	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
294	UMNH	29751	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
295	UMNH	29752	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
296	UMNH	29753	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
297	UMNH	29755	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
298	UMNH	29754	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
299	UMNH	29756	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
300	UMNH	29757	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
301	UMNH	29758	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
302	UMNH	29759	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
303	UMNH	29760	Peromyscus	maniculatus	Deer mouse	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
304	UMNH	29666	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
305	UMNH	29667	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
306	UMNH	29727	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
307	UMNH	29728	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
308	UMNH	29669	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
309	UMNH	29670	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
310	UMNH	29729	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
311	UMNH	29730	Peromyscus	maniculatus	Deer mouse	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
312	FMNH	168492	Peromyscus	maniculatus	Deer mouse	2.7km N, 0.9km W Baker (Baker Flats)	N
313	FMNH	168530	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
314	FMNH	168531	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
315	FMNH	168532	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
316	FMNH	168533	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
317	FMNH	168534	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
318	FMNH	168535	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
319	FMNH	168536	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
320	FMNH	168537	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
321	FMNH	168538	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
322	FMNH	168539	Peromyscus	maniculatus	Deer mouse	2.8km N, 3.8km W Lehman Caves Visitor Center	Y
323	FMNH	168475	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
324	FMNH	168476	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
325	FMNH	168488	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
326	FMNH	168477	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
327	FMNH	168478	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
328	FMNH	168479	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
329	FMNH	168480	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
330	FMNH	168481	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
331	FMNH	168482	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
332	FMNH	168563	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
333	FMNH	168483	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
334	FMNH	168484	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
335	FMNH	168564	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
336	FMNH	168565	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
337	FMNH	168485	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
338	FMNH	168486	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
339	FMNH	168487	Peromyscus	maniculatus	Deer mouse	Baker Creek (Grey Cliffs)	Y
340	FMNH	168508	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
341	FMNH	168509	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
342	FMNH	168510	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
343	FMNH	168511	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
344	FMNH	168512	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
345	FMNH	168513	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
346	FMNH	168514	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
347	FMNH	168515	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
348	FMNH	168516	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
349	FMNH	168517	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
350	FMNH	168518	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
351	FMNH	168519	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
352	FMNH	168520	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
353	FMNH	168521	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
354	FMNH	168575	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
355	FMNH	168576	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
356	FMNH	168577	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
357	FMNH	168578	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
358	FMNH	168579	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
359	FMNH	168580	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
360	FMNH	168581	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
361	FMNH	168582	Peromyscus	maniculatus	Deer mouse	Brown Lake	Y
362	UMNH	30810	Peromyscus	maniculatus	Deer mouse	GRBA Administrative site (REPTINV-PIT-0001)(opportunistic)	Y
363	UMNH	30811	Peromyscus	maniculatus	Deer mouse	GRBA Administrative site (REPTINV-PIT-0001)(opportunistic)	Y
364	UMNH	29704	Peromyscus	maniculatus	Deer mouse	Lehman Creek	Y
365	UMNH	30812	Peromyscus	maniculatus	Deer mouse	Lehman Creek (REPTINV-PIT-0003)(opportunistic)	Y
366	UMNH	30825	Peromyscus	maniculatus	Deer mouse	Lehman Creek (REPTINV-PIT-0003)(opportunistic)	Y
367	UMNH	30821	Peromyscus	maniculatus	Deer mouse	Lehman Creek (REPTINV-PIT-0003)(opportunistic)	Y
368	UMNH	30822	Peromyscus	maniculatus	Deer mouse	Lehman Creek (REPTINV-PIT-0003)(opportunistic)	Y
369	UMNH	30823	Peromyscus	maniculatus	Deer mouse	Lehman Creek (REPTINV-PIT-0003)(opportunistic)	Y
370	UMNH	30820	Peromyscus	maniculatus	Deer mouse	Lehman Creek (REPTINV-PIT-0004)(opportunistic)	Y
371	UMNH	30818	Peromyscus	maniculatus	Deer mouse	near Baker Creek (REPTINV-PIT-0006)(opportunistic)	Y
372	UMNH	30741	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
373	UMNH	30742	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
374	UMNH	30743	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
375	UMNH	30744	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
376	UMNH	30693	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
377	UMNH	30694	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
378	UMNH	30695	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
379	UMNH	30696	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
380	UMNH	30697	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
381	UMNH	30698	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
382	UMNH	30699	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
383	UMNH	30700	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
384	UMNH	30701	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
385	UMNH	30702	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
386	UMNH	30745	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
387	UMNH	30746	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
388	UMNH	30747	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
389	UMNH	30748	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
390	UMNH	30703	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
391	UMNH	30704	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
392	UMNH	30705	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
393	UMNH	30706	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
394	UMNH	30707	Peromyscus	maniculatus	Deer mouse	Ridge near Mount Washington	Y
395	UMNH	30711	Peromyscus	maniculatus	Deer mouse	Ridge near Washington Peak	Y
396	UMNH	30738	Peromyscus	maniculatus	Deer mouse	ridgetop, 0.4 km N, 0.1 km W summit Lincoln Peak	Y
397	UMNH	30739	Peromyscus	maniculatus	Deer mouse	ridgetop, 0.4 km N, 0.1 km W summit Lincoln Peak	Y
398	UMNH	30691	Peromyscus	maniculatus	Deer mouse	ridgetop, 0.4 km N, 0.1 km W summit Lincoln Peak	Y
399	UMNH	30487	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, MD-2 grid	Y
400	UMNH	30488	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, MD-2 grid	Y
401	UMNH	30473	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, lower campsite	Y
402	UMNH	30474	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, lower campsite	Y
403	UMNH	30472	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, lower campsite	Y
404	UMNH	30471	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, lower campsite	Y
405	UMNH	30480	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
406	UMNH	30481	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
407	UMNH	30482	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
408	UMNH	30483	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
409	UMNH	30484	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
410	UMNH	30485	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
411	UMNH	30486	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
412	UMNH	30479	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, near Shoshone Campground	Y
413	UMNH	30465	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, site 31	Y
414	UMNH	30468	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, site 50	Y
415	UMNH	30469	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, site 50	Y
416	UMNH	30466	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, site 50	Y
417	UMNH	30467	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, site 50	Y
418	UMNH	30470	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, site 50, gully	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
419	UMNH	30475	Peromyscus	maniculatus	Deer mouse	Snake Creek Canyon, Snake Creek	Y
420	UMNH	30672	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (lower site)	Y
421	UMNH	30677	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (lower site)	Y
422	UMNH	30678	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (lower site)	Y
423	UMNH	30723	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
424	UMNH	30724	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
425	UMNH	30725	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
426	UMNH	30665	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
427	UMNH	30666	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
428	UMNH	30667	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
429	UMNH	30668	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
430	UMNH	30679	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
431	UMNH	30680	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
432	UMNH	30681	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
433	UMNH	30733	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash (upper site)	Y
434	UMNH	30664	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash, 0.3 km S Castle Butte	Y
435	UMNH	30676	Peromyscus	maniculatus	Deer mouse	South Fork Big Wash, 0.3 km S Castle Butte	Y
436	UMNH	30715	Peromyscus	maniculatus	Deer mouse	spring west of Lincoln Peak	Y
437	UMNH	30716	Peromyscus	maniculatus	Deer mouse	spring west of Lincoln Peak	Y
438	UMNH	29705	Peromyscus	maniculatus	Deer mouse	spring, 0.1km N Stella Lake	Y
439	UMNH	30477	Peromyscus	maniculatus	Deer mouse	Strawberry Canyon meadow	Y
440	UMNH	30478	Peromyscus	maniculatus	Deer mouse	Strawberry Canyon meadow	Y
441	UMNH	30476	Peromyscus	maniculatus	Deer mouse	Strawberry Canyon meadow	Y
442	UMNH	30491	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, LO-MD grid	Y
443	UMNH	30490	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, LO-MD grid	Y
444	UMNH	30489	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, LO-MD grid	Y
445	UMNH	30496	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-1 grid	Y
446	UMNH	30497	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-1 grid	Y
447	UMNH	30495	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-1 grid	Y
448	UMNH	30492	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-1 grid	Y
449	UMNH	30493	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-1 grid	Y
450	UMNH	30494	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-1 grid	Y
451	UMNH	30501	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-2 grid	Y
452	UMNH	30502	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-2 grid	Y
453	UMNH	30499	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-2 grid	Y
454	UMNH	30500	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-2 grid	Y
455	UMNH	30498	Peromyscus	maniculatus	Deer mouse	Strawberry Creek Canyon, MD-2 grid	Y
456	UMNH	30651	Peromyscus	truei	Piñon mouse	0.5 km W, 0.6 km N summit Pyramid Peak	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
457	FMNH	168583	Peromyscus	truei	Piñon mouse	Baker Creek (Grey Cliffs)	Y
458	FMNH	168584	Peromyscus	truei	Piñon mouse	Baker Creek (Grey Cliffs)	Y
459	FMNH	168540	Peromyscus	truei	Piñon mouse	Baker Creek (Grey Cliffs)	Y
460	FMNH	168541	Peromyscus	truei	Piñon mouse	Baker Creek (Grey Cliffs)	Y
461	FMNH	168542	Peromyscus	truei	Piñon mouse	Baker Creek (Grey Cliffs)	Y
462	FMNH	168585	Peromyscus	truei	Piñon mouse	Baker Creek (Grey Cliffs)	Y
463	FMNH	168586	Peromyscus	truei	Piñon mouse	Baker Creek (Grey Cliffs)	Y
464	UMNH	30808	Peromyscus	truei	Piñon mouse	GRBA Administrative site (REPTINV-PIT-0001)(opportunistic)	Y
465	UMNH	30813	Peromyscus	truei	Piñon mouse	GRBA Administrative site (REPTINV-PIT-0002)(opportunistic)	Y
466	UMNH	30817	Peromyscus	truei	Piñon mouse	near Baker Creek (REPTINV-PIT-0006)(opportunistic)	Y
467	UMNH	30740	Peromyscus	truei	Piñon mouse	Ridge near Mount Washington	Y
468	UMNH	30463	Peromyscus	truei	Piñon mouse	Snake Creek Canyon, site 3	Y
469	UMNH	30459	Peromyscus	truei	Piñon mouse	Snake Creek Canyon, site 44	Y
470	UMNH	30462	Peromyscus	truei	Piñon mouse	Snake Creek Canyon, site 46	Y
471	UMNH	30460	Peromyscus	truei	Piñon mouse	Snake Creek Canyon, site 50	Y
472	UMNH	30461	Peromyscus	truei	Piñon mouse	Snake Creek Canyon, site 50	Y
473	UMNH	30727	Peromyscus	truei	Piñon mouse	South Fork Big Wash (lower site)	Y
474	UMNH	30669	Peromyscus	truei	Piñon mouse	South Fork Big Wash (lower site)	Y
475	UMNH	30670	Peromyscus	truei	Piñon mouse	South Fork Big Wash (lower site)	Y
476	UMNH	30729	Peromyscus	truei	Piñon mouse	South Fork Big Wash (lower site)	Y
477	UMNH	30671	Peromyscus	truei	Piñon mouse	South Fork Big Wash (lower site)	Y
478	UMNH	30732	Peromyscus	truei	Piñon mouse	South Fork Big Wash (lower site)	Y
479	UMNH	30722	Peromyscus	truei	Piñon mouse	South Fork Big Wash (upper site)	Y
480	UMNH	30464	Peromyscus	truei	Piñon mouse	Strawberry Creek Canyon, LO-MD grid	Y
481	UMNH	30814	Onychomys	leucogaster	Northern grasshopper mouse	GRBA Administrative site (REPTINV-PIT-0002)(opportunistic)	Y
482	UMNH	30815	Onychomys	leucogaster	Northern grasshopper mouse	GRBA Administrative site (REPTINV-PIT-0002)(opportunistic)	Y
483	UMNH	29794	Neotoma	cinerea	Bushy-tailed woodrat	1.9km N, 4km W Lehman Caves (Mather Overlook)	Y
484	UMNH	29685	Neotoma	lepida	Desert woodrat	1.6km N, 3km E Lehman Caves Visitors Center	N
485	FMNH	168474	Neotoma	lepida	Desert woodrat	1.6km N, 3km E Lehman Caves Visitors Center	N
486	UMNH	30673	Neotoma	lepida	Desert woodrat	North Fork Big Wash	Y
487	FMNH	168593	Microtus	longicaudus	Long-tailed vole	0.3km E Wheeler Peak Campground, Lehman Creek	Y
488	FMNH	168547	Microtus	longicaudus	Long-tailed vole	0.3km E Wheeler Peak Campground, Lehman Creek	Y
489	FMNH	168548	Microtus	longicaudus	Long-tailed vole	0.3km E Wheeler Peak Campground, Lehman Creek	Y
490	FMNH	168549	Microtus	longicaudus	Long-tailed vole	0.3km E Wheeler Peak Campground, Lehman Creek	Y
491	UMNH	29694	Microtus	longicaudus	Long-tailed vole	0.3km S, 0.2km W Wheeler Peak Campground	Y
492	UMNH	29687	Microtus	longicaudus	Long-tailed vole	0.3km S, 0.2km W Wheeler Peak Campground	Y
493	UMNH	29710	Microtus	longicaudus	Long-tailed vole	0.3km S, 0.3km W Stella Lake	Y
494	UMNH	30652	Microtus	longicaudus	Long-tailed vole	0.5 km W, 0.6 km N summit Pyramid Peak	Y

Appendix 3. Specimen records of mammals from recent surveys (2000-2004) in the Great Basin National Park region.

	Museum acronym	Catnum	Genus	Species	Common name	Locality description	Within Park?
495	UMNH	30658	Microtus	longicaudus	Long-tailed vole	0.5 km W, 0.6 km N summit Pyramid Peak	Y
496	UMNH	30659	Microtus	longicaudus	Long-tailed vole	0.5 km W, 0.6 km N summit Pyramid Peak	Y
497	FMNH	168545	Microtus	longicaudus	Long-tailed vole	0.5km N, 1km E Lehman Caves Visitor Center	Y
498	FMNH	168546	Microtus	longicaudus	Long-tailed vole	0.5km N, 1km E Lehman Caves Visitor Center	Y
499	FMNH	168591	Microtus	longicaudus	Long-tailed vole	0.5km N, 1km E Lehman Caves Visitor Center	Y
500	FMNH	168592	Microtus	longicaudus	Long-tailed vole	0.5km N, 1km E Lehman Caves Visitor Center	Y
501	UMNH	29767	Microtus	longicaudus	Long-tailed vole	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
502	UMNH	29768	Microtus	longicaudus	Long-tailed vole	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
503	UMNH	29668	Microtus	longicaudus	Long-tailed vole	2.1km S, 1.5km W Lehman Caves Visitor Center	Y
504	UMNH	30816	Microtus	longicaudus	Long-tailed vole	near Baker Creek (REPTINV-PIT-0006)(opportunistic)	Y
505	UMNH	30726	Microtus	longicaudus	Long-tailed vole	South Fork Big Wash (lower site)	Y
506	UMNH	29706	Microtus	longicaudus	Long-tailed vole	spring, 0.1km N Stella Lake	Y
507	UMNH	29769	Microtus	longicaudus	Long-tailed vole	spring, 0.1km N Stella Lake	Y
508	UMNH	29707	Microtus	longicaudus	Long-tailed vole	spring, 0.1km N Stella Lake	Y
509	UMNH	29771	Microtus	longicaudus	Long-tailed vole	spring, 0.1km N Stella Lake	Y
510	UMNH	29772	Microtus	longicaudus	Long-tailed vole	spring, 0.1km N Stella Lake	Y
511	UMNH	29773	Microtus	longicaudus	Long-tailed vole	spring, 0.1km N Stella Lake	Y
512	UMNH	30455	Microtus	longicaudus	Long-tailed vole	Strawberry Canyon meadow	Y
513	UMNH	29766	Microtus	montanus	Montane vole	0.3km N, 0.3km E Stella Lake	Y
514	UMNH	29765	Microtus	montanus	Montane vole	1.7km S, 1.1km W Lehman Caves Visitor Center	Y
515	UMNH	30819	Microtus	montanus	Montane vole	Lehman Creek (REPTINV-PIT-0004)(opportunistic)	Y
516	UMNH	30453	Microtus	montanus	Montane vole	Snake Creek Canyon, near Shoshone Campground	Y
517	UMNH	30454	Microtus	montanus	Montane vole	Snake Creek Canyon, near Shoshone Campground	Y
518	UMNH	30452	Microtus	montanus	Montane vole	Snake Creek Canyon, near Shoshone Campground	Y
519	UMNH	30450	Microtus	montanus	Montane vole	Strawberry Canyon meadow	Y
520	UMNH	30451	Microtus	montanus	Montane vole	Strawberry Canyon meadow	Y

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
1	FMNH	168437	2000	7	19	39.01085	-114.29865	NAD 1927	9750
2	UMNH	30288	2000	7	24	39.00885	-114.30415	NAD 1928	9900
3	FMNH	168550	2000	7	19	39.01085	-114.29865	NAD 1927	9750
4	FMNH	168551	2000	7	20	39.01085	-114.29865	NAD 1927	9750
5	FMNH	168427	2000	7	20	39.01085	-114.29865	NAD 1927	9750
6	UMNH	30286	2000	7	24	39.00890	-114.31330	NAD 1927	10200
7	UMNH	30287	2000	7	24	39.00890	-114.31330	NAD 1927	10200
8	UMNH	29696	2000	7	20	39.01375	-114.29670	NAD 1927	9650
9	UMNH	29686	2000	7	19	39.00885	-114.30415	NAD 1904	9900
10	UMNH	29800	2000	7	19	39.00885	-114.30415	NAD 1905	9900
11	UMNH	30282	2000	7	19	39.00885	-114.30415	NAD 1918	9900
12	UMNH	29693	2000	7	20	39.00885	-114.30415	NAD 1920	9900
13	UMNH	30283	2000	7	20	39.00885	-114.30415	NAD 1921	9900
14	UMNH	30284	2000	7	20	39.00885	-114.30415	NAD 1922	9900
15	UMNH	29700	2000	7	21	39.00885	-114.30415	NAD 1926	9900
16	UMNH	29701	2000	7	21	39.00885	-114.30415	NAD 1927	9900
17	FMNH	168428	2000	7	22	39.00885	-114.30415	NAD 1895	9900
18	FMNH	168429	2000	7	23	39.00885	-114.30415	NAD 1896	9900
19	FMNH	168430	2000	7	23	39.00885	-114.30415	NAD 1897	9900
20	FMNH	168431	2000	7	23	39.00885	-114.30415	NAD 1898	9900
21	FMNH	168432	2000	7	23	39.00885	-114.30415	NAD 1899	9900
22	FMNH	168433	2000	7	25	39.00885	-114.30415	NAD 1900	9900
23	FMNH	168434	2000	7	25	39.00885	-114.30415	NAD 1901	9900
24	FMNH	168435	2000	7	25	39.00885	-114.30415	NAD 1902	9900
25	FMNH	168436	2000	7	25	39.00885	-114.30415	NAD 1903	9900
26	UMNH	29795	2000	7	12	38.99110	-114.23330	NAD 1927	7450
27	UMNH	29796	2000	7	12	38.99110	-114.23330	NAD 1927	7450
28	UMNH	29797	2000	7	12	38.99110	-114.23330	NAD 1927	7450
29	UMNH	29798	2000	7	13	38.99110	-114.23330	NAD 1927	7450
30	UMNH	29665	2000	7	13	38.99110	-114.23330	NAD 1927	7450
31	UMNH	29799	2000	7	15	38.98920	-114.23760	NAD 1927	7550
32	UMNH	30508	2002	10	12	39.00990	-114.20757	NAD 1927	6575
33	UMNH	30519	2002	8	1	38.92991	-114.25253	NAD 1927	8350
34	UMNH	30516	2002	8	2	38.92991	-114.25253	NAD 1927	8350
35	UMNH	30517	2002	8	2	38.92991	-114.25253	NAD 1927	8350
36	UMNH	30518	2002	8	2	38.92991	-114.25253	NAD 1927	8350
37	UMNH	30520	2002	7	31	38.93130	-114.25855	NAD 1927	8450
38	UMNH	30513	2002	7	30	38.93185	-114.25048	NAD 1927	8525

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
39	UMNH	30514	2002	7	30	38.93185	-114.25048	NAD 1927	8525
40	UMNH	30515	2002	7	30	38.93185	-114.25048	NAD 1927	8525
41	UMNH	30511	2002	7	31	38.93185	-114.25048	NAD 1927	8525
42	UMNH	30512	2002	7	31	38.93185	-114.25048	NAD 1927	8525
43	UMNH	30509	2002	8	2	38.93185	-114.25048	NAD 1927	8525
44	UMNH	30510	2002	8	2	38.93185	-114.25048	NAD 1927	8525
45	UMNH	30285	2000	7	23	39.00680	-114.31660	NAD 1927	10350
46	UMNH	30507	2002	8	5	39.05611	-114.30572	NAD 1927	7950
47	UMNH	31221	2001	5	23	39.09215	-114.31915	NAD 1927	6950
48	UMNH	31223	2001	8	18	39.01360	-114.31450	NAD 1927	10533
49	UMNH	30650	2002	5	28	39.01225	-114.13175	NAD 1927	5430
50	FMNH	168438	2000	7	25	39.03180	-114.26515	NAD 1927	8500
51	UMNH	30824	2003	4	28	39.01000	-114.21000	NAD 1927	6600
52	UMNH	30730	2003	6	12	38.88915	-114.18980	NAD 1927	6838
53	UMNH	30674	2003	6	12	38.88960	-114.18860	NAD 1927	6979
54	UMNH	30530	2002	6	4	38.91970	-114.17811	NAD 1927	7451
55	UMNH	30529	2002	6	5	38.92606	-114.19603	NAD 1927	7697
56	FMNH	168461	2000	7	25	39.02260	-114.26585	NAD 1927	9200
57	UMNH	30528	2002	7	31	38.92836	-114.25395	NAD 1927	8365
58	UMNH	30526	2002	8	1	38.92836	-114.25395	NAD 1927	8365
59	UMNH	30527	2002	8	1	38.92836	-114.25395	NAD 1927	8365
60	FMNH	168440	2000	7	19	39.01085	-114.29865	NAD 1927	9750
61	FMNH	168552	2000	7	19	39.01085	-114.29865	NAD 1927	9750
62	FMNH	168452	2000	7	22	39.01085	-114.29865	NAD 1928	9750
63	FMNH	168453	2000	7	22	39.01085	-114.29865	NAD 1929	9750
64	UMNH	29698	2000	7	21	39.01375	-114.29670	NAD 1927	9650
65	UMNH	29699	2000	7	21	39.01375	-114.29670	NAD 1927	9650
66	UMNH	29709	2000	7	23	39.00210	-114.32235	NAD 1927	11000
67	FMNH	168454	2000	7	23	39.00210	-114.32235	NAD 1925	11000
68	FMNH	168455	2000	7	23	39.00210	-114.32235	NAD 1926	11000
69	UMNH	30657	2003	6	8	38.95348	-114.30087	NAD 1927	10660
70	UMNH	30749	2003	8	14	38.90070	-114.29815	NAD 1927	10605
71	UMNH	30708	2003	8	14	38.90070	-114.29815	NAD 1927	10605
72	UMNH	30709	2003	8	14	38.90070	-114.29815	NAD 1927	10605
73	UMNH	30710	2003	8	14	38.90070	-114.29815	NAD 1927	10605
74	UMNH	30719	2003	8	15	38.90070	-114.29815	NAD 1927	10605
75	UMNH	30720	2003	8	15	38.90070	-114.29815	NAD 1927	10605
76	UMNH	30721	2003	8	15	38.90070	-114.29815	NAD 1927	10605

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
77	UMNH	30750	2003	8	13	38.90070	-114.29815	NAD 1927	10650
78	UMNH	30712	2003	8	13	38.90070	-114.29815	NAD 1927	10650
79	UMNH	30692	2003	8	13	38.90070	-114.29815	NAD 1927	10650
80	UMNH	29778	2000	7	24	39.02260	-114.26585	NAD 1927	9200
81	UMNH	29779	2000	7	24	39.02260	-114.26585	NAD 1927	9200
82	UMNH	29780	2000	7	24	39.02260	-114.26585	NAD 1927	9200
83	UMNH	29781	2000	7	24	39.02260	-114.26585	NAD 1927	9200
84	UMNH	29713	2000	7	24	39.02260	-114.26585	NAD 1927	9200
85	UMNH	29714	2000	7	24	39.02260	-114.26585	NAD 1927	9200
86	FMNH	168456	2000	7	25	39.02260	-114.26585	NAD 1927	9200
87	FMNH	168457	2000	7	25	39.02260	-114.26585	NAD 1927	9200
88	FMNH	168458	2000	7	25	39.02260	-114.26585	NAD 1927	9200
89	FMNH	168462	2000	7	25	39.02260	-114.26585	NAD 1927	9200
90	FMNH	168459	2000	7	25	39.02260	-114.26585	NAD 1927	9200
91	FMNH	168460	2000	7	25	39.02260	-114.26585	NAD 1927	9200
92	UMNH	29774	2000	7	14	38.98920	-114.23760	NAD 1927	7550
93	UMNH	29672	2000	7	15	38.98920	-114.23760	NAD 1927	7550
94	UMNH	29673	2000	7	15	38.98920	-114.23760	NAD 1927	7550
95	FMNH	168439	2000	7	16	38.98920	-114.23760	NAD 1927	7550
96	FMNH	168553	2000	7	21	39.00400	-114.30060	NAD 1927	10200
97	FMNH	168554	2000	7	21	39.00400	-114.30060	NAD 1927	10200
98	FMNH	168441	2000	7	21	39.00400	-114.30060	NAD 1927	10200
99	FMNH	168442	2000	7	21	39.00400	-114.30060	NAD 1927	10200
100	FMNH	168555	2000	7	21	39.00400	-114.30060	NAD 1927	10200
101	FMNH	168556	2000	7	21	39.00400	-114.30060	NAD 1927	10200
102	FMNH	168557	2000	7	21	39.00400	-114.30060	NAD 1927	10200
103	FMNH	168558	2000	7	21	39.00400	-114.30060	NAD 1927	10200
104	FMNH	168559	2000	7	21	39.00400	-114.30060	NAD 1927	10200
105	FMNH	168443	2000	7	21	39.00400	-114.30060	NAD 1927	10200
106	FMNH	168444	2000	7	21	39.00400	-114.30060	NAD 1927	10200
107	FMNH	168445	2000	7	21	39.00400	-114.30060	NAD 1927	10200
108	FMNH	168446	2000	7	21	39.00400	-114.30060	NAD 1927	10200
109	FMNH	168447	2000	7	21	39.00400	-114.30060	NAD 1927	10200
110	FMNH	168448	2000	7	21	39.00400	-114.30060	NAD 1927	10200
111	FMNH	168449	2000	7	21	39.00400	-114.30060	NAD 1927	10200
112	FMNH	168450	2000	7	21	39.00400	-114.30060	NAD 1927	10200
113	FMNH	168451	2000	7	21	39.00400	-114.30060	NAD 1927	10200
114	UMNH	29776	2000	7	21	39.01050	-114.29805	NAD 1927	9750

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
115	UMNH	29777	2000	7	21	39.01050	-114.29805	NAD 1927	9750
116	UMNH	29702	2000	7	21	39.01050	-114.29805	NAD 1927	9750
117	UMNH	29703	2000	7	21	39.01050	-114.29805	NAD 1927	9750
118	UMNH	30712	2003	8	14	38.90474	-114.30159	NAD 1927	10817
119	UMNH	30521	2002	8	1	38.92830	-114.25469	NAD 1927	8350
120	UMNH	30522	2002	8	1	38.92830	-114.25469	NAD 1927	8350
121	UMNH	30523	2002	8	1	38.92830	-114.25469	NAD 1927	8350
122	UMNH	30524	2002	8	3	39.05606	-114.28014	NAD 1927	7775
123	UMNH	30525	2002	8	3	39.05405	-114.30292	NAD 1927	7920
124	FMNH	168463	2000	7	17	39.02035	-114.18405	NAD 1927	6150
125	FMNH	168464	2000	7	17	39.03690	-114.13210	NAD 1927	5275
126	UMNH	29684	2000	7	17	39.03690	-114.13210	NAD 1927	5275
127	UMNH	29793	2000	7	24	39.00890	-114.31330	NAD 1927	10200
128	UMNH	29708	2000	7	22	39.00210	-114.32235	NAD 1927	11000
129	UMNH	29792	2000	7	22	39.00210	-114.32235	NAD 1927	11000
130	FMNH	168560	2000	7	14	38.99145	-114.21865	NAD 1927	7080
131	UMNH	31224	2004	7		38.99580	-114.20875	NAD 1927	7000
132	FMNH	168465	2000	7	18	39.03690	-114.13210	NAD 1927	5275
133	FMNH	168561	2000	7	15	39.00890	-114.20785	NAD 1927	6580
134	UMNH	29674	2000	7	16	39.02035	-114.18405	NAD 1929	6150
135	UMNH	29783	2000	7	16	39.02035	-114.18405	NAD 1930	6150
136	UMNH	29784	2000	7	16	39.02035	-114.18405	NAD 1931	6150
137	UMNH	29675	2000	7	16	39.02035	-114.18405	NAD 1932	6150
138	UMNH	29785	2000	7	16	39.02035	-114.18405	NAD 1933	6150
139	UMNH	29676	2000	7	16	39.02035	-114.18405	NAD 1934	6150
140	FMNH	168466	2000	7	17	39.02035	-114.18405	NAD 1927	6150
141	FMNH	168467	2000	7	17	39.02035	-114.18405	NAD 1927	6150
142	FMNH	168468	2000	7	17	39.02035	-114.18405	NAD 1927	6150
143	FMNH	168594	2000	7	18	39.02035	-114.18405	NAD 1945	6150
144	FMNH	168595	2000	7	18	39.02035	-114.18405	NAD 1946	6150
145	UMNH	29786	2000	7	18	39.02035	-114.18405	NAD 1947	6150
146	FMNH	168469	2000	7	18	39.03690	-114.13210	NAD 1927	5275
147	UMNH	31222	2003	7	15	38.99580	-114.20875	NAD 1927	7000
148	UMNH	30456	2002	6	6	38.92606	-114.19603	NAD 1927	7697
149	UMNH	30457	2002	6	8	38.91935	-114.14137	NAD 1927	6305
150	UMNH	30728	2003	6	11	38.88253	-114.19378	NAD 1927	7010
151	UMNH	30458	2002	8	4	39.05611	-114.30572	NAD 1927	7950
152	FMNH	168596	2000	7	16	39.02035	-114.18405	NAD 1935	6150

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
153	UMNH	29787	2000	7	16	39.02035	-114.18405	NAD 1941	6150
154	UMNH	29681	2000	7	16	39.02035	-114.18405	NAD 1942	6150
155	FMNH	168562	2000	7	17	39.02035	-114.18405	NAD 1927	6150
156	FMNH	168597	2000	7	17	39.03690	-114.13210	NAD 1927	5275
157	UMNH	29788	2000	7	17	39.03690	-114.13210	NAD 1927	5275
158	FMNH	168470	2000	7	17	39.03690	-114.13210	NAD 1927	5275
159	UMNH	29683	2000	7	17	39.03690	-114.13210	NAD 1927	5275
160	FMNH	168471	2000	7	17	39.03690	-114.13210	NAD 1927	5275
161	UMNH	29789	2000	7	17	39.03690	-114.13210	NAD 1927	5275
162	FMNH	168472	2000	7	18	39.03690	-114.13210	NAD 1927	5275
163	UMNH	30449	2002	9	11	39.01298	-114.12376	NAD 1927	5344
164	UMNH	29790	2000	7	17	39.03690	-114.13210	NAD 1927	5275
165	UMNH	29682	2000	7	17	39.03690	-114.13210	NAD 1927	5275
166	FMNH	168598	2000	7	17	39.03690	-114.13210	NAD 1927	5275
167	FMNH	168473	2000	7	18	39.03690	-114.13210	NAD 1927	5275
168	UMNH	30531	2002	8	1	38.92991	-114.25253	NAD 1927	8350
169	UMNH	30532	2002	8	1	38.92991	-114.25253	NAD 1927	8350
170	UMNH	30533	2002	8	1	38.92991	-114.25253	NAD 1927	8350
171	FMNH	168587	2000	7	15	39.00890	-114.20785	NAD 1927	6580
172	FMNH	168588	2000	7	15	39.00890	-114.20785	NAD 1927	6580
173	FMNH	168543	2000	7	15	39.00890	-114.20785	NAD 1927	6580
174	UMNH	29764	2000	7	15	39.00890	-114.20785	NAD 1927	6580
175	FMNH	168544	2000	7	15	39.00890	-114.20785	NAD 1927	6580
176	FMNH	168589	2000	7	15	39.00890	-114.20785	NAD 1927	6580
177	FMNH	168590	2000	7	15	39.00890	-114.20785	NAD 1927	6580
178	UMNH	29677	2000	7	16	39.02035	-114.18405	NAD 1936	6150
179	UMNH	29678	2000	7	16	39.02035	-114.18405	NAD 1937	6150
180	UMNH	29761	2000	7	12	38.99110	-114.23330	NAD 1927	7450
181	UMNH	29762	2000	7	13	38.99110	-114.23330	NAD 1927	7450
182	UMNH	29763	2000	7	14	38.99110	-114.23330	NAD 1930	7450
183	UMNH	30809	2003	5	29	39.01590	-114.12570	NAD 1927	5340
184	UMNH	30506	2002	8	4	39.05611	-114.30572	NAD 1927	7950
185	UMNH	30505	2002	8	5	39.05611	-114.30572	NAD 1927	7950
186	UMNH	30731	2003	6	12	38.88915	-114.18980	NAD 1927	6838
187	UMNH	30675	2003	6	12	38.88960	-114.18860	NAD 1927	6979
188	UMNH	30504	2002	6	4	38.91970	-114.17811	NAD 1927	7451
189	UMNH	30503	2002	6	5	38.91970	-114.17811	NAD 1927	7451
190	FMNH	168568	2000	7	19	39.01085	-114.29865	NAD 1927	9750

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
191	FMNH	168569	2000	7	19	39.01085	-114.29865	NAD 1927	9750
192	FMNH	168493	2000	7	19	39.01085	-114.29865	NAD 1927	9750
193	FMNH	168494	2000	7	19	39.01085	-114.29865	NAD 1927	9750
194	FMNH	168495	2000	7	19	39.01085	-114.29865	NAD 1927	9750
195	FMNH	168496	2000	7	19	39.01085	-114.29865	NAD 1927	9750
196	FMNH	168497	2000	7	19	39.01085	-114.29865	NAD 1927	9750
197	FMNH	168570	2000	7	19	39.01085	-114.29865	NAD 1927	9750
198	FMNH	168571	2000	7	19	39.01085	-114.29865	NAD 1927	9750
199	FMNH	168498	2000	7	19	39.01085	-114.29865	NAD 1927	9750
200	FMNH	168499	2000	7	19	39.01085	-114.29865	NAD 1927	9750
201	FMNH	168500	2000	7	19	39.01085	-114.29865	NAD 1927	9750
202	FMNH	168501	2000	7	19	39.01085	-114.29865	NAD 1927	9750
203	FMNH	168502	2000	7	19	39.01085	-114.29865	NAD 1927	9750
204	FMNH	168503	2000	7	19	39.01085	-114.29865	NAD 1927	9750
205	FMNH	168504	2000	7	20	39.01085	-114.29865	NAD 1927	9750
206	FMNH	168572	2000	7	20	39.01085	-114.29865	NAD 1927	9750
207	FMNH	168573	2000	7	20	39.01085	-114.29865	NAD 1927	9750
208	FMNH	168574	2000	7	20	39.01085	-114.29865	NAD 1927	9750
209	FMNH	168505	2000	7	20	39.01085	-114.29865	NAD 1927	9750
210	FMNH	168506	2000	7	20	39.01085	-114.29865	NAD 1927	9750
211	FMNH	168507	2000	7	20	39.01085	-114.29865	NAD 1927	9750
212	FMNH	168522	2000	7	22	39.01085	-114.29865	NAD 1930	9750
213	UMNH	29746	2000	7	24	39.00890	-114.31330	NAD 1927	10200
214	UMNH	29747	2000	7	24	39.00890	-114.31330	NAD 1927	10200
215	UMNH	29697	2000	7	20	39.01375	-114.29670	NAD 1927	9650
216	UMNH	29741	2000	7	21	39.01375	-114.29670	NAD 1927	9650
217	UMNH	29742	2000	7	21	39.01375	-114.29670	NAD 1927	9650
218	UMNH	29734	2000	7	19	39.00885	-114.30415	NAD 1907	9900
219	UMNH	29735	2000	7	19	39.00885	-114.30415	NAD 1908	9900
220	UMNH	29688	2000	7	19	39.00885	-114.30415	NAD 1909	9900
221	UMNH	29770	2000	7	19	39.00885	-114.30415	NAD 1910	9900
222	UMNH	29689	2000	7	19	39.00885	-114.30415	NAD 1911	9900
223	UMNH	29736	2000	7	19	39.00885	-114.30415	NAD 1912	9900
224	UMNH	29690	2000	7	19	39.00885	-114.30415	NAD 1913	9900
225	UMNH	29691	2000	7	19	39.00885	-114.30415	NAD 1914	9900
226	UMNH	29737	2000	7	19	39.00885	-114.30415	NAD 1915	9900
227	UMNH	29738	2000	7	19	39.00885	-114.30415	NAD 1916	9900
228	UMNH	29739	2000	7	19	39.00885	-114.30415	NAD 1917	9900

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
229	UMNH	29692	2000	7	20	39.00885	-114.30415	NAD 1919	9900
230	UMNH	29740	2000	7	20	39.00885	-114.30415	NAD 1924	9900
231	UMNH	29695	2000	7	20	39.00885	-114.30415	NAD 1925	9900
232	UMNH	29743	2000	7	23	39.00210	-114.32235	NAD 1927	11000
233	UMNH	29744	2000	7	23	39.00210	-114.32235	NAD 1927	11000
234	UMNH	29711	2000	7	23	39.00210	-114.32235	NAD 1927	11000
235	UMNH	29712	2000	7	23	39.00210	-114.32235	NAD 1927	11000
236	UMNH	29745	2000	7	23	39.00210	-114.32235	NAD 1927	11000
237	FMNH	168523	2000	7	23	39.00210	-114.32235	NAD 1918	11000
238	FMNH	168524	2000	7	23	39.00210	-114.32235	NAD 1919	11000
239	FMNH	168525	2000	7	23	39.00210	-114.32235	NAD 1920	11000
240	FMNH	168526	2000	7	23	39.00210	-114.32235	NAD 1921	11000
241	FMNH	168527	2000	7	23	39.00210	-114.32235	NAD 1922	11000
242	FMNH	168528	2000	7	23	39.00210	-114.32235	NAD 1923	11000
243	FMNH	168529	2000	7	23	39.00210	-114.32235	NAD 1924	11000
244	UMNH	30653	2003	6	8	38.95348	-114.30087	NAD 1927	10660
245	UMNH	30654	2003	6	8	38.95348	-114.30087	NAD 1927	10660
246	UMNH	30655	2003	6	8	38.95348	-114.30087	NAD 1927	10660
247	UMNH	30656	2003	6	8	38.95348	-114.30087	NAD 1927	10660
248	UMNH	30660	2003	6	9	38.95348	-114.30087	NAD 1927	10660
249	UMNH	30661	2003	6	9	38.95348	-114.30087	NAD 1927	10660
250	UMNH	30662	2003	6	9	38.95348	-114.30087	NAD 1927	10660
251	UMNH	30663	2003	6	9	38.95348	-114.30087	NAD 1927	10660
252	FMNH	168566	2000	7	15	39.00890	-114.20785	NAD 1927	6580
253	FMNH	168567	2000	7	15	39.00890	-114.20785	NAD 1927	6580
254	FMNH	168489	2000	7	15	39.00890	-114.20785	NAD 1927	6580
255	FMNH	168490	2000	7	16	39.00890	-114.20785	NAD 1927	6580
256	UMNH	30682	2003	8	13	38.90070	-114.29815	NAD 1927	10605
257	UMNH	30683	2003	8	13	38.90070	-114.29815	NAD 1927	10605
258	UMNH	30684	2003	8	13	38.90070	-114.29815	NAD 1927	10605
259	UMNH	30685	2003	8	13	38.90070	-114.29815	NAD 1927	10605
260	UMNH	30686	2003	8	13	38.90070	-114.29815	NAD 1927	10605
261	UMNH	30687	2003	8	13	38.90070	-114.29815	NAD 1927	10605
262	UMNH	30688	2003	8	13	38.90070	-114.29815	NAD 1927	10605
263	UMNH	30689	2003	8	13	38.90070	-114.29815	NAD 1927	10605
264	UMNH	30690	2003	8	13	38.90070	-114.29815	NAD 1927	10605
265	UMNH	30734	2003	8	13	38.90070	-114.29815	NAD 1927	10605
266	UMNH	30735	2003	8	13	38.90070	-114.29815	NAD 1927	10605

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
267	UMNH	30736	2003	8	13	38.90070	-114.29815	NAD 1927	10605
268	UMNH	30737	2003	8	13	38.90070	-114.29815	NAD 1927	10605
269	UMNH	30717	2003	8	15	38.90070	-114.29815	NAD 1927	10605
270	UMNH	30718	2003	8	15	38.90070	-114.29815	NAD 1927	10605
271	UMNH	30714	2003	8	13	38.90070	-114.29815	NAD 1927	10650
272	UMNH	29679	2000	7	16	39.02035	-114.18405	NAD 1938	6150
273	UMNH	29680	2000	7	16	39.02035	-114.18405	NAD 1939	6150
274	UMNH	29732	2000	7	16	39.02035	-114.18405	NAD 1940	6150
275	FMNH	168491	2000	7	17	39.02035	-114.18405	NAD 1927	6150
276	UMNH	29733	2000	7	18	39.02035	-114.18405	NAD 1944	6150
277	UMNH	29721	2000	7	12	38.99110	-114.23330	NAD 1927	7450
278	UMNH	29722	2000	7	12	38.99110	-114.23330	NAD 1927	7450
279	UMNH	29723	2000	7	12	38.99110	-114.23330	NAD 1927	7450
280	UMNH	29724	2000	7	12	38.99110	-114.23330	NAD 1927	7450
281	UMNH	29725	2000	7	12	38.99110	-114.23330	NAD 1927	7450
282	UMNH	29726	2000	7	13	38.99110	-114.23330	NAD 1927	7450
283	UMNH	29671	2000	7	14	38.99110	-114.23330	NAD 1928	7450
284	UMNH	29731	2000	7	14	38.99110	-114.23330	NAD 1929	7450
285	UMNH	29715	2000	7	24	39.02260	-114.26585	NAD 1927	9200
286	UMNH	29716	2000	7	24	39.02260	-114.26585	NAD 1927	9200
287	UMNH	29717	2000	7	24	39.02260	-114.26585	NAD 1927	9200
288	UMNH	29748	2000	7	24	39.02260	-114.26585	NAD 1927	9200
289	UMNH	29782	2000	7	24	39.02260	-114.26585	NAD 1927	9200
290	UMNH	29749	2000	7	24	39.02260	-114.26585	NAD 1927	9200
291	UMNH	29718	2000	7	24	39.02260	-114.26585	NAD 1927	9200
292	UMNH	29719	2000	7	24	39.02260	-114.26585	NAD 1927	9200
293	UMNH	29750	2000	7	24	39.02260	-114.26585	NAD 1927	9200
294	UMNH	29751	2000	7	24	39.02260	-114.26585	NAD 1927	9200
295	UMNH	29752	2000	7	24	39.02260	-114.26585	NAD 1927	9200
296	UMNH	29753	2000	7	24	39.02260	-114.26585	NAD 1927	9200
297	UMNH	29755	2000	7	24	39.02260	-114.26585	NAD 1927	9200
298	UMNH	29754	2000	7	24	39.02260	-114.26585	NAD 1927	9200
299	UMNH	29756	2000	7	24	39.02260	-114.26585	NAD 1927	9200
300	UMNH	29757	2000	7	24	39.02260	-114.26585	NAD 1927	9200
301	UMNH	29758	2000	7	24	39.02260	-114.26585	NAD 1927	9200
302	UMNH	29759	2000	7	24	39.02260	-114.26585	NAD 1927	9200
303	UMNH	29760	2000	7	24	39.02260	-114.26585	NAD 1927	9200
304	UMNH	29666	2000	7	13	38.98920	-114.23760	NAD 1927	7550

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
305	UMNH	29667	2000	7	13	38.98920	-114.23760	NAD 1927	7550
306	UMNH	29727	2000	7	13	38.98920	-114.23760	NAD 1927	7550
307	UMNH	29728	2000	7	13	38.98920	-114.23760	NAD 1927	7550
308	UMNH	29669	2000	7	14	38.98920	-114.23760	NAD 1927	7550
309	UMNH	29670	2000	7	14	38.98920	-114.23760	NAD 1927	7550
310	UMNH	29729	2000	7	14	38.98920	-114.23760	NAD 1927	7550
311	UMNH	29730	2000	7	14	38.98920	-114.23760	NAD 1927	7550
312	FMNH	168492	2000	7	18	39.03690	-114.13210	NAD 1927	5275
313	FMNH	168530	2000	7	25	39.03180	-114.26515	NAD 1927	8500
314	FMNH	168531	2000	7	25	39.03180	-114.26515	NAD 1927	8500
315	FMNH	168532	2000	7	25	39.03180	-114.26515	NAD 1927	8500
316	FMNH	168533	2000	7	25	39.03180	-114.26515	NAD 1927	8500
317	FMNH	168534	2000	7	25	39.03180	-114.26515	NAD 1927	8500
318	FMNH	168535	2000	7	25	39.03180	-114.26515	NAD 1927	8500
319	FMNH	168536	2000	7	25	39.03180	-114.26515	NAD 1927	8500
320	FMNH	168537	2000	7	25	39.03180	-114.26515	NAD 1927	8500
321	FMNH	168538	2000	7	25	39.03180	-114.26515	NAD 1927	8500
322	FMNH	168539	2000	7	25	39.03180	-114.26515	NAD 1927	8500
323	FMNH	168475	2000	7	13	38.99145	-114.21865	NAD 1925	7080
324	FMNH	168476	2000	7	13	38.99145	-114.21865	NAD 1926	7080
325	FMNH	168488	2000	7	14	38.99145	-114.21865	NAD 1927	7080
326	FMNH	168477	2000	7	13	38.99030	-114.21865	NAD 1927	7150
327	FMNH	168478	2000	7	13	38.99030	-114.21865	NAD 1927	7150
328	FMNH	168479	2000	7	13	38.99030	-114.21865	NAD 1927	7150
329	FMNH	168480	2000	7	13	38.99030	-114.21865	NAD 1927	7150
330	FMNH	168481	2000	7	13	38.99030	-114.21865	NAD 1927	7150
331	FMNH	168482	2000	7	13	38.99030	-114.21865	NAD 1927	7150
332	FMNH	168563	2000	7	14	38.99030	-114.21865	NAD 1927	7150
333	FMNH	168483	2000	7	14	38.99030	-114.21865	NAD 1927	7150
334	FMNH	168484	2000	7	14	38.99030	-114.21865	NAD 1927	7150
335	FMNH	168564	2000	7	14	38.99030	-114.21865	NAD 1927	7150
336	FMNH	168565	2000	7	14	38.99030	-114.21865	NAD 1927	7150
337	FMNH	168485	2000	7	14	38.99030	-114.21865	NAD 1927	7150
338	FMNH	168486	2000	7	14	38.99030	-114.21865	NAD 1927	7150
339	FMNH	168487	2000	7	14	38.99030	-114.21865	NAD 1927	7150
340	FMNH	168508	2000	7	21	39.00400	-114.30060	NAD 1927	10200
341	FMNH	168509	2000	7	21	39.00400	-114.30060	NAD 1927	10200
342	FMNH	168510	2000	7	21	39.00400	-114.30060	NAD 1927	10200

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
343	FMNH	168511	2000	7	21	39.00400	-114.30060	NAD 1927	10200
344	FMNH	168512	2000	7	21	39.00400	-114.30060	NAD 1927	10200
345	FMNH	168513	2000	7	21	39.00400	-114.30060	NAD 1927	10200
346	FMNH	168514	2000	7	21	39.00400	-114.30060	NAD 1927	10200
347	FMNH	168515	2000	7	21	39.00400	-114.30060	NAD 1927	10200
348	FMNH	168516	2000	7	21	39.00400	-114.30060	NAD 1927	10200
349	FMNH	168517	2000	7	21	39.00400	-114.30060	NAD 1927	10200
350	FMNH	168518	2000	7	21	39.00400	-114.30060	NAD 1927	10200
351	FMNH	168519	2000	7	21	39.00400	-114.30060	NAD 1927	10200
352	FMNH	168520	2000	7	21	39.00400	-114.30060	NAD 1927	10200
353	FMNH	168521	2000	7	21	39.00400	-114.30060	NAD 1927	10200
354	FMNH	168575	2000	7	21	39.00400	-114.30060	NAD 1927	10200
355	FMNH	168576	2000	7	21	39.00400	-114.30060	NAD 1927	10200
356	FMNH	168577	2000	7	21	39.00400	-114.30060	NAD 1927	10200
357	FMNH	168578	2000	7	21	39.00400	-114.30060	NAD 1927	10200
358	FMNH	168579	2000	7	21	39.00400	-114.30060	NAD 1927	10200
359	FMNH	168580	2000	7	21	39.00400	-114.30060	NAD 1927	10200
360	FMNH	168581	2000	7	21	39.00400	-114.30060	NAD 1927	10200
361	FMNH	168582	2000	7	21	39.00400	-114.30060	NAD 1927	10200
362	UMNH	30810	2003	4	29	39.01590	-114.12570	NAD 1927	5340
363	UMNH	30811	2003	4	30	39.01590	-114.12570	NAD 1927	5340
364	UMNH	29704	2000	7	21	39.01050	-114.29805	NAD 1927	9750
365	UMNH	30812	2003	4	28	39.01000	-114.21000	NAD 1927	6600
366	UMNH	30825	2003	4	28	39.01000	-114.21000	NAD 1927	6600
367	UMNH	30821	2003	4	30	39.01000	-114.21000	NAD 1927	6600
368	UMNH	30822	2003	4	30	39.01000	-114.21000	NAD 1927	6600
369	UMNH	30823	2003	4	30	39.01000	-114.21000	NAD 1927	6600
370	UMNH	30820	2003	4	30	39.01735	-114.23135	NAD 1927	7160
371	UMNH	30818	2003	4	30	38.99580	-114.20875	NAD 1927	7000
372	UMNH	30741	2003	8	14	38.90134	-114.29564	NAD 1927	10700
373	UMNH	30742	2003	8	14	38.90134	-114.29564	NAD 1927	10700
374	UMNH	30743	2003	8	14	38.90134	-114.29564	NAD 1927	10700
375	UMNH	30744	2003	8	14	38.90134	-114.29564	NAD 1927	10700
376	UMNH	30693	2003	8	14	38.90134	-114.29564	NAD 1927	10700
377	UMNH	30694	2003	8	14	38.90134	-114.29564	NAD 1927	10700
378	UMNH	30695	2003	8	14	38.90134	-114.29564	NAD 1927	10700
379	UMNH	30696	2003	8	14	38.90134	-114.29564	NAD 1927	10700
380	UMNH	30697	2003	8	14	38.90134	-114.29564	NAD 1927	10700

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
381	UMNH	30698	2003	8	14	38.90134	-114.29564	NAD 1927	10700
382	UMNH	30699	2003	8	14	38.90134	-114.29564	NAD 1927	10700
383	UMNH	30700	2003	8	14	38.90134	-114.29564	NAD 1927	10700
384	UMNH	30701	2003	8	14	38.90134	-114.29564	NAD 1927	10700
385	UMNH	30702	2003	8	14	38.90134	-114.29564	NAD 1927	10700
386	UMNH	30745	2003	8	14	38.90134	-114.29564	NAD 1927	10700
387	UMNH	30746	2003	8	14	38.90134	-114.29564	NAD 1927	10700
388	UMNH	30747	2003	8	14	38.90134	-114.29564	NAD 1927	10700
389	UMNH	30748	2003	8	14	38.90134	-114.29564	NAD 1927	10700
390	UMNH	30703	2003	8	14	38.90134	-114.29564	NAD 1927	10700
391	UMNH	30704	2003	8	14	38.90134	-114.29564	NAD 1927	10700
392	UMNH	30705	2003	8	14	38.90134	-114.29564	NAD 1927	10700
393	UMNH	30706	2003	8	14	38.90134	-114.29564	NAD 1927	10700
394	UMNH	30707	2003	8	14	38.90134	-114.29564	NAD 1927	10700
395	UMNH	30711	2003	8	14	38.90474	-114.30159	NAD 1927	10817
396	UMNH	30738	2003	8	13	38.88859	-114.29816	NAD 1927	11226
397	UMNH	30739	2003	8	13	38.88859	-114.29816	NAD 1927	11226
398	UMNH	30691	2003	8	13	38.88859	-114.29816	NAD 1927	11226
399	UMNH	30487	2002	8	2	38.92830	-114.25469	NAD 1927	8350
400	UMNH	30488	2002	8	2	38.92830	-114.25469	NAD 1927	8350
401	UMNH	30473	2002	6	7	38.91713	-114.19189	NAD 1927	7098
402	UMNH	30474	2002	6	7	38.91713	-114.19189	NAD 1927	7098
403	UMNH	30472	2002	6	8	38.91713	-114.19189	NAD 1927	7098
404	UMNH	30471	2002	6	9	38.91713	-114.19189	NAD 1927	7098
405	UMNH	30480	2002	7	31	38.92836	-114.25395	NAD 1927	8365
406	UMNH	30481	2002	7	31	38.92836	-114.25395	NAD 1927	8365
407	UMNH	30482	2002	7	31	38.92836	-114.25395	NAD 1927	8365
408	UMNH	30483	2002	7	31	38.92836	-114.25395	NAD 1927	8365
409	UMNH	30484	2002	7	31	38.92836	-114.25395	NAD 1927	8365
410	UMNH	30485	2002	7	31	38.92836	-114.25395	NAD 1927	8365
411	UMNH	30486	2002	7	31	38.92836	-114.25395	NAD 1927	8365
412	UMNH	30479	2002	8	2	38.92836	-114.25395	NAD 1927	8365
413	UMNH	30465	2002	6	4	38.92482	-114.19283	NAD 1927	7478
414	UMNH	30468	2002	6	4	38.91318	-114.19755	NAD 1927	8350
415	UMNH	30469	2002	6	4	38.91318	-114.19755	NAD 1927	8350
416	UMNH	30466	2002	6	5	38.91318	-114.19755	NAD 1927	8350
417	UMNH	30467	2002	6	5	38.91318	-114.19755	NAD 1927	8350
418	UMNH	30470	2002	6	7	38.91064	-114.19827	NAD 1927	7817

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
419	UMNH	30475	2002	6	7	38.91329	-114.15289	NAD 1927	6444
420	UMNH	30672	2003	6	11	38.88253	-114.19378	NAD 1927	7010
421	UMNH	30677	2003	6	12	38.88253	-114.19378	NAD 1927	7010
422	UMNH	30678	2003	6	12	38.88253	-114.19378	NAD 1927	7010
423	UMNH	30723	2003	6	11	38.87941	-114.19861	NAD 1927	7075
424	UMNH	30724	2003	6	11	38.87941	-114.19861	NAD 1927	7075
425	UMNH	30725	2003	6	11	38.87941	-114.19861	NAD 1927	7075
426	UMNH	30665	2003	6	11	38.87941	-114.19861	NAD 1927	7075
427	UMNH	30666	2003	6	11	38.87941	-114.19861	NAD 1927	7075
428	UMNH	30667	2003	6	11	38.87941	-114.19861	NAD 1927	7075
429	UMNH	30668	2003	6	11	38.87941	-114.19861	NAD 1927	7075
430	UMNH	30679	2003	6	12	38.87941	-114.19861	NAD 1927	7075
431	UMNH	30680	2003	6	12	38.87941	-114.19861	NAD 1927	7075
432	UMNH	30681	2003	6	12	38.87941	-114.19861	NAD 1927	7075
433	UMNH	30733	2003	6	12	38.87941	-114.19861	NAD 1927	7075
434	UMNH	30664	2003	6	11	38.88181	-114.19554	NAD 1927	7030
435	UMNH	30676	2003	6	12	38.88181	-114.19554	NAD 1927	7030
436	UMNH	30715	2003	8	15	38.89496	-114.30187	NAD1927	10225
437	UMNH	30716	2003	8	15	38.89496	-114.30187	NAD1927	10225
438	UMNH	29705	2000	7	23	39.00680	-114.31660	NAD 1927	10350
439	UMNH	30477	2002	8	4	39.05611	-114.30572	NAD 1927	7950
440	UMNH	30478	2002	8	4	39.05611	-114.30572	NAD 1927	7950
441	UMNH	30476	2002	8	5	39.05611	-114.30572	NAD 1927	7950
442	UMNH	30491	2002	8	3	39.05761	-114.28178	NAD 1927	7496
443	UMNH	30490	2002	8	4	39.05761	-114.28178	NAD 1927	7496
444	UMNH	30489	2002	8	5	39.05761	-114.28178	NAD 1927	7496
445	UMNH	30496	2002	8	3	39.05606	-114.28014	NAD 1927	7775
446	UMNH	30497	2002	8	3	39.05606	-114.28014	NAD 1927	7775
447	UMNH	30495	2002	8	4	39.05606	-114.28014	NAD 1927	7775
448	UMNH	30492	2002	8	5	39.05606	-114.28014	NAD 1927	7775
449	UMNH	30493	2002	8	5	39.05606	-114.28014	NAD 1927	7775
450	UMNH	30494	2002	8	5	39.05606	-114.28014	NAD 1927	7775
451	UMNH	30501	2002	8	4	39.05405	-114.30292	NAD 1927	7920
452	UMNH	30502	2002	8	4	39.05405	-114.30292	NAD 1927	7920
453	UMNH	30499	2002	8	5	39.05405	-114.30292	NAD 1927	7920
454	UMNH	30500	2002	8	5	39.05405	-114.30292	NAD 1927	7920
455	UMNH	30498	2002	8	5	39.05405	-114.30292	NAD 1927	7920
456	UMNH	30651	2003	6	8	38.95348	-114.30087	NAD 1927	10660

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
457	FMNH	168583	2000	7	13	38.99145	-114.21865	NAD 1927	7080
458	FMNH	168584	2000	7	13	38.99145	-114.21865	NAD 1927	7080
459	FMNH	168540	2000	7	13	38.99145	-114.21865	NAD 1927	7080
460	FMNH	168541	2000	7	13	38.99145	-114.21865	NAD 1927	7080
461	FMNH	168542	2000	7	13	38.99145	-114.21865	NAD 1927	7080
462	FMNH	168585	2000	7	14	38.99145	-114.21865	NAD 1927	7080
463	FMNH	168586	2000	7	14	38.99145	-114.21865	NAD 1927	7080
464	UMNH	30808	2003	5	4	39.01590	-114.12570	NAD 1927	5340
465	UMNH	30813	2003	4	28	39.01875	-114.12405	NAD 1927	5300
466	UMNH	30817	2003	4	30	38.99580	-114.20875	NAD 1927	7000
467	UMNH	30740	2003	8	14	38.90134	-114.29564	NAD 1927	10700
468	UMNH	30463	2002	6	4	38.91970	-114.17811	NAD 1927	7451
469	UMNH	30459	2002	6	6	38.92056	-114.18996	NAD 1927	7260
470	UMNH	30462	2002	6	6	38.92606	-114.19603	NAD 1927	7697
471	UMNH	30460	2002	6	6	38.91318	-114.19755	NAD 1927	7592
472	UMNH	30461	2002	6	4	38.91318	-114.19755	NAD 1927	8350
473	UMNH	30727	2003	6	11	38.88253	-114.19378	NAD 1927	7010
474	UMNH	30669	2003	6	11	38.88253	-114.19378	NAD 1927	7010
475	UMNH	30670	2003	6	11	38.88253	-114.19378	NAD 1927	7010
476	UMNH	30729	2003	6	11	38.88253	-114.19378	NAD 1927	7010
477	UMNH	30671	2003	6	11	38.88253	-114.19378	NAD 1927	7010
478	UMNH	30732	2003	6	12	38.88253	-114.19378	NAD 1927	7010
479	UMNH	30722	2003	6	11	38.87941	-114.19861	NAD 1927	7075
480	UMNH	30464	2002	8	4	39.05761	-114.28178	NAD 1927	7496
481	UMNH	30814	2003	6	2	39.01875	-114.12405	NAD 1927	5300
482	UMNH	30815	2003	6	2	39.01875	-114.12405	NAD 1927	5300
483	UMNH	29794	2000	7	24	39.02260	-114.26585	NAD 1927	9200
484	UMNH	29685	2000	7	18	39.02035	-114.18405	NAD 1943	6150
485	FMNH	168474	2000	7	18	39.02035	-114.18405	NAD 1928	6150
486	UMNH	30673	2003	6	11	38.89230	-114.19835	NAD 1927	7010
487	FMNH	168593	2000	7	19	39.01085	-114.29865	NAD 1927	9750
488	FMNH	168547	2000	7	19	39.01085	-114.29865	NAD 1927	9750
489	FMNH	168548	2000	7	19	39.01085	-114.29865	NAD 1927	9750
490	FMNH	168549	2000	7	20	39.01085	-114.29865	NAD 1927	9750
491	UMNH	29694	2000	7	20	39.00885	-114.30415	NAD 1923	9900
492	UMNH	29687	2000	7	19	39.00885	-114.30415	NAD 1906	9900
493	UMNH	29710	2000	7	23	39.00210	-114.32235	NAD 1927	11000
494	UMNH	30652	2003	6	8	38.95348	-114.30087	NAD 1927	10660

Appendix 3 (extended).

	Museum acronym	Catnum	Year	Mo	Day	Declat.	Declong	Datum	Elev. (ft)
495	UMNH	30658	2003	6	9	38.95348	-114.30087	NAD 1927	10660
496	UMNH	30659	2003	6	9	38.95348	-114.30087	NAD 1927	10660
497	FMNH	168545	2000	7	15	39.00890	-114.20785	NAD 1927	6580
498	FMNH	168546	2000	7	15	39.00890	-114.20785	NAD 1927	6580
499	FMNH	168591	2000	7	16	39.00890	-114.20785	NAD 1927	6580
500	FMNH	168592	2000	7	16	39.00890	-114.20785	NAD 1927	6580
501	UMNH	29767	2000	7	13	38.98920	-114.23760	NAD 1927	7550
502	UMNH	29768	2000	7	14	38.98920	-114.23760	NAD 1927	7550
503	UMNH	29668	2000	7	14	38.98920	-114.23760	NAD 1927	7550
504	UMNH	30816	2003	4	30	38.99580	-114.20875	NAD 1927	7000
505	UMNH	30726	2003	6	11	38.88253	-114.19378	NAD 1927	7010
506	UMNH	29706	2000	7	23	39.00680	-114.31660	NAD 1927	10350
507	UMNH	29769	2000	7	23	39.00680	-114.31660	NAD 1927	10350
508	UMNH	29707	2000	7	23	39.00680	-114.31660	NAD 1927	10350
509	UMNH	29771	2000	7	23	39.00680	-114.31660	NAD 1927	10350
510	UMNH	29772	2000	7	23	39.00680	-114.31660	NAD 1927	10350
511	UMNH	29773	2000	7	23	39.00680	-114.31660	NAD 1927	10350
512	UMNH	30455	2002	8	4	39.05611	-114.30572	NAD 1927	7950
513	UMNH	29766	2000	7	24	39.00890	-114.31330	NAD 1927	10200
514	UMNH	29765	2000	7	12	38.99110	-114.23330	NAD 1927	7450
515	UMNH	30819	2003	4	30	39.01735	-114.23135	NAD 1927	7160
516	UMNH	30453	2002	8	1	38.92991	-114.25253	NAD 1927	8350
517	UMNH	30454	2002	8	1	38.92991	-114.25253	NAD 1927	8350
518	UMNH	30452	2002	8	1	38.92836	-114.25395	NAD 1927	8365
519	UMNH	30450	2002	8	4	39.05611	-114.30572	NAD 1927	7950
520	UMNH	30451	2002	8	4	39.05611	-114.30572	NAD 1927	7950

Appendix 4. Results of grid trapping in Snake Creek and Strawberry Creek canyons in 2002 (total of 630 trap-nights).

SITE #	LOCALITY DESCRIPT	DATE	FIELD #	UMNH CATALOG NUMBER	DECLAT (NAD 27)	DECLONG (NAD 27)	UTM NORTH (NAD 83) (ZONE 11S)	UTM EAST (NAD 83) (ZONE 11S)	ELEV (ft)	TRAP TYPE	GENUS	SPECIES	COMMON NAME	PREP	SEX	AGE
Non-permanent Grids																
0001	Snake site 44	6-Jun-02	4778	30459	38.92056	114.18996	743543	4311719	7260	snap	Peromyscus	truei	Piñon mouse	skeleton	F	ADULT
0002	Snake site 31	4-Jun-02	4770	30465	38.92482	114.19283	743365	4311979	7478	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	SUBAD
0002	Snake site 31	4-Jun-02	n/a	n/a	38.92482	114.19283	743365	4311979	7478	sherman	Peromyscus	maniculatus	Deer mouse	released	UNK	UNK
0003	Snake site 50	4-Jun-02	4768	30461	38.91318	114.19755	743073	4310875	8350	snap	Peromyscus	truei	Piñon mouse	fluid	F	JUV
0003	Snake site 50	4-Jun-02	4767	30468	38.91318	114.19755	743073	4310875	8350	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	JUV
0003	Snake site 50	4-Jun-02	4769	30469	38.91318	114.19755	743073	4310875	8350	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	ADULT
0003	Snake site 50	5-Jun-02	4775	30466	38.91318	114.19755	743073	4310875	8350	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	SUBAD
0003	Snake site 50	5-Jun-02	4776	30467	38.91318	114.19755	743073	4310875	8350	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	SUBAD
0003	Snake site 50	5-Jun-02	4779	30460	38.91318	114.19755	743073	4310875	8350	sherman	Tamias	dorsalis	Cliff chipmunk	skeleton	M	ADULT
0003	Snake site 50	6-Jun-02	n/a	n/a	38.91318	114.19755	743073	4310875	8350	sherman	Tamias	dorsalis	Cliff chipmunk	released	UNK	UNK
0004	Snake site 46	5-Jun-02	4776a	30529	38.92606	114.19603	743125	4312300	7697	snap	Tamias	dorsalis	Cliff chipmunk	fluid	F	ADULT
0004	Snake site 46	6-Jun-02	4780	30456	38.92606	114.19603	743125	4312300	7697	snap	Perognathus	parvus	Great Basin pocket mouse	fluid	F	ADULT
0004	Snake site 46	6-Jun-02	4777	30462	38.92606	114.19603	743125	4312300	7697	snap	Peromyscus	truei	Piñon mouse	skeleton	M	ADULT
0005	Snake site 49	8-Jun-02	4786	30457	38.91935	114.14137	747785	4311702	6305	snap	Perognathus	parvus	Great Basin pocket mouse	fluid	F	SUBAD
0005	Snake site 49	7-Jun-02	n/a	n/a	38.91935	114.14137	747785	4311702	6305	sherman	Perognathus	parvus	Great Basin pocket mouse	released	UNK	UNK
0005	Snake site 49	6-Jun-02	n/a	n/a	38.91935	114.14137	747785	4311702	6305	sherman	Perognathus	parvus	Great Basin pocket mouse	released	UNK	UNK
Permanent Grids																
1001	Snake LO-MD	4-Jun-02	n/a	n/a	38.91636	114.16468	745841	4311120	6889	sherman	Perognathus	parvus	Great Basin pocket mouse	released	UNK	UNK
1002	Snake MD-1	4-Jun-02	4771	30463	38.9197	114.17811	744627	4311472	7451	snap	Peromyscus	truei	Piñon mouse	fluid	M	ADULT
1002	Snake MD-1	4-Jun-02	4772	30504	38.9197	114.17811	744627	4311472	7451	snap	Peromyscus	crinitus	Canyon mouse	fluid	M	ADULT
1002	Snake MD-1	4-Jun-02	4773	30530	38.9197	114.17811	744627	4311472	7451	sherman	Tamias	dorsalis	Cliff chipmunk	fluid	F	ADULT
1002	Snake MD-1	5-Jun-02	4774	30503	38.9197	114.17811	744627	4311472	7451	snap	Peromyscus	crinitus	Canyon mouse	fluid	F	ADULT
1002	Snake MD-1	5-Jun-02	n/a	n/a	38.9197	114.17811	744627	4311472	7451	sherman	Tamias	dorsalis	Cliff chipmunk	released	UNK	UNK
1003	Snake MD-2	1-Aug-02	4851	30521	38.9283	114.25469	737926	4312391	8350	snap	Tamias	umbrinus	Uinta chipmunk	fluid	M	ADULT
1003	Snake MD-2	1-Aug-02	4853	30522	38.9283	114.25469	737926	4312391	8350	snap	Tamias	umbrinus	Uinta chipmunk	fluid	F	ADULT
1003	Snake MD-2	1-Aug-02	4854	30523	38.9283	114.25469	737926	4312391	8350	snap	Tamias	umbrinus	Uinta chipmunk	fluid	F	ADULT
1003	Snake MD-2	2-Aug-02	4866	30487	38.9283	114.25469	737926	4312391	8350	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	JUV
1003	Snake MD-2	2-Aug-02	4867	30488	38.9283	114.25469	737926	4312391	8350	snap	Peromyscus	maniculatus	Deer mouse	skeleton	M	JUV
1003	Snake MD-2	2-Aug-02	n/a	n/a	38.9283	114.25469	737926	4312391	8350	sherman	Peromyscus	maniculatus	Deer mouse	released	UNK	UNK
1003	Snake MD-2	2-Aug-02	n/a	n/a	38.9283	114.25469	737926	4312391	8350	sherman	Tamias	umbrinus	Uinta chipmunk	released	UNK	UNK
1004	Straw LO-MD	3-Aug-02	4870	30491	39.05761	114.28178	735152	4326676	7496	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	SUBAD
1004	Straw LO-MD	4-Aug-02	4881	30464	39.05761	114.28178	735152	4326676	7496	snap	Peromyscus	truei	Piñon mouse	fluid	F	ADULT
1004	Straw LO-MD	4-Aug-02	4882	30490	39.05761	114.28178	735152	4326676	7496	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	JUV
1004	Straw LO-MD	5-Aug-02	4893	30489	39.05761	114.28178	735152	4326676	7496	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	JUV
1004	Straw LO-MD	5-Aug-02	n/a	n/a	39.05761	114.28178	735152	4326676	7496	sherman	Peromyscus	maniculatus	Deer mouse	released	UNK	UNK
1005	Straw MD-1	3-Aug-02	4869	30496	39.05606	114.28014	735301	4326501	7775	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	JUV
1005	Straw MD-1	3-Aug-02	4871	30497	39.05606	114.28014	735301	4326501	7775	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	JUV
1005	Straw MD-1	3-Aug-02	4872	30524	39.05606	114.28014	735301	4326501	7775	snap	Tamias	umbrinus	Uinta chipmunk	fluid	M	SUBAD
1005	Straw MD-1	4-Aug-02	4883b	30495	39.05606	114.28014	735301	4326501	7775	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	ADULT
1005	Straw MD-1	5-Aug-02	4890	30492	39.05606	114.28014	735301	4326501	7775	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	SUBAD
1005	Straw MD-1	5-Aug-02	4891	30493	39.05606	114.28014	735301	4326501	7775	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	SUBAD
1005	Straw MD-1	5-Aug-02	4892	30494	39.05606	114.28014	735301	4326501	7775	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	SUBAD
1005	Straw MD-1	5-Aug-02	n/a	n/a	39.05606	114.28014	735301	4326501	7775	sherman	Peromyscus	maniculatus	Deer mouse	released	UNK	UNK
1006	Straw MD-2	3-Aug-02	4873	30525	39.05405	114.30292	733334	4326222	7920	sherman	Tamias	umbrinus	Uinta chipmunk	fluid	M	ADULT
1006	Straw MD-2	4-Aug-02	4884b	30502	39.05405	114.30292	733334	4326222	7920	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	ADULT
1006	Straw MD-2	4-Aug-02	4883a	30501	39.05405	114.30292	733334	4326222	7920	snap	Peromyscus	maniculatus	Deer mouse	fluid	M	ADULT
1006	Straw MD-2	5-Aug-02	4885	30499	39.05405	114.30292	733334	4326222	7920	snap	Peromyscus	maniculatus	Deer mouse	skeleton	F	ADULT
1006	Straw MD-2	5-Aug-02	4886	30500	39.05405	114.30292	733334	4326222	7920	snap	Peromyscus	maniculatus	Deer mouse	skeleton	F	ADULT
1006	Straw MD-2	5-Aug-02	4884a	30498	39.05405	114.30292	733334	4326222	7920	snap	Peromyscus	maniculatus	Deer mouse	fluid	F	ADULT
1006	Straw MD-2	5-Aug-02	n/a	n/a	39.05405	114.30292	733334	4326222	7920	sherman	Peromyscus	maniculatus	Deer mouse	released	UNK	UNK
1006	Straw MD-2	5-Aug-02	n/a	n/a	39.05405	114.30292	733334	4326222	7920	sherman	Peromyscus	maniculatus	Deer mouse	released	UNK	UNK

Appendix 5. Summary results of grid trapping conducted in 2004 by GRBA staff at 10 sites in Lehman Flat, ca. 6800-7200 ft. (total of 1,926 trap-nights).

Species	Common name	Number of individuals
<i>Tamias dorsalis</i>	Cliff chipmunk	26
<i>Tamias umbrinus</i>	Uinta chipmunk	1
<i>Perognathus parvus</i>	Great basin pocket mouse	2
<i>Peromyscus maniculatus</i>	Deer mouse	65
<i>Peromyscus truei</i>	Piñon mouse	15
<i>Microtus longicaudus</i>	Long-tailed vole	2
<i>Mus musculus</i>	House mouse	1
unidentified <i>Tamias</i>		2
unidentified <i>Peromyscus</i>		2

Appendix 6. Sighting and sign records of mammals (other than bats) from the Great Basin National Park region.

Species	Common name	Record	Date	Locality	Northing	Easting	Elev. (ft.)	Source	Reliability	Comment
<i>Sorex palustris</i>	Water shrew	sighting	10-Jul-03	upper Strawberry Creek				D. Charlet	high	
<i>Canis latrans</i>	Coyote	scat	6-Jun-02	Snake Creek Canyon	38.92056	-114.18996	7260	UMNH	high	
		sighting	2002	Bald Mtn.			11400	John Free	high	
<i>Urocyon cinereoargenteus</i>	Gray fox	sightings	1999-2004	multiple reports in park				Allan, 2004	high	
		sighting	14-Jul-00	Baker Creek	38.99145	-114.21865	7100	UMNH	high	
		sightings	1989-2004	multiple reports in park				Allan, 2004	high	
<i>Vulpes velox</i>	Kit fox	sightings	2001-2004	multiple reports in park				Allan, 2004	high	
<i>Vulpes vulpes</i>	Red fox	sightings	2002-2004	2 reports from park				Allan, 2004	medium	possible mis-id.
<i>Bassariscus astutus</i>	Ringtail	sighting	2000	Lehman Caves vicinity			7400	GRBA	high	
		sighting	2000	Osceola Ditch int. site			8400	GRBA	high	
		sighting	2000	Upper Lehman campground			7600	GRBA	high	
		scat	3-Aug-02	Strawberry Creek Canyon	39.05761	-114.28178	7500	UMNH	high	
		various	1997-2004	multiple reports in park				Allan, 2004	high	lower elevations
<i>Procyon lotor</i>	Raccoon	various	1996	Garrison, UT				G. Dearden	high	2 animals killed
<i>Martes americana</i>	Marten	sighting	1-Jun-04	reported sighting in Baker area				Allan, 2004	none	mis-identification
<i>Mustela erminea</i>	Ermine	sighting	13-Aug-03	near Lincoln Peak	38.88859	-114.29816	11220	Bryan Hamilton	high	
		sighting	2000	Lehman visitors center				Tod Williams	high	
		sighting	2004	Lower Lehman campground				G. Allum	high	
<i>Mustela frenata</i>		sighting	1998	Baker campground				M. Renfro	high	
		sighting	1998	trail to glacier				B. Schoenfield	high	
		sighting	2000	vicinity Stella Lake				J. Carroll	high	
		sighting	2002	Baker campground				C. Stanton	high	
		sighting	2003	upper Strawberry Creek				D. Charlet	high	
		sighting	2004	Upper Lehman campground				T. Angel	high	
		sightings	recent	Upper Lehman-Wheeler Pk. trail				Neal Darby	high	multiple sightings
<i>Mephitis mephitis</i>	Striped skunk	sighting	20-Jul-02	Wheeler Peak campground	39.01083	-114.30167	9850	UMNH	high	
		various	recent	2 reports from park				Allan, 2004	medium	also unid. "skunks"
<i>Spilogale putorius</i>	Spotted skunk	various	2002	3 reports from outside park				Allan, 2004	medium	
<i>Taxidea taxus</i>	Badger	sign	Jul-00	1.6 km N, 3 km E Lehman Caves	39.02035	-114.18405	6150	UMNH	high	
		sign	Aug-03	GRBA administrative site	39.01298	-114.12376	5340	UMNH	high	
		sightings	2002-2004	multiple reports in park				Allan, 2004	high	
<i>Puma concolor</i>	Mountain lion	scat	6-Jun-02	Snake Creek Canyon	38.92056	-114.18996	7260	UMNH	high	
		scat	3-Aug-02	Strawberry Creek Canyon	39.05761	-114.28178	7500	UMNH	high	
		sightings	1988-2004	multiple reports in park				Allan, 2004	high	
<i>Lynx rufus</i>	Bobcat	sign	2000	Baker Creek			7500	UMNH	medium	
		various	1999-2004	multiple reports in park				Allan, 2004	high	
<i>Brachylagus idahoensis</i>	Pygmy rabbit	sighting	2003	reported sighting of animal	4304643N	746393E		J. Himes (NDOW)	medium	possible mis-id.
		sign	2003	fresh scat & burrows	4290984N	731879E		J. Himes (NDOW)	low	not diagnostic
		sign	2003	fresh scat & burrows	4311558N	749228E		J. Himes (NDOW)	low	not diagnostic
		sign	2003	old scat	4291963N	733066E		J. Himes (NDOW)	low	not diagnostic
<i>Lepus californicus</i>	Black-tailed jackrabbit	sighting	Jul-00	3 km E Lehman Caves	39.02035	-114.18405	6150	UMNH	high	
		sighting	11-Oct-02	0.5 km N, 1 km E Lehman Caves	39.00990	-114.20757	6575	UMNH	high	
		sighting	1-Jun-03	near N fork Baker Creek	38.95642	-114.30329	10600	UMNH	high	

Appendix 6. continued

Species	Common name	Record	Date	Locality	Northing	Easting	Elev. (ft.)	Source	Reliability	Comment
<i>Tamias dorsalis</i>	Cliff chipmunk	sighting	13-Jul-00	Baker Creek	38.99145	-114.21865	7100	UMNH	high	
<i>Spermophilus lateralis</i>	Golden-mantled grd sq	sighting	20-Jul-00	vicinity of Brown Lake	39.00400	-114.30060	10200	UMNH	high	
		sighting	12-Aug-03	ridge near Mt. Washington	38.90134	-114.29564	10700	UMNH	high	
		sighting	22-Jul-00	Wheeler Peak summit	38.98611	-114.31250	13063	UMNH	high	
		sightings	2001, 2002	Bald Mtn summit				Allan, 2004	high	
<i>Spermophilus mollis</i>	Piute ground squirrel	sign	Aug-03	GRBA administrative site	39.01298	-114.12376	5340	UMNH	high	
<i>Spermophilus variegatus</i>	Rock squirrel	roadkill	12-Oct-02	near Upper Lehman campground	39.01371	-114.24831	7600	UMNH	high	
		sighting	10-Jun-02	Snake Creek Canyon	38.91064	-114.19827	7800	UMNH	high	
		sighting	23-Jun-00	1.9 km N, 4 km W Lehman Caves	39.02260	-114.26585	9200	UMNH	high	
		sighting	2000-2003	Baker Creek trailhead			8500	UMNH	high	
<i>Marmota flaviventris</i>	Yellow-bellied marmot	sightings	1999-2003	17 reports from park region				Allan, 2004	high	
		sign	2004	Horse Heaven, Snake drainage	4314358N	743644E	9460	GRBA staff	high	
		sign	2004	Strawberry Creek drainage	4325571N	731727E	8655	GRBA staff	high	
		sign	2004	Strawberry Creek drainage	4325570N	731665E	8660	GRBA staff	high	
		sign	2004	Strawberry Creek drainage	4325468N	731529E	8750	GRBA staff	high	
		sign	2004	Strawberry Creek drainage	4325337N	731325E	8930	GRBA staff	high	
		sighting	2004	Strawberry Creek drainage	4325273N	731046E	9190	GRBA staff	high	
		sign	2004	Strawberry Creek drainage	4325384N	730706E	9420	GRBA staff	high	
		sign	2004	Baker Creek drainage	4318609N	738707E	7700	GRBA staff	high	
		sighting	2004	Baker Creek drainage	4318913N	738854E	7660	GRBA staff	high	
		sighting	2004	Baker Creek drainage	4319041N	738973E	7600	GRBA staff	high	
		sighting	2004	Baker Creek drainage	4319118N	739037E	7600	GRBA staff	high	
		sighting	2004	Baker Creek drainage	4319532N	739691E	7400	GRBA staff	high	
<i>Thomomys bottae</i>	Valley pocket gopher	sign	Jul-00	Baker Creek trailhead			8500	UMNH	high	
		sign	Jul-00	Wheeler Peak campground	39.01083	-114.30167	9850	UMNH	high	
<i>Castor canadensis</i>	Beaver	old sign	Jul-00	Baker Creek	38.98920	-114.23760	7500	UMNH	high	
		old sign		Lehman Creek				GRBA staff	high	
		old sign		Shingle Creek				GRBA staff	high	
		sighting	2003	Strawberry Creek near Park bdy				Allan, 2004	high	
<i>Ondatra zibethicus</i>	Muskrat	sighting	2000	Snake valley sites				GRBA staff	high	
		sighting	2002	Baker Creek				Tod Williams	high	
<i>Erethizon dorsatum</i>	Porcupine	sighting	2002	GRBA administrative site				Bryan Hamilton	high	
		sighting	2002	Baker				G. Schenk	high	
		sightings	1988-2003	Snake Valley sites				Allan, 2004	high	all outside of Park
<i>Cervus elaphus</i>	Wapiti	sighting	4-Aug-02	Strawberry Canyon meadow	39.05611	-114.30572	7950	UMNH	high	
		various	1998-2004	multiple reports				Allan, 2004	high	mainly Strawberry
<i>Odocoileus hemionus</i>	Mule deer	sightings	2000-2003	throughout park				UMNH	high	
<i>Antilocapra americana</i>	Pronghorn	salvage	Jul-00	2.7 km N, 0.9 km W Baker	39.03690	-114.13210	5275	UMNH	high	
		sighting	Jul-00	1.6 km N, 3 km E Lehman Caves	39.02035	-114.18405	6150	UMNH	high	
<i>Ovis canadensis</i>	Bighorn sheep	sighting	14-Aug-03	ridge near Mt. Washington	38.90134	-114.29564	10700	UMNH	high	
		various	2000-2004	multiple reports				Allan, 2004	high	

Appendix 7: Synopsis of mammal species

The following synopsis summarizes information on 82 species of Recent mammals with documented prehistoric or historical occurrence records in or near Great Basin National Park, and other species that have been considered as potentially occurring in the Park. Species accounts are arranged taxonomically, and nomenclature follows Wilson and Reader (1993). **Those species listed in bold type have been documented from localities within the Park.**

Order Insectivora

Family Soricidae

Sorex merriami -- Merriam's Shrew

Merriam's shrew has not been recorded within the Park but in 1983 a single specimen was collected just outside the Park from a locality near Baker. This widespread but seemingly uncommon species is known to occur in relatively arid habitats including sagebrush, arid grassland, and mountain mahogany communities, often near seeps and springs. Recent pitfall trapping surveys in suitable habitat along Baker, Lehman, and Snake creeks failed to document this species. From the proximity of the one known record, it must occur within the Park but undoubtedly is rare.

Historical record -- 2 mi. S Baker, 5500 ft. (1 MVZ).

Recent records -- none.

***Sorex palustris* -- Water Shrew**

Water shrews are restricted to riparian habitat, usually along permanently flowing streams at mid to high elevations. They are undeniably rare in the Park, having been recorded at only 3 localities. There is one historic record from near the head of the Baker Creek drainage, and another from relatively low elevation on Lehman Creek. Recent surveys produced only one record at higher elevations on Lehman Creek. This species was not recorded in apparently suitable habitat at localities along Big Wash, Baker, Snake and Strawberry creeks. Management practices have probably had a profound impact on the distribution and relative abundance of water shrews in the Park. Most notably the introduction of non-native trout which are likely predators.

Historical records -- Baker Creek, 11100 ft. (3 MVZ), Lehman Creek, 7500 ft. (1 MVZ).

Recent record -- Lehman Creek, 9750 ft. (1 FMNH).

***Sorex tenellus* -- Inyo Shrew**

A single specimen of this tiny shrew (2.2g) was collected in July 2000 along the south fork of Lehman Creek at 9900 feet elevation. This record is an important distributional extension for the species ca. 200 miles into the central Great Basin (Rickart et al. 2004). The Inyo shrew is a poorly known species that is relatively rare in museum collections. In part, this reflects the difficulty of capture using traditional trapping methods. The single specimen from the Park was taken in a pitfall trap in rocky, streamside habitat in spruce-fir forest (Appendix 2, Fig. 9). Several vagrant shrews were taken at this same site. Elsewhere, Inyo shrews have been found in a wide variety of habitats from piñon-juniper woodland to high elevation alpine meadows. The species may have a relatively broad distribution within the Park, but it is apparently rare.

Historical records -- none.

Recent record -- Lehman Creek, 9900 ft. (1 UMNH).

***Sorex vagrans* -- Vagrant Shrew**

The vagrant shrew is found across a broad elevation range within the Park (Fig. 2). It occurs in a wide variety of microhabitats, but is most common in relatively moist situations. In recent surveys this species was captured along stream margins, in wet meadows adjacent to springs, and on shaded forest floors. Most recent captures were made using pitfall traps which are

Appendix 7: (continued).

much more effective than standard small mammal traps for targeting shrew species. Accordingly, the disparity in numbers between historical and recent records is attributable to improved survey methods rather than differences in relative abundance.

Historical records -- Baker Creek, 6600 ft. (1 MVZ), 9000 ft. (2 MVZ), 11100 ft. (4 MVZ); Lehman Creek, 9650 ft. (1 UMNH).

Recent records -- Baker Creek 7450-7550 ft. (6 UMNH); Lehman Creek, 6575 ft. (1 UMNH), 9750-10200 ft. (12 FMNH, 10 UMNH); 0.1 km N Stella Lake 10350 ft. (1 UMNH); Snake Creek Canyon, 8350-8525 ft. (12 UMNH); Strawberry Creek, 6950-7950 ft. (2 UMNH).

Order Chiroptera

Family Vespertilionidae

***Antrozous pallidus* -- Pallid bat**

This species generally occurs in open desert habitat at low elevations, and is more common at latitudes south of the Snake Range. It probably is most common in low to mid-elevation habitats within the Park.

Park record -- Smith Creek Cave (Ports & Bradley 1996).

***Corynorhinus townsendii* -- Townsend's big-eared bat**

The big-eared bat is a cave and mine-dwelling species that has been recorded at several sites within the Park.

Park records -- Lehman Cave (MVZ); Snake Creek Cave (Ports & Bradley 1996); Gray Cliffs area (GRBA staff).

***Eptesicus fuscus* -- Big brown bat**

Although there are no Park records for this species, it is widespread and commonly roosts in mines and buildings. It certainly occurs in the Park, probably with some frequency.

Regional records -- Swallow Canyon & Murphy Wash (Ports & Bradley 1996).

***Euderma maculatum* -- Spotted bat**

This distinctive species was reportedly observed in a cave in the Gray Cliffs area along lower Baker Creek (GRBA staff communication 2000). Although relatively uncommon, it is widespread throughout the region.

Park record -- Gray Cliffs area (GRBA staff, visual observation).

***Lasiurus noctivagans* -- Silver-haired bat**

This widespread, migratory species has been recorded from sites along the western slope of the south Snake Range. It almost certainly occurs within the Park.

Regional records -- Swallow Canyon & Murphy Wash (Ports & Bradley 1996).

***Lasiurus blossevillei* -- Western red bat**

Although there are no records of this migratory species from the Park region, it has been found in southern and western Nevada (Hall 1946; BCI 2004) and may be a rare visitor in the Park.

Regional records -- none

***Lasiurus cinereus* -- Hoary bat**

This species has been recorded at only one locality in the Park region. Nonetheless, it has a broad elevational and latitudinal range and probably occurs within the Park as an uncommon seasonal migrant.

Regional record -- Swallow Canyon (Ports & Bradley 1996).

Appendix 7: (continued).

***Myotis californicus* -- California myotis**

This relatively uncommon species has been reported from a single locality within the Park.

Park record -- Snake Creek Cave (Ports & Bradley 1996).

***Myotis ciliolabrum* -- Western small-footed myotis**

This species is one of the most common and widespread myotis in the western US. It probably occurs throughout the Park.

Park records -- Lehman Cave (MVZ); Snake Creek Cave (Ports & Bradley 1996).

***Myotis evotis* -- Long-eared myotis**

The long-eared myotis is one of the more common bats found in mid- and high elevation habitat. It probably occurs throughout the Park.

Park records -- Baker Creek (MVZ); Snake Creek Cave (Ports & Bradley 1996).

***Myotis lucifugus* -- Little brown bat**

There are no regional records of this species, but it is widespread throughout the intermountain west and likely occur in the Park region.

Regional records -- none

***Myotis thysanodes* -- Fringed myotis**

Although there are no records of this uncommon species from the Park region, it is relatively widespread throughout Nevada (BCI 2004) and probably occurs within the Park region.

Regional records -- none

***Myotis volans* -- Long-legged myotis**

This species occurs over a broad elevational range. A large number of records from localities within and surrounding the Park suggest that it is fairly common.

Park records -- Baker Creek (MVZ); Lehman Cave (MVZ); Stella Lake (MVZ); Snake Creek Cave (Ports & Bradley 1996).

***Myotis yumanensis* -- Yuma myotis**

There are no records of this bat from the Park region. Although uncommon, it is widespread in Nevada (BCI 2004) and may occur rarely within the Park.

Regional records -- none

***Pipistrellus hesperus* -- Western pipistrelle**

This bat is most commonly found in low elevation desert, and is most common at latitudes further south of the Snake Range. Although there are no records from within the Park, the species has been taken at the mouth of Swallow Canyon on the western slope of the Snake Range (Ports and Bradley 1996). It probably is an uncommon species at low elevations within the Park.

Regional record -- Swallow Canyon

Family Molossidae

***Nyctinomops macrotis* -- Big free-tailed bat**

There are no records of this species from the Park region. However, scattered records from eastern Nevada and southwestern Utah (Hall 1981; BCI 2004) suggest that the species may occur rarely in the Park.

Regional records -- none

Appendix 7: (continued).

Tadarida brasiliensis -- Mexican free-tailed bat

Although there are no records of this species from within the Park, large numbers of this species have been reported from Rose Guano Cave located on the west slope of the south Snake Range west of the Park boundary. They undoubtedly forage within the Park.

Regional records -- Rose Guano Cave (UMNH); Murphy Wash (Ports & Bradley 1996).

Order Carnivora

Family Canidae

***Canis latrans* -- Coyote**

Coyotes are widespread and occur across a broad habitat spectrum. They probably are most abundant at low- to mid-elevation habitats. Although there is only one vouchered record for this species, there are numerous observation and sign records from the Park region (Appendix 6). Coyote scat collected at 7260 feet in Snake Creek Canyon contained remains of *Sylvilagus*, a primary food resource for this species.

Historical record -- Pole Canyon, W slope Snake Range (1 MVZ).

Recent record -- Snake Creek Canyon, 7260 ft. (sign).

Canis lupus -- Gray Wolf

There are no historical records of wolves from the immediate Park region. Hall (1946) listed a MVZ specimen from Elko County as the only known vouchered record for Nevada (specimen at MVZ), but reported other unvouchered records including one from White Pine County. It is certain that wolves formerly occurred in the Park region but were exterminated early in the 20th century. Given the fact that wolves have been reintroduced into the Rocky Mountain region and are spreading, their reappearance in the Park is possible although highly unlikely.

***Urocyon cinereoargenteus* -- Gray Fox**

In 2000 we observed a gray fox along the lower portion of Baker Creek where they are apparently common (J. Tuttle personal communication 2000). There are numerous reports from the Park region (Appendix 6). In 2001 a specimen was salvaged north of Stella Lake and deposited at UMNH as a voucher record for this species. Gray fox prefer brushy or rocky habitat and probably are most common at low- to mid-elevations in within the Park.

Historical records -- Lexington Creek, 6700 ft. (1 MVZ); Mouth of Snake Creek (1 MVZ).

Recent records -- Near Baker, 6050 ft. (sightings); Baker Creek, 7100 ft. (sightings); 0.4 mi. N Stella Lake, 10533 ft. (1 UMNH).

***Vulpes velox* -- Kit (Swift) Fox**

Although no specimens are known from the south Snake Range region, there are early sight records of kit fox in both the Spring and Snake valleys (Hall 1946), and multiple reports of recent sightings from the Park region, mainly at lower elevations (Appendix 6). The species is probably fairly common in (but restricted to) low elevation desert shrub habitat mainly outside of the Park boundaries.

Historical records -- none.

Recent records -- multiple sightings.

Vulpes vulpes -- Red Fox

Red fox sightings have been reported in the region (Appendix 6), but there are no confirmed records from within Park boundaries. Apparently, red foxes once were raised commercially on lower Strawberry Creek (J. Tuttle personal communication 2000). This, plus a few early historical records from the central Great Basin (Hall 1946) have lead to speculation that this species might have been introduced into the Park region. However, prehistoric cave deposits at Lehman Cave (Ziegler 1964) and in Snake Valley (Heaton 1990) containing red fox indicates a much longer existence in the region than previously thought.

Appendix 7: (continued).

Historical records -- none.

Recent records -- sightings in Snake Valley.

Family Procyonidae

***Bassariscus astutus* -- Ringtail**

There are no early historical records of ringtails from the south Snake Range, however there are numerous reports of the species within the Park region (Appendix 6) and the skull of a specimen collected along the Baker Creek trail is in the Park collection (GRBA 2597; J. Tuttle personal communication 2000). Ringtails prefer rocky habitats at low to mid-elevations and probably occur in such habitat throughout the Park. Scats attributed to this species were collected on a rock outcrop at 7500 feet near Strawberry Creek and contained seeds and insect chitin typical of this omnivore's diet.

Historical records -- none.

Recent records -- Lehman Caves area (sightings); Osceola Ditch interpretive site, 8400 ft. (sightings); Strawberry Creek, 7500 ft. (sign); Upper Lehman campground, 7600 ft. (sighting); Baker Creek trail (GRBA specimen).

Procyon lotor -- Raccoon

There are no verified records of raccoon from the Park region, and there are few historic records from eastern Nevada. Historically, they appear to be absent or very rare in the interior Great Basin (Hall 1981). However, raccoons are spreading rapidly throughout much of the intermountain west and are capable of crossing intervening desert to reach isolated mountain ranges (UMNH records). Recent reports indicate they are moving into the region (Appendix 6) and it seems only a matter of time before they appear in the Park.

Family Mustelidae

Gulo luscus -- Wolverine

The inclusion of the wolverine in a list of species potentially occurring in the Park is based on a second-hand report of tracks found in snow near Wheeler Peak in the late 19th century (GRBA undated). We do not recognize this as credible evidence. The nearest verified historical records of wolverine are quite distant, from central Utah and the Sierra Nevada mountains (Hall 1981). Although this species was present prehistorically (Table 3), based on its behavior and known habitat requirements (Bianci 1994) it is unlikely that it was present in the region during historic times.

Martes americana -- Marten

There are no historical records of marten and no credible evidence that this species occurred in the Park region or anywhere in the Great Basin during historic times. A reported sighting from the Park region (Appendix 6) is undoubtedly a mis-identification (probably a long-tailed weasel). The nearest records of this species are from the Wasatch Range in Utah and Sierra Nevada region. Although remains of marten have been recovered from nearby prehistoric cave deposits (Table 3), it has been suggested that these represent the extinct noble marten (*Martes nobilis*) which survived in the region into the mid-Holocene (Grayson 1993).

***Mustela erminea* -- Ermine**

This species generally is restricted to forested habitats at mid to high elevations. None were trapped during recent surveys, although two songbird kills noted on Lehman Creek at 9900 feet were attributable to either ermine or long-tailed weasel. A weasel sighting near Lincoln Peak at 11200 feet elevation was probably this species.

Historical records -- Baker Creek, 8675 ft. (2 MVZ), 11100 ft. (1 MVZ).

Recent record -- ridge north of Lincoln Peak, 11200 ft. (sighting).

Appendix 7: (continued).

***Mustela frenata* -- Long-tailed Weasel**

Long-tailed weasels generally occur over a broader elevation range and variety of habitats than do ermine. None were recorded during recent surveys but they are probably quite common throughout the Park.

Historical records -- Baker Creek, 6600-8450 ft. (8 MVZ); Strawberry Creek, 8500 ft. (1 MVZ).

Recent records -- none.

***Mustela vison* -- Mink**

There are no historical records of this species from the Park region, the nearest being from Ruby Lake (Hall 1946). Prehistorically, this species did occur in the region (Table 3). Although mink do not now occur in the Park, there is appropriate habitat and potential prey (e.g., trout and muskrat). It is possible that they might move into the region in the future. If mink are commercially raised anywhere near the Park there is the potential for accidental introduction.

***Mephitis mephitis* -- Striped Skunk**

Although there are no museum vouchers for this species, it is reported as widespread in the Park (GRBA undated). Striped skunks are principally found in relatively moist habitat. In July 2000, one was observed foraging at night in Wheeler Peak Campground (9850 ft.). The species may become more abundant due to human activity.

Historical records -- none.

Recent record -- Wheeler Peak Campground, 9850 ft. (sighting).

***Spilogale putorius* -- Spotted Skunk**

There are no vouchered records of this species from the Park. Hall (1946) listed specimens taken from Pole Canyon on the west side of the Park and from Mt. Moriah in the north Snake Range. These records are not represented by voucher specimens at MVZ. Spotted skunks are reportedly common in woodland and montane habitat (GRBA, undated), and there have been numerous reports of this species from the Park region (Appendix 6). The number of reports and the availability of appropriate habitat suggest that this species is common at low elevations in the Park.

Historical records -- Pole Canyon, W slope Snake Range; Mt. Moriah, 6000 ft. (Hall 1946).

Recent records -- multiple sightings.

***Taxidea taxus* -- Badger**

Badgers occur over a broad elevation range and in a variety of habitats, but are most numerous at low elevations where they are the principal predators of ground squirrels and other burrowing rodents. There are several reported sightings from the Park region (Appendix 6). We saw extensive badger diggings in desert shrub habitat at the Park administrative site near Baker and on the bajada east of the Park boundary.

Historical record -- Lehman Creek, 8100 ft. (1 MVZ).

Recent records -- GRBA administrative site NW of Baker, 5340 ft. (sign); 1.6 km N 3 km E Lehman Caves, 6150 ft. (sign); multiple sightings.

Family Felidae

***Puma concolor* -- Mountain Lion**

In addition to historical museum records, there are many recent reports (sightings and sign) of mountain lion within the Park (Appendix 6). Scats obtained at low- to mid-elevation sites all contained bone fragments and ungulate hair (presumably deer). The Park probably supports a relatively large resident population. Relative abundance of both deer and mountain lions may have been influenced by grazing practices (Berger and Wehausen 1991).

Historical records -- 1 mi. SW head of Choke Cherry Creek (1 MVZ), South end Snake Range (1 MVZ), "Wheeler Range" (2 MVZ).

Appendix 7: (continued).

Recent records -- Baker Creek, 7080 ft. (sign); Snake Creek, 7260 ft. (sign); Strawberry Creek, 7500 ft. (sign); multiple sightings.

***Lynx rufus* -- Bobcat**

There are numerous reports of this species from the Park region (Appendix 6). In 2000, tracks attributable to bobcat were seen at 7550 feet along Baker Creek and tracks have been documented during recent predator surveys by Park staff (GRBA 2003). The species is probably widespread in the Park, particularly in rocky areas at low- to mid-elevations.

Historic records -- Mouth of Snake Creek (1 MVZ); Pole Canyon, Spring Valley (1 MVZ).

Recent records -- Baker Creek, 7500 ft. (sign).

Order Lagomophya

Family Leporidae

Brachylagus idahoensis -- Pygmy Rabbit

This species, which is endemic to the Great Basin, is restricted to areas dominated by big sagebrush. However, its local distribution and/or abundance is apparently quite spotty. Within the Park region, the nearest verified record is from the Spring Valley SW of Osceola. A record cited by Hall (1946) from Baker Creek was based on a sighting only. During recent surveys, small rabbits observed in sagebrush habitat on the eastern margin of the Park might have included pygmy rabbits, but were most likely young *Sylvilagus nuttalli* with which they are easily confused. A survey by the Nevada Division of Wildlife reported this species from in or near the Park based on visual observation of animals and sign (burrow and scat). In the absence of voucher specimens, we consider these records inconclusive, and likely mis-identifications. Nevertheless, occurrence of this species at low- to mid-elevation sites dominated by big sagebrush is certainly possible.

Historical records -- Spring Valley, 6100 ft. (1 MVZ); Baker Creek, 6500 ft. (Hall 1946, sighting).

Recent records -- none.

Sylvilagus audubonii -- Desert Cottontail

The desert cottontail is restricted to low elevations and may be most common in low elevation riparian habitats. There are no museum voucher records from within the Park or immediate vicinity, but this species has been documented at sites in the northern Snake Valley east of Mt. Moriah. Occurrence at some low elevation sites in the Park is possible but unlikely.

Historical records -- 2 mi. E Smith Creek Cave, 5600 ft. (2 MVZ); 4 mi. E Smith Creek Cave (1 MVZ).

Recent records -- none.

Sylvilagus nuttalli -- Mountain Cottontail

This species may occur in a wide variety of habitats over a broad elevation range from sagebrush flats to subalpine coniferous forest. Historical and recent observations indicate that they are common in the Park, particularly at low to mid elevations (Fig. 2).

Historical records -- Lehman Creek, 7200 ft. (1 MVZ), 8300 ft. (1 MVZ); Baker Creek, 8500 ft. (1 MVZ); Snake Creek, 8500 ft. (1 MVZ).

Recent records -- 0.5 mi. W Baker, 5430 ft. (1 UMNH); 2.8 km N 3.8 km W Lehman Caves Visitors Center, 8500 ft. (1 FMNH).

Lepus americanus -- Snowshoe Hare

There are no historical records for snowshoe hare anywhere in the interior Great Basin, the nearest verified records being from the Wasatch and Sierra Nevada ranges (Hall 1981). The species has been reported from a prehistoric cave site in Snake Valley (Table 3) but there is no reason to suspect that it has been present in the region during the historic period.

Appendix 7: (continued).

***Lepus californicus* -- Black-tailed Jackrabbit**

Although there are no museum voucher records for this species from the GRBA area, black-tailed jackrabbits are common and easily observed in open desert and woodland habitats at low- to mid-elevations. During our recent surveys, they were commonly sighted between 6150 feet (in desert shrub habitat) to above 8000 feet (in mixed juniper and mountain mahogany woodland). At least occasionally jackrabbits occur at much higher elevations. In June 2003 an individual was observed crossing a snowfield near tree line in the vicinity of Baker Lake.

Historical records -- none.

Recent records -- 1.6 km S 3.0 km E Lehman Caves Visitors Center, 6150 ft. (sighting); 0.5 km N, 1 km E Lehman Caves Visitors Center, 6575 ft. (sighting); 2.8 km N 3.8 km W Lehman Caves Visitors Center, 8500 ft. (sighting); near north fork Baker Creek, 10600 ft. (sighting).

***Lepus townsendii* -- White-tailed Jackrabbit**

Based on its presence in the nearby White Pine Mountains, this species has been listed as potentially occurring within the Park (GRBA undated). Heaton (1990) erroneously reported that the species presently occurs in the Snake Range. There is no evidence of its historical occurrence in the Park. Although this species has been reported in regional prehistoric cave faunas (Table 2), the positive identification of jackrabbit species from isolated skeletal elements is highly uncertain (Grayson 1987).

Family Ochotonidae

***Ochotona princeps* -- Pika**

There is ample evidence that pikas occurred in the Park region prehistorically (Table 3), and that they were broadly distributed throughout the Great Basin well into the Holocene (Grayson 1993). The nearest historical records are from the Ruby and White Pine mountains (Lawlor 1998). Because pikas are diurnal and highly vocal, their presence (or absence) is easily documented and there is no doubt that this species no longer occurs in the Park despite an abundance of what appears to be suitable high elevation habitat. Exactly when pikas disappeared is an open question, but presumably it was during the mid-Holocene when conditions were much drier than at present. Local extinction of pikas elsewhere in the Great Basin has been documented during recent historical times (Beaver et al. 2003) which suggests that their distribution is highly labile.

Order Rodentia

Family Sciuridae

***Tamias dorsalis* -- Cliff Chipmunk**

The cliff chipmunk generally occurs in areas of rock outcrops and cliffs, principally in piñon-juniper habitat at low- to mid-elevations (Fig. 2). Although there are relatively few specimen records, suitable habitat within the Park is extensive and the species appears to be widespread and locally abundant at some sites (Appendix 5).

Historical records -- Sacramento Pass, 6700 ft. (1 UMNH); 0.5 mi. S Lehman Cave, 7200 ft. (1 MVZ); Vicinity of Lehman Cave, 7400-7500 ft. (3 MVZ); 7500 ft. (1 MVZ).

Recent records -- Lehman Creek, 6600 ft. (1 UMNH); North Fork Big Wash, 6838 ft. (1 UMNH), 6979 ft. (1 UMNH); Baker Creek, 7080 ft. (sighting); Snake Creek Canyon, 7350 ft. (1 UMNH), 7700 ft. (1 UMNH).

***Tamias minimus* -- Least Chipmunk**

Least chipmunks have broader ecological tolerances and occur over a wider elevation gradient than do most other species of chipmunks. However, within the Park they tend to be restricted to open areas dominated by sagebrush. Near Snake Creek at 8365 feet, we found least chipmunks in an area of dense sagebrush but they were replaced by Uinta chipmunks in

Appendix 7: (continued).

immediately adjacent stands of spruce and aspen. This species appears to have declined in the years since the MVZ surveys. In 1929 least chipmunks apparently were common along lower portions of Baker Creek in areas where they were not found in our recent surveys.

Historical records -- Baker, 5300 ft. (2 MVZ); 1 mi. N Baker, 5800 ft. (4 MVZ); Baker Creek, 6600-8500 ft. (19 MVZ); Willard Creek, 7700 ft. (2 MVZ); Strawberry Creek, 8000 ft. (1 MVZ); Lehman Creek, 8200 ft. (1 MVZ); 7 mi. SW Osceola, Spring Valley, 6100 ft. (10 MVZ).

Recent records -- Snake Creek Canyon, 8365 ft. (3 UMNH); 1.9 km N 4 km W Lehman Caves Visitors Center, 9200 ft. (1 FMNH).

***Tamias umbrinus* -- Uinta Chipmunk**

The Uinta chipmunk is one of the most abundant and widespread small mammals in the Park. It has been documented in a broad range of habitats from low elevation woodland and riparian corridors to areas at or above timberline (Fig. 2). In recent surveys it was a dominant species at several trapping sites and was documented at virtually all survey localities.

Historical records -- Baker Creek, 6200 ft. (2 UMNH), vicinity Lehman Caves, 6850 ft. (1 UWBM); Baker Creek, 8000-8500 ft. (16 MVZ), 8600-9000 ft. (4 MVZ); mouth of Pole Canyon, S side Baker Creek, 7500 ft. (7 MVZ), 8000 ft. (1 MVZ); Lehman Creek, 8100 ft. (2 UMNH), 8700 ft. (1 MVZ), 9650 ft. (2 UMNH); E side Wheeler Peak, 9300 ft. (1 MVZ); vicinity of Stella Lake 10400-10500 ft. (11 MVZ); Teresa Lake, 10500 ft. (1 MVZ).

Recent records -- Lehman Caves residential area, 6800 ft. (1 UMNH); Baker Creek 7080 ft. (sighting), 7550 ft. (3 UMNH, 1 FMNH); Strawberry Creek Canyon, 7775 ft. (1 UMNH), 7920 ft. (1 UMNH); Snake Creek Canyon, 8350 ft. (3 UMNH); 1.9 km N 4 km W Lehman Caves Visitors Center, 9200 ft. (6 FMNH, 6 UMNH); Lehman Creek 9750 ft. (4 UMNH, 4 FMNH); Brown Lake, 10200 ft. (18 FMNH); 1.5 km S 0.8 km E Summit Washington Peak, 10650 ft. (10 UMNH); 0.6 km N 0.5 km W summit Pyramid Peak, 10660 ft. (1 UMNH); ridge near Washington Peak, 10800 ft. (1 UMNH); 0.3 km S 0.3 km W Stella Lake, 11100 ft. (1 UMNH, 2 FMNH).

***Ammospermophilus leucurus* -- Antelope Ground Squirrel**

This species is most abundant in open desert habitat at low elevations, primarily in areas outside of the current Park boundaries. In July 2000, specimens were trapped on the bajada east of the Park entrance and in the Snake Valley north of Baker in desert shrub communities dominated by sagebrush, greasewood, and saltbush.

Historical records -- 7 mi. SW Osceola, Spring Valley, 6275 ft. (2 MVZ); Baker Creek, 6900-7000 ft. (2 MVZ); 1 mi. E Lehman Cave, 7000 ft. (1 MVZ).

Recent records -- 2.7 km N, 0.9 km W Baker, 5275 ft. (1 FMNH, 2 UMNH); 1.6 km S 3 km E Lehman Caves Visitors Center, 6150 ft. (1 FMNH).

***Spermophilus lateralis* -- Golden-mantled Ground Squirrel**

This species has a relatively broad elevation range (Fig. 2) and may occur in a wide variety of habitats. In recent surveys it was encountered only at sites above 10000 feet. Several individuals were sighted at or above timberline and one was seen at the very summit of Wheeler Peak, the highest point in the Park. This species appears to have declined in abundance at mid- and high elevations. In the 1920's it was present along the Lehman and Baker creek drainages in areas where it was not encountered during our recent surveys. It also is surprising that we did not encounter it near Park campgrounds where it often becomes habituated. This species prefers open coniferous forest but they avoid dense timber, and may decline under conditions of increasing tree density that have resulted from fire suppression (Yensen & Sherman 2003).

Historical records -- Willard Creek, 7000-7700 ft. (5 MVZ); Lehman Creek, 8200 ft. (1 MVZ); Baker Creek, 8400-8675 ft. (9 MVZ); 1/2 mi E Stella Lake, 10400 ft. (4 MVZ); Stella Lake, 10750 ft. (1 UMNH, 5 MVZ); 3/4 mi. N Stella Lake, 11200 ft. (1 MVZ).

Recent records -- 0.2 km N 0.3 km E Stella Lake, 10200 ft. (1 UMNH); vicinity of Brown Lake, 10200 ft. (sighting); ridge near Mount Washington, 10700 ft. (sighting); 0.3 km S 0.3 km W Stella Lake, 11100 ft. (2 UMNH); Wheeler Peak Summit, 13063 ft. (sighting).

Appendix 7: (continued).

***Spermophilus mollis* -- Piute Ground Squirrel**

The Piute (formerly Townsend's) ground squirrel occurs in low elevation desert shrub communities that mainly lie outside of the current Park boundaries. This species aestivates-hibernates for 8 months and is normally active above ground only during late winter and early spring. We did not capture this species during our surveys because they were conducted during summer months when these squirrels are in aestivation. However, their characteristic burrow systems were seen at sites east of the Park boundary and at the GRBA administrative site north of Baker (in the general area where a specimen was collected in the past).

Historical records -- 1 mi. N Baker, 5220 ft. (1 MVZ); Spring Valley, 7 mi. SW Osceola, 6100 ft. (1 MVZ).

Recent record -- GRBA administrative site NW of Baker, 5340 ft. (sign).

***Spermophilus variegatus* -- Rock Squirrel**

The rock squirrel is most abundant in rocky habitat at mid-elevations. However, it has a relatively broad elevation distribution in the Park (Fig. 2) as is the case on several isolated mountain ranges of the interior Great Basin (Rickart 2001). During our recent surveys one specimen was trapped in a rock outcrop in piñon-juniper habitat along Baker Creek at 7080 feet. A road-killed animal (not saved) was found near Upper Lehman campground at 7600 feet. Other individuals were sighted on rock outcrops at mid-elevations (up to 9200 ft.) in areas dominated by juniper, mountain mahogany, or manzanita.

Historical records -- Baker Creek, 7300 - 8450 ft. (5 MVZ); Willard Creek, 7700 ft. (5 MVZ); Snake Creek, 8400 ft. (1 MVZ).

Recent records -- Baker Creek, 7080 ft. (1 FMNH); Upper Lehman campground, 7600 ft. (road kill); Snake Creek Canyon, 7800 ft. (sighting); 1.9 km N, 4 km W Lehman Caves Visitors Center, 9200 ft. (sighting).

***Marmota flaviventris* -- Yellow-bellied Marmot**

Most Park records of marmots are from the Baker Creek drainage. The only historical record (based on sign only) is from 1/2 mi. N of Treasury Lake at 12200 ft. (Hall 1946). This probably refers to a point somewhere on Baker Peak north of Treasury Lake, a small pond located immediately east of Baker Lake (GNIS gazetteer). In recent years, marmots are commonly seen at mid-elevations along portions of Baker Creek and in 2004, a road-killed animal was recovered in this area. Although reported to occur in the lower Lehman Creek drainage (J. Sirotnak personal communication 2000), a recent survey failed to locate marmots along that drainage (GRBA 2003). Some reported sightings of marmots elsewhere may actually be of rock squirrels which are more common and widely distributed within the Park. The presence of marmots at what appear to be sub-optimal mid-elevation sites and their apparent absence from high elevation rocky outcrops and meadows is puzzling.

Historical record -- 1/2 mi. N Treasury Lake (= Treasury Lake), 12200 ft. (Hall 1946, sign only).

Recent records -- Baker Creek, 7000 ft. (1 UMNH); 7500-8500 ft. (sightings).

Family Heteromyidae

***Chaetodipus formosus* -- Long-tailed Pocket Mouse**

This species has been historically documented from the northern Snake Valley east of Mt. Moriah where a few specimens were collected in early June 1937. There are no historical records from the south Snake Range or adjacent areas in the Spring or Snake valleys within the Park region. Long-tailed pocket mice prefer areas of rocky soil or rock outcrops at low- to mid-elevations. In our surveys, extensive trapping in what appeared to be suitable habitat failed to capture this species. However, since there is an abundance of such habitat we believe its occurrence within the Park is possible.

Historical records -- near Smith Creek Cave, Mt. Moriah, 5800 ft. (3 MVZ); 2 mi. W Smith Creek Cave, Mt. Moriah, 6100 ft. (2 MVZ).

Recent records -- none.

Appendix 7: (continued).

Perognathus longimembris -- Little Pocket Mouse

The little pocket mouse is generally found in low elevation desert shrub habitat and may be restricted to areas outside Park boundaries. In July 2000 one animal was trapped at 5275 feet elevation in an area of sandy soil supporting a mix of sagebrush, greasewood, saltbush north of Baker. Specimens in the collection of the Nevada State Museum were taken at or near this site in 1968. These are the only records of this species from the southern Snake Valley. This species is restricted to low elevation habitat and prefers areas with relatively deep, sandy soils. Occurrence at some low elevation sites in the Park is possible, but unlikely.

Historical record -- 1 mi NE Baker (2 NSMC).

Recent record -- 2.7 km N, 0.9 km W Baker, 5275 ft. (1 FMNH).

Perognathus parvus -- Great Basin Pocket Mouse

The Great Basin pocket mouse occurs over a relatively broad elevation range (Fig. 2) and can be found in a wide variety of habitats. In our recent surveys, this species was found in valley floor and bajada shrub communities, piñon-juniper woodland, and in sagebrush at nearly 8000 feet elevation.

Historical records -- 1 mi. NE Baker (1 NSMC); Spring Valley, 7 mi. SW Osceola, 6100 & 6275 ft. (3 MVZ); 2 mi. SE Lehman Cave, 6700 ft. (3 MVZ); Lehman Cave, 6850 ft. (1 UWBM); Willard Creek, 7150-8300 ft. (10 MVZ); Mouth of Pole Canyon 7200 ft. (1 MVZ); Baker Creek, 7200-8000 ft. (11 MVZ).

Recent records -- 2.7 km N, 0.9 km W Baker, 5275 ft. (1 FMNH); 1.6 km N, 3.0 km E Lehman Caves Visitors Center, 6150 ft. (5 FMNH, 7 UMNH); Snake Creek Canyon, 6305 ft. (1 UMNH), 7700 ft. (1 UMNH); 0.5 km N, 1 km E Lehman Caves Visitors Center, 6580 ft. (1 FMNH); vicinity of Lehman Caves, 6850 ft. (1 UWBM); Baker Creek, 7000 ft. (1 UMNH); South Fork Big Wash, 7010 ft. (1 UMNH); Strawberry Canyon, 7950 ft. (1 UMNH).

Dipodomys microps -- Chisel-toothed Kangaroo Rat

The chisel-toothed kangaroo rat is restricted to the Great Basin. It occurs in areas dominated by saltbush and greasewood, and is dependant on the succulent leaves of these and other shrubs as a source of food and water. In recent surveys, it was a relatively common capture in desert shrub communities at 5275 and 6150 ft. (Tables 1 and 2) and it was trapped at the Park administrative site NW of Baker in 2003. Its occurrence elsewhere in the Park at low elevations is possible, but unlikely.

Historical records -- 1 mi. N Baker, 5220 ft. (15 MVZ); near Baker (1 NSMC); 7 mi. SW Osceola, Spring Valley, 6100 ft. (9 MVZ).

Recent records -- 2.7 km N, 0.9 km W Baker, 5275 ft. (4 FMNH, 3 UMNH); GRBA administrative site NW of Baker, 5340 ft. (1 UMNH); 1.6 km N, 3.0 km E Lehman Caves Visitors Center, 6150 ft. (1 FMNH, 3 UMNH).

Dipodomys ordii -- Ord's Kangaroo Rat

Ord's kangaroo rat is generally most common and abundant in areas with deep, sandy soil such as sand dunes habitats. In July 2000, it was recorded in a desert shrub community north of Baker where it occurred along with *D. microps*. Specimens at the Nevada State Museum collected in 1968 probably were taken at or near this site. A specimen from the vicinity of Lehman Caves in the collection at University of Washington is the only record that falls within Park boundaries. Because appropriate habitat is limited, this species is probably uncommon in the Park.

Historical records -- near Baker (2 NSMC); vicinity of Lehman Caves, 6850 ft (1 UWBM).

Recent records -- 2.7 km N, 0.9 km W Baker, 5275 ft. (2 FMNH, 2 UMNH).

Appendix 7: (continued).

Microdipodops megacephalus -- Dark Kangaroo Mouse

This species is endemic to the Great Basin region where it is restricted to low elevation playa habitat, preferring areas with gravelly, coarse soils. Although there are historic regional records from Spring Valley, we believe it is very unlikely that this species occurs anywhere within the Park given the absence of suitable habitat.

Historical records -- Spring Valley, 7 mi. SW Osceola, 6275 ft. (24 MVZ).

Recent records -- none.

Family Geomyidae

Thomomys bottae -- Valley Pocket Gopher

The valley pocket gopher mostly occurs in areas with fairly deep soils at relatively low elevations. In the Snake Range, and some other interior mountains of the Great Basin, this species is also found in high elevation habitat typically occupied by the northern pocket gopher (*T. talpoides*) which is absent locally (Hall 1946, Rickart 2001). Accordingly, the elevation distribution within the Park is quite broad (Fig. 2), though the species is most abundant at lower elevations.

Historical Records -- Baker Creek 6600-6700 ft. (7 MVZ), 8400-8500 ft. (2 MVZ); Willard Creek, 7150-7400 ft. (7MVZ); Lehman Creek, 8400 ft. (1 MVZ); Head of Shingle Creek, 10000 ft. (2 MVZ); Stella Lake, 10500 ft. (1 MVZ).

Recent records -- Snake Creek Canyon, 8350 ft. (3 UMNH); Baker Creek, 8500 ft. (sign); Wheeler Peak Campground, 9850 ft. (sign).

Thomomys talpoides -- Northern Pocket Gopher

Based on its presence in the nearby Schell Creek and White Pine mountains, this species has been listed as potentially occurring within the Park (GRBA undated). Although pocket gophers have been reported from prehistoric cave deposits, including those from Lehman Cave (Table 3), identification of these remains as *T. talpoides* is questioned. Clearly, this species is not currently found in the Park although there is ample suitable habitat. Its absence from the Snake Range and from other mountains in the region that currently support *T. bottae* apparently reflects lack of colonization in the past rather than local extinction (Hall 1946, Rickart 2001).

Family Castoridae

Castor canadensis -- Beaver

Although there are no vouchered records from the Snake Range, there is no doubt that beaver are native to the Park. They may have been exterminated in the mistaken belief that this would increase local availability of water (J. Sirotnak personal communication 2000) as this is known to have occurred elsewhere in the Nevada (Hall 1946). In any event, they apparently disappeared prior to the MVZ fieldwork in 1929 since they were not mentioned in those surveys (Hall 1946). We found very old sign (terraces and gnawed stumps) along Baker Creek in an area with mature aspen which might be century old (8-12 inch diameter) and old beaver sign has also been reported from Lehman and Shingle creek drainages. In 2003, beaver were observed in Strawberry Creek near the Park boundary (Appendix 6).

Historical records -- Old sign documented in Strawberry and Baker creek drainages.

Recent records -- Strawberry Creek, 1/4 mi. above Park boundary [ca. 6850 ft] (sightings).

Family Muridae

Reithrodontomys megalotis -- Western Harvest Mouse

Harvest mice occur in grassy habitat at low- or mid-elevations and are usually most abundant in areas near water. In our recent surveys, they were relatively common in grass or grass-sedge meadows near springs or seeps at elevations between 6580 and 8000 ft. elevation. Specimens were also taken on the Park administrative site NW of Baker and east of the Park boundary in a

Appendix 7: (continued).

bajada shrub community with extensive cheat grass. This last locality suggests that harvest mice may spread into areas that are invaded by non-native grasses, particularly at low elevations.

Historical records -- Baker Creek, 6600-7200 ft. (6 MVZ); Sacramento Pass, 6700 ft. (1 UMNH); Lehman Cave, 7400 ft. (1 MVZ); Willard Creek, 7700 ft. (1 MVZ).

Recent records -- GRBA administrative site NW of Baker, 5340 ft. (1 UMNH); 1.6 km N 3.0 km E Lehman Caves Visitors Center, 6150 ft. (2 UMNH); 0.5 km N 1 km E Lehman Caves Visitors Center, 6580 ft. (6 FMNH, 1 UMNH); Baker Creek, 7450 ft. (3 UMNH); Strawberry Canyon, 7950 feet (2 UMNH).

***Peromyscus crinitus* -- Canyon Mouse**

Canyon mice are restricted to rocky habitats at low to mid-elevations, occurring along the base of cliffs, on among large boulders, or on isolated rock outcrops. Although relatively widespread within the Park and common locally in appropriate habitat, they do not appear to be abundant.

Historical records -- Sacramento Pass, 6700 ft. (1 UMNH); Baker Ck, 7300-7700 ft. (5 MVZ).

Recent records -- North Fork Big Wash, 6850 - 6980 ft. (2 UMNH); Snake Creek Canyon, 7450 ft. (2 UMNH).

***Peromyscus maniculatus* -- Deer Mouse**

The ubiquitous deer mouse has been documented across all habitat types from low elevation valley bottoms to areas above timberline (Fig. 2). At most of our inventory sites this was the most abundant species present.

Historical records -- Lehman Creek, 5700-8300 ft. (2 MVZ), Baker Creek, 6600-8850 ft. (44 MVZ), 11100 ft. (2 MVZ); 2 mi. SE Lehman Cave, 6700 ft. (4 MVZ); near Lehman Caves, 6850 ft. (13 UWBM); Willard Creek, 7150-8200 ft. (4 MVZ); Lehman Cave, 7200 ft. (2 MVZ); Pole Canyon, E slope Snake Range 7250-7500 ft. (3 MVZ); vicinity of Stella Lake, 10400-10750 ft. (9 MVZ); 1 mi. N Stella Lake, 11500 ft. (1 MVZ).

Recent records -- 2.7 km N 0.9 km W Baker, 5275 ft. (1 FMNH); GRBA administrative site NW of Baker, 5340 ft. (2 UMNH); 1.6 km N 3.0 km E Lehman Caves Visitors Center, 6150 ft. (1 FMNH, 4 UMNH); Snake Creek Canyon, 6800-8365 ft. (21 UMNH); 0.5 km N 1 km E Lehman Caves Visitors Center, 6580 ft. (4 FMNH); Lehman Creek, 6600-9900 ft. (23 FMNH, 23 UMNH); Baker Creek, 6450-7550 ft. (17 FMNH, 18 UMNH); South Fork Big Wash, 7010-7075 ft. (16 UMNH); Strawberry Creek, 7500-7950 ft. (16 UMNH); 2.8 km N 3.8 km W Lehman Caves Visitors Center, 8500 ft. (10 FMNH); 1.9 km N 4 km W Lehman Caves Visitors Center, 9200 ft. (19 UMNH); Brown Lake, 10200 ft. (22 FMNH); head of Lehman Creek, 10200 ft. (2 UMNH); spring west of Lincoln Peak, 10225 ft. (2 UMNH); Spring 0.1 km N Stella Lake, 10350 ft. (1 UMNH); 1.5 km S 0.8 km E summit Washington Peak, 10605 ft. (16 UMNH); 0.6 km N 0.5 km W summit Pyramid Peak, 10660 ft. (8 UMNH); Ridge near Washington Peak, 10700-10800 ft. (24 UMNH); 0.3 km S 0.3 km W Stella Lake, 11100 ft. (7 FMNH, 5 UMNH); Ridge 0.4 km N 0.1 km W summit Lincoln Peak, 11226 ft. (3 UMNH).

***Peromyscus truei* -- Piñon Mouse**

Piñon mice are most closely associated with rocky areas in piñon and juniper woodland habitat and our recent surveys found them in such habitat at several localities between 6700 and 7700 feet elevation. However, we also found that this species has a much broader elevation range in the Park (Fig. 2). In 2003 one specimen was trapped above timberline north of Pyramid Peak at 10660 feet (Appendix 2, Fig. 11) and another was taken in a stand of bristlecone at 10700 feet near Mount Washington. These may very well represent high elevation records for this species in Nevada and they verify earlier reports of such occurrences (Hall 1946, Hoffmeister 1981). Piñon mice do not appear to be terribly abundant in such high elevation habitat. In 2000 extensive trapping in mixed bristlecone, limber pine, and spruce near Brown Lake (10200 ft) did not yield any specimens. Specimens from the Park administrative site NW of Baker at 5340 feet elevation represent new low elevation records in the Park region. The apparent expansion

Appendix 7: (continued).

of the species elevational range over the past 70 years, may (in part) reflect a recent expansion of piñon-juniper woodland in the Park.

Historical records -- Sacramento Pass, 6700 ft. (1 UMNH), near Lehman Caves, 6850 ft. (2 UWBM); Lehman Cave, 7400 ft. (1 MVZ); 1/2 mi. W Lehman Cave, 7500 ft. (2 MVZ).

Recent records -- GRBA administrative site NW of Baker, 5340 ft. (2 UMNH); Baker Creek, 6700-7000 ft. (7 FMNH; 1 UMNH); South Fork Big Wash, 7010-7075 ft. (2 UMNH); Snake Creek Canyon, 7350-7700 ft. (5 UMNH); Strawberry Creek Canyon, 7500 ft. (1 UMNH); 0.6 km N 0.5 km W summit Pyramid Peak, 10660 ft. (1 UMNH); ridge near Washington Peak, 10700 ft. (1 UMNH).

***Onychomys leucogaster* -- Northern Grasshopper Mouse**

Grasshopper mice usually are found in open desert habitat at low elevations and are relatively uncommon even in preferred habitat (Hall 1946). All of the nearest records are from areas north of Baker. In June 2003, two specimens were caught in a reptile pitfall array on the Park administrative site NW of Baker. These represent the first records of this species from the Park, but it probably occurs elsewhere at lowest elevations.

Historical records -- 1 mi. N Baker, 5220 ft. (6 MVZ, 1 UMNH); 1.8 km N, 0.6 km W Baker, 5340 ft. (5 MSB); 7 mi. SW Osceola, Spring Valley, 6275 ft. (1 MVZ).

Recent records -- GRBA administrative site NW of Baker, 5340 ft. (2 UMNH).

***Neotoma cinerea* -- Bushy-tailed Woodrat**

Bushy-tailed woodrats usually occur at mid- to high-elevations in sheltered rocky areas such as cave entrances, rock crevices, and among boulders below cliff faces. In 2000, a single specimen of this species was taken in a rock outcrop at 9200 feet elevation. We failed to find any recent evidence of woodrats at Gray Cliffs or at other sites along Baker Creek where they apparently were abundant 70 years earlier. Although the cause of this dramatic decline is unknown, it is unlikely to have resulted from habitat shifts given the fact that woodrats are largely habitat generalists.

Historical records -- Pole Canyon, S side Baker Creek, 7300-7500 ft. (8 MVZ); Baker Creek, 7200-8000 ft. (26 MVZ); Willard Creek, 7700 ft. (1 MVZ); 3/4 mi. SE Stella Lake, 10800 ft. (1 MVZ).

Recent record -- 1.9 km N 4 km W Lehman Caves Visitors Center, 9200 ft. (1 UMNH).

***Neotoma lepida* -- Desert Woodrat**

The desert woodrat occurs at low- to mid-elevations both in sheltered areas near rock outcrops and cliffs or on rocky slopes in more open desert shrub habitat. In our recent surveys, they were found in bajada shrub community east of the Park boundary at 6150 feet. The presence of many large stick nests at this site indicates that they were fairly abundant. As with the *N. cinerea*, historical records show that *N. lepida* was once common in limestone cliffs along Baker Creek where woodrats are now absent or rare.

Historical records -- 2 mi. W Baker (1 MVZ); Sacramento Pass, 6700 ft. (1 UMNH); Willard Creek, 7150 ft. (2 MVZ); Baker Creek, 6600-8500 ft. (22 MVZ).

Recent records -- 1.6 km N 3.0 km E Lehman Caves Visitors Center, 6150 ft. (1 FMNH, 1 UMNH); North Fork Big Wash, 7010 ft. (1 UMNH).

***Lemmys curtatus* -- Sagebrush Vole**

This species is restricted to sagebrush and native grassland habitat. It occurs mainly at low- to mid-elevations, but has been recorded at 10000 feet on Mt. Moriah in the north Snake Range (Hall, 1946). It was not recorded during recent surveys, and there are few historical records from the southern Snake Range. Populations apparently fluctuate, and the species may do poorly in areas heavily grazed by livestock. With the recent elimination of grazing inside the Park and with proposed management practices aimed at increasing habitat available to sage grouse (GRBA 2003), sagebrush voles may increase.

Appendix 7: (continued).

Historical records -- 2 mi. S Baker, 5500 ft. (2 MVZ); NW Sacramento Pass, 6980 ft. (1 UMNH); Baker Creek, 7200 ft. (2 MVZ).

Recent records -- none.

***Microtus longicaudus* -- Long-tailed Vole**

This species is found in a wide variety of habitats over a broad elevation gradient (Fig. 2), and is one of the most widespread species within the Park. In recent surveys it was caught in relatively dry grassy areas near the eastern Park boundary, in riparian habitat along creek drainages between 7000 and 9900 feet elevation, in wet subalpine meadows, and in areas above timberline (Appendix 2). Comparison of historical and current records suggests that this species may be expanding into lower elevations, possibly in response to the spread of exotic annual grasses.

Historical records --, Baker Creek, 8000-8675 ft. (9 MVZ), 11100 ft. (4 MVZ); Willard Creek, 8200 ft. (2 MVZ); Lehman Creek, 9650 ft. (2 UMNH); vicinity of Stella Lake, 10500-10750 ft. (3 MVZ).

Recent records -- 0.5 km N 1 km E Lehman Caves Visitors Center, 6580 ft. (4 FMNH); South Fork Big Wash, 7010 ft. (1 UMNH); Baker Creek, 7000-7550 ft. (4 UMNH); Strawberry Canyon, 7950 ft. (1 UMNH); Lehman Creek, 9750-9900 ft. (4 FMNH, 3 UMNH); Spring 0.1 km N Stella Lake, 10350 ft. (6 UMNH); 0.6 km N 0.5 km W summit Pyramid Peak, 10660 ft. (4 UMNH); 0.3 km S 0.3 km W Stella Lake, 11100 ft. (1 UMNH).

***Microtus montanus* -- Montane Vole**

Although they occur over a broad elevation range (Fig. 2), montane voles are ecologically more restricted to wet habitats than are long-tailed voles. In recent surveys they were mainly trapped in wet meadows and along stream margins.

Historical records -- 1 mi. N Baker, 5220 ft. (3 MVZ); Baker, 5300 ft. (2 MVZ); Baker Creek, 6600-8000 ft. (10 MVZ), Lehman Creek, 9650 ft. (2 UMNH); 7 mi. SW Osceola, Spring Valley, 6100 ft. (2 MVZ).

Recent records -- Lehman Creek, 7160 ft. (1 UMNH); Baker Creek, 7450 ft. (1 UMNH); Strawberry Canyon, 7950 ft. (2 UMNH); Snake Creek Canyon, 8350-8365 ft. (4 UMNH); head of Lehman Creek, 10200 ft. (1 UMNH).

***Ondatra zibethicus* -- Muskrat**

There are no voucher specimen records for this species from the Snake Range. However, muskrats have been reported in the southern Snake Valley along Big Spring Creek and in Pruess Lake (GRBA undated; J. Tuttle personal communication 2000), and they have been recently sighted on Baker Creek (Appendix 6). Although muskrats have been introduced into some Great Basin wetlands for commercial purposes (Hall 1946), they have a documented prehistoric occurrence in the nearby Snake Valley (Heaton 1990).

Historical records -- none.

Recent record - Snake Valley (sightings), Snake Creek (sightings).

***Phenacomys intermedius* -- Heather Vole**

The heather vole is not known to occur historically within the Great Basin (Hall 1981). However, it has been reported from prehistoric sites near the Park (Table 3) including Snake Creek Cave in the northern Snake Range where it has been dated from last glacial epoch (Mead et al. 1982). Heather voles are restricted to high elevation boreal forest and alpine tundra habitat, and often persist in moist pockets of habitat in alpine areas that are otherwise quite dry (Rickart, personal observation). In June 2003, we saw what we thought might have been a heather vole in the cirque NW of Pyramid Peak (Appendix 2, Fig. 11). Subsequent trapping at this site, in one of the most mesic alpine habitats in the Park, failed to document the species. Although present prehistorically, we have no doubt that it is now extinct in the Snake Range.

Appendix 7: (continued).

Synaptomys borealis -- Northern Bog-lemming

This species also has been reported from deposits at Smith Creek Cave dating from the last glacial epoch (Table 3; Mead et al. 1992). This extralimital record for the Park region is extreme, with the closest existing populations far to the north in Montana and Idaho.

Mus musculus -- House Mouse

The non-native Eurasian house mouse has been documented from Baker (MVZ records). Although we did not document this species during our extensive surveys, there is an unvouchered grid trapping record from near Lehman Caves (Appendix 6; Bryan Hamilton, pers. comm.). As a widespread human commensal, this species probably occurs inside Park buildings and adjacent disturbed habitats, but is unlikely to survive winter seasons elsewhere in the Park.

Historical record -- Baker, 5300 ft. (3 MVZ).

Recent records -- Lehman Flat, ca. 6800 ft (unvouchered record, GRBA).

Family Dipodidae

Zapus princeps -- Western Jumping Mouse

This species occurs in the Ruby and Toiyabe ranges and on that basis it has been included on the list of species that may potentially occur within the Park (GRBA undated). However, there is no evidence of historic or prehistoric occurrence anywhere in the Snake Range.

Family Erethizontidae

Erethizon dorsatum -- Porcupine

There are several historical records of porcupine from the southern Snake Range, suggesting that they were at one time common over a broad elevation gradient (Fig. 2). In our recent surveys we found no sign of this species although there are a few unverified reports from the Park region (Appendix 6). The species apparently is quite rare if not extinct within the Park. Populations have declined elsewhere within the Great Basin, in part due to local predation pressure (Sweitzer et al. 1997), but possibly as a result of an epizootic disease or some other factor that would account for a region-wide decline.

Historical records -- Snake Creek, 8400 ft. (1 MVZ); Baker Creek, 7300-8500 ft. (4 MVZ); Lehman Creek, 8000-8300 ft. (2 MVZ); Treasury Lake (= Treasure Lake), 10500 ft. (4 MVZ); Stella Lake, 10600 ft. (1 MVZ);

Recent records -- reported sightings in Snake Valley.

Order Artiodactyla

Family Cervidae

Cervus elaphus -- Wapiti

European-Americans presumably extirpated wapiti shortly after settlement in the region. Animals from the Yellowstone region were introduced into the Schell Creek Range during the 1930s and have subsequently expanded into the Snake Range. There is now a sizable resident herd in the northern portion of the Park (GRBA 2003).

Historical record -- Red Canyon, north of Wheeler Peak (1859 sighting, reported by Hall 1946).

Recent record -- Strawberry Creek Canyon, 7950 ft. (sighting).

Odocoileus hemionus -- Mule Deer

Currently, mule deer are abundant within the Park occurring over a broad elevation gradient from below 7000 feet near the Park entrance to above timberline at ca. 12000 feet. It has been argued that both regional deer and mountain lion populations have increased dramatically as a

Appendix 7: (continued).

result of habitat changes following the introduction of non-native livestock (Berger and Wehausen 1991).

Historical records -- Lehman Creek, 8800 ft. (1 MVZ); Baker Creek, 9000 ft. (1 MVZ).

Recent records -- sightings throughout the Park (6150 - ca. 12000 ft).

Family Antilocapridae

***Antilocapra americana* -- Pronghorn**

Pronghorn are most abundant in open habitats and are common at low elevations, mainly below the current Park boundaries. Although there are no voucher specimen records from within the Park, they undoubtedly occur in low elevations. During recent surveys they were regularly seen on the bajada along the highway between Baker and the Park entrance and at lower elevations in Snake Valley north of Baker.

Historical records -- east side of Mt. Moriah; west side of Mt. Moriah, south end Spring Valley (Hall 1946, sightings).

Recent records -- 2.7 km N 0.9 km W Baker, 5275 ft. (salvaged skull); 1.6 km S 3.0 km E Lehman Caves Visitors Center, 6150 ft. (sightings).

Family Bovidae

***Ovis canadensis* -- Bighorn Sheep**

The native population of bighorn sheep probably disappeared shortly after the arrival of settlers in the region if not before. The only old records consist of salvaged skulls or skull fragments, some of which may be prehistoric. Bighorn have been reintroduced into the Snake Range but are not common within the Park. In August 2003 we observed one individual (apparently a young male) south of Mount Washington.

Historical records -- Baker Creek, 9000 and 12400 ft. (3 MVZ, salvaged); 1/4 mi. SW Stella Lake, 11800 ft. (1 MVZ, salvaged).

Recent record -- south of Mount Washington, 10700 ft. (sighting).

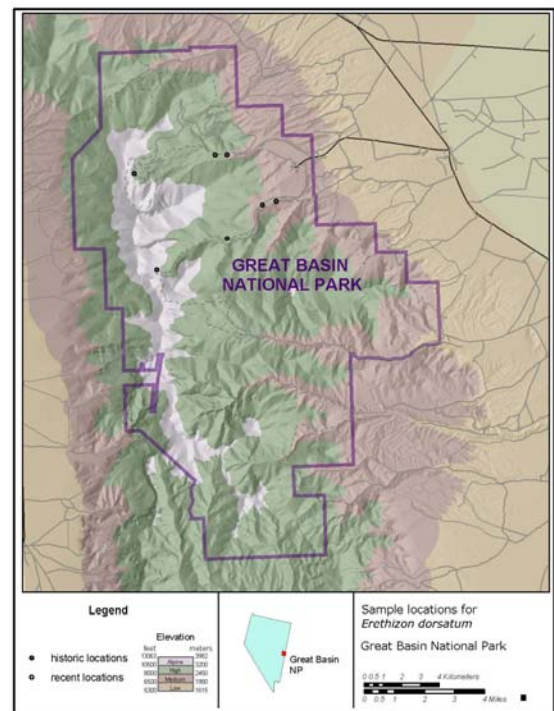
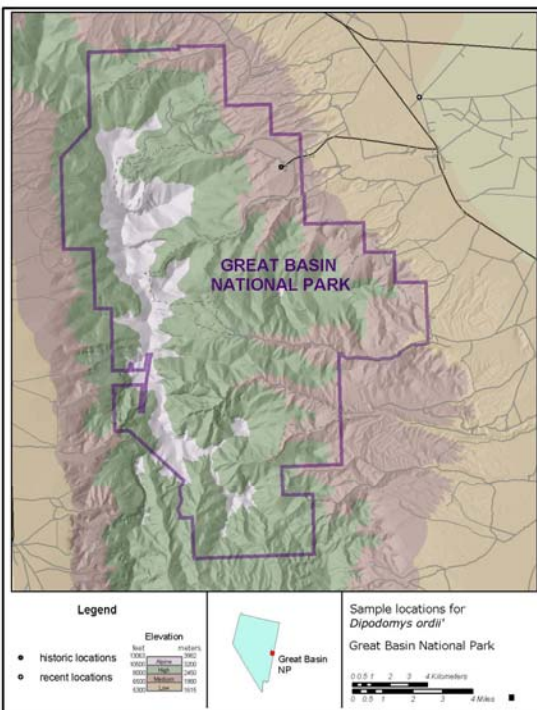
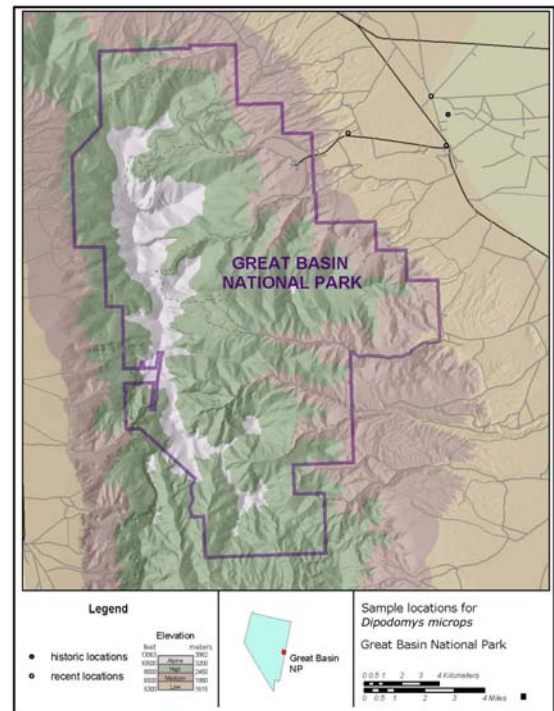
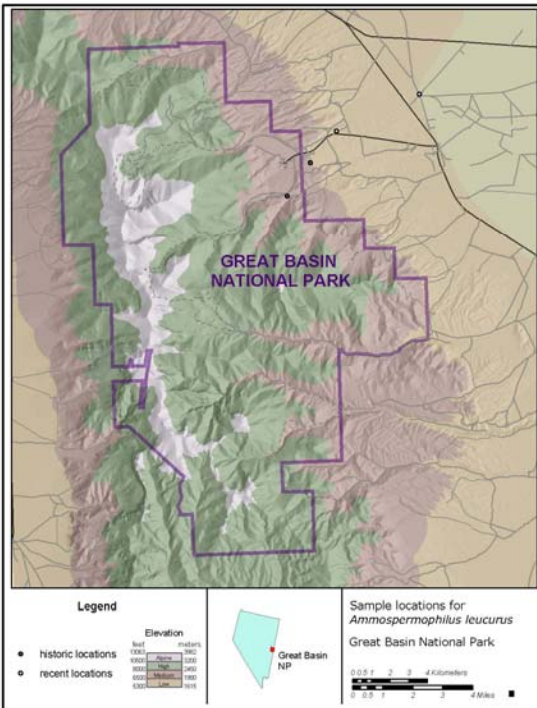
Appendix 8. Revised list of mammals from the Great Basin National Park region (including species of potential occurrence).

			GRBA record	Park region record	GRBA Voucher	Source(s)	Comments
Common name							
Order Insectivora							
Family Soricidae							
Sorex	merriami	Merriam's shrew	no	yes	no	MVZ collection	Probably rare in low-mid elevation sage habitat
Sorex	palustris	Water shrew	yes		yes	MVZ & FMNH collections	uncommon, restricted to riparian habitat
Sorex	tenellus	Inyo shrew	yes		yes	UMNH collection	uncommon or rare, possibly restricted to rocky habitat
Sorex	vagrans	Vagrant shrew	yes		yes	MVZ & UMNH collections	locally common, mainly wet habitats
Order Chiroptera							
Family Molossidae							
Nyctinomops	macrotis	Big free-tailed bat	no	no	no	Hall 1981; BCI 2004	isolated records from eastern NV & western UT
Tadarida	brasiliensis	Mexican free-tailed bat	no	yes	no	UMNH collection; Ports & Bradley (1996)	Rose Guano Cave & Murphy Wash, west & south of Park
Family Vespertilionidae							
Antrozous	pallidus	Pallid bat	yes		no	Ports & Bradley (1996)	Snake Creek Cave
Corynorhinus	townsendii	Townsend's big-eared bat	yes		yes	MVZ collection; Ports & Bradley (1996)	Snake Creek Cave & Lehman Cave
Eptesicus	fuscus	Big brown bat	no	yes	no	Ports & Bradley (1996)	Swallow Canyon & Murphy Wash, west & south of Park
Euderma	maculatum	Spotted bat	yes		no	GRBA staff	cave in Gray Cliffs area (visual observation)
Lasionycteris	noctivagans	Silver-haired bat	no	yes	no	Ports & Bradley (1996)	Swallow Canyon & Murphy Wash, west & south of Park
Lasiurus	blossevillii	Western red bat	no	no	no	BCI 2004	records from southern & western NV
Lasiurus	cinerea	Hoary bat	no	yes	no	Ports & Bradley (1996)	Swallow Canyon, west of Park
Myotis	californicus	California myotis	yes		no	Ports & Bradley (1996)	Snake Creek Cave
Myotis	ciliolabrum	Small-footed myotis	yes		yes	MVZ collection; Ports & Bradley (1996)	Snake Creek Cave & Lehman Cave
Myotis	evotis	Long-eared myotis	yes		yes	MVZ collection; Ports & Bradley (1996)	Baker Creek, Snake Creek Cave
Myotis	lucifugus	Little brown bat	no	no	no	BCI 2004	widespread in Nevada
Myotis	thysanodes	Fringed myotis	no	no	no	BCI 2004	widespread in Nevada
Myotis	volans	Long-legged myotis	yes		yes	MVZ collection; Ports & Bradley (1996)	Baker Creek, Snake Creek Cave & Lehman Cave
Myotis	yumanensis	Yuma myotis	no	no	no	BCI 2004	widespread in Nevada
Pipistrellus	hesperus	Western pipistrelle	no	yes	no	Ports & Bradley (1996)	Swallow Canyon, west of Park
Order Carnivora							
Family Canidae							
Canis	latrans	Coyote	yes		yes	MVZ collection; this report	probably common
Canis	lupus	Gray wolf	no		no	Hall 1946	historically extinct in region
Urocyon	cinereoargenteus	Gray fox	yes		yes	Hall 1946; UMNH collections	widesperad, most common at low elevations
Vulpes	velox	Kit fox	yes	yes	no	GRBA staff (sightings)	probably common at low elevations
Vulpes	vulpes	Red fox	no	yes	no	GRBA staff (sightings)	may be confused with other spp; possibly introduced
Family Procyonidae							
Bassariscus	astutus	Ringtail	yes		yes	GRBA collection	probably common at low elevations
Procyon	lotor	Raccoon	no	yes	no	Hall 1946, 1981; MVZ & UMNH	records from E Nevada & W Utah, may colonize
Family Mustellidae							
Mephitis	mephitis	Striped skunk	yes		no	Rickart & Heaney 2000	probably common at low elevations
Mustela	erminea	Ermine	yes		yes	MVZ collection	most common at mid-high elevations
Mustela	frenata	Long-tailed weasel	yes		yes	MVZ collection	most common at low elevations
Mustela	vison	Mink	no	yes	no	Hall 1946, 1981; MVZ collection	records from E Nevada, prehistoric occurrence, may recolonize
Spilogale	putorius	Spotted skunk	yes		no	Hall 1946; GRBA staff	probably common at low elevations
Taxidea	taxus	Badger	yes		yes	MVZ collection	most common at low elevations
Family Felidae							
Lynx	rufus	Bobcat	yes		yes	MVZ collection	probably moderately common
Puma	concolor	Mountain lion	yes		yes	MVZ collection; GRBA staff	probably moderately common
Order Lagomorpha							
Family Leporidae							
Brachylagus	idahoensis	Pygmy rabbit	no	yes	no	Hall 1946; MVZ collection	Possibly rare in low elevation sagebrush
Sylvilagus	audubonii	Desert cottontail	no	yes	no	Hall 1946; MVZ collection	Unlikely at lowest elevations
Sylvilagus	nuttallii	Mountain cottontail	yes		yes	MVZ & UMNH collections	common
Lepus	californicus	Black-tailed jackrabbit	yes		no	Rickart & Heaney 2000; this report	most common at low elevations

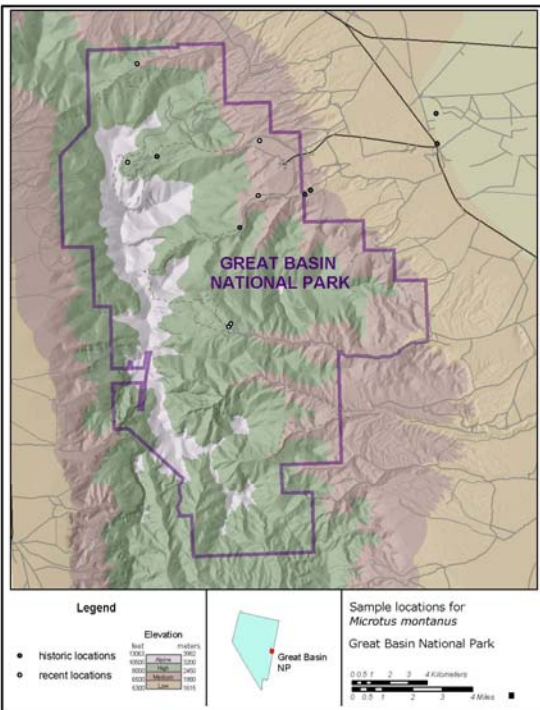
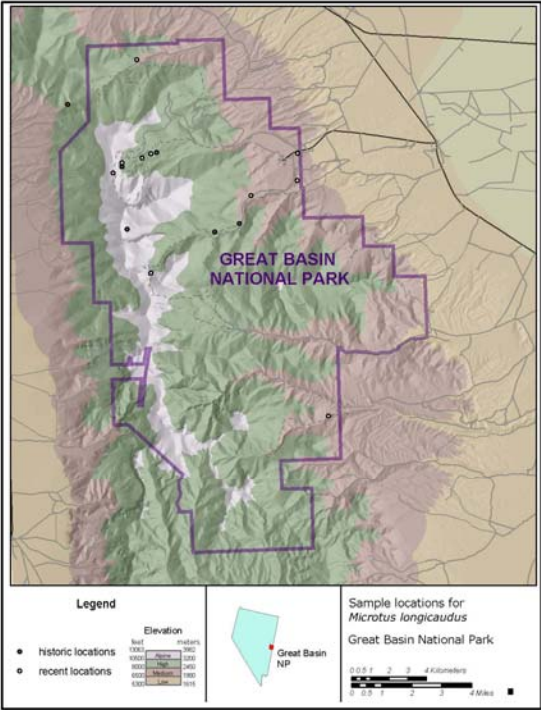
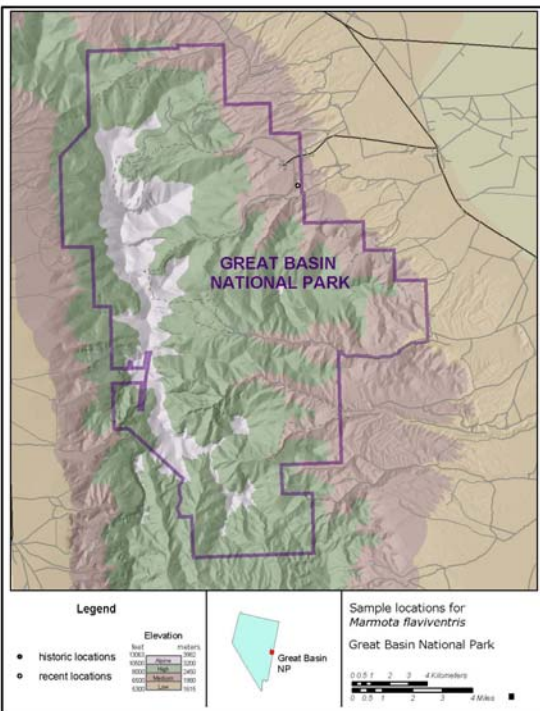
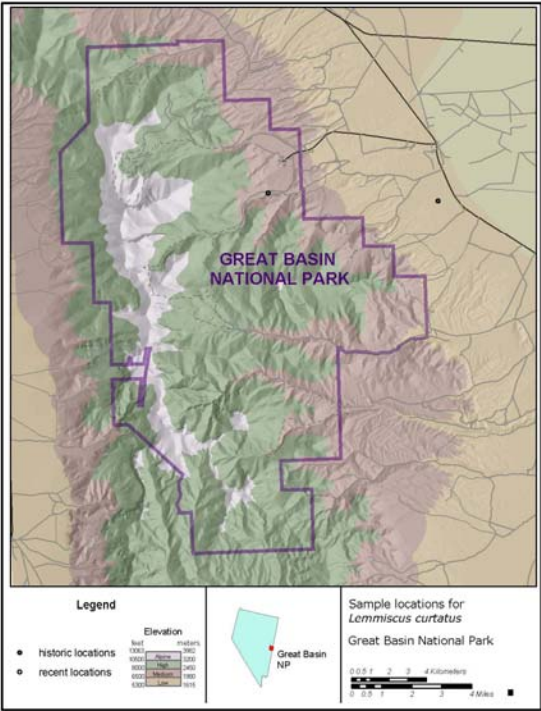
Appendix 8. continued.

			GRBA	Park	GRBA		
Common name			record	region	Voucher	Source(s)	Comments
			record	record			
Order Rodentia							
Family Sciuridae							
Tamias	dorsalis	Cliff chipmunk	yes		yes	MVZ & UMNH collections	uncommon
Tamias	minimus	Least chipmunk	yes		yes	MVZ & UMNH collections	uncommon, primarily sagebrush
Tamias	umbrinus	Uinta chipmunk	yes		yes	MVZ & UMNH collections	abundant in virtually all habitats
Ammospermophilus	leucurus	White-tailed antelope squirrel	yes		yes	MVZ & UMNH collections	uncommon at low elevations
Spermophilus	lateralis	Golden-mantled grd. squirrel	yes		yes	MVZ & UMNH collections	common at high elevations, uncommon elsewhere
Spermophilus	mollis	Piute ground squirrel	yes		no	this report; MVZ collection	present at lowest elevations
Spermophilus	variegatus	Rock squirrel	yes		yes	MVZ & UMNH collections	common at low to mid elevations
Marmota	flaviventris	Yellow-bellied marmot	yes		yes	Hall 1946; UMNH collections	common locally at mid elevations
Family Heteromyidae							
Chaetodipus	formosus	Long-tailed pocket mouse	no	yes	no	MVZ collection	Snake Valley localities, unlikely at low elevations in Park
Microdipodops	megacephalus	Dark kangaroo mouse	no	yes	no	MVZ collection	Spring Valley localities, highly unlikely in Park
Perognathus	longimembris	Little pocket mouse	no	yes	no	MVZ & FMNH collections	Snake Valley localities, unlikely at low elevations in Park
Perognathus	parvus	Great basin pocket mouse	yes		yes	MVZ & UMNH collections	locally common at low-mid elevations
Dipodomys	microps	Chisel-toothed kangaroo rat	yes		yes	UMNH collection	uncommon, lowest elevation
Dipodomys	ordii	Ord's kangaroo rat	yes		yes	UWBM collection	rare, lowest elevation
Family Geomyidae							
Thomomys	bottae	Valley pocket gopher	yes		yes	MVZ & UMNH collections	most common at low elevations
Family Castoridae							
Castor	canadensis	Beaver	yes		no	GRBA staff	historically extinct in Park, reestablished
Family Muridae							
Reithrodontomys	megalotis	Western harvest mouse	yes		yes	MVZ & UMNH collections	locally common, grassy habitat
Peromyscus	crinitus	Canyon mouse	yes		yes	MVZ & UMNH collections	uncommon, rocky habitat
Peromyscus	maniculatus	Deer mouse	yes		yes	MVZ & UMNH collections	abundant in virtually all habitats
Peromyscus	truei	Pinyon mouse	yes		yes	MVZ & UMNH collections	locally common in pinyon, rare at high elevations
Onychomys	leucogaster	Northern grasshopper mouse	yes		yes	UMNH collection	uncommon or rare at low elevations
Neotoma	cinerea	Bushy-tailed woodrat	yes		yes	MVZ & UMNH collections	locally uncommon, formerly more common
Neotoma	lepida	Desert woodrat	yes		yes	MVZ & UMNH collections	common at low elevations, formerly more common
Microtus	longicaudus	Long-tailed vole	yes		yes	MVZ & UMNH collections	common in grassy areas, less common elsewhere
Microtus	montanus	Montane vole	yes		yes	MVZ & UMNH collections	locally common, restricted to riparian areas
Lemmyscus	curtatus	Sagebrush vole	yes		yes	MVZ collection	uncommon or rare, restricted to sagebrush
Ondatra	zibethicus	Muskrat	yes		no	GRBA staff	locally restricted to aquatic habitats
Mus	musculus	House mouse	yes		no	GRBA staff; MVZ collection	non-native commensal, probably restricted to buildings and distrubed habitat
Family Erethizontidae							
Erethizon	dorsatum	Porcupine	yes		yes	MVZ collection	formerly common, now rare
Order Artiodactyla							
Family Cervidae							
Cervus	elaphus	Wapiti	yes		no	Hall 1946; this report	historically extinct, reestablished
Odocoileus	hemionus	Mule deer	yes		yes	Hall 1946; this report	common, widespread
Family Antilocapridae							
Antilocapra	americana	Pronghorn	yes		no	Hall 1946; this report	common at low elevations
Family Bovidae							
Ovis	canadensis	Bighorn sheep	yes		yes	Hall 1946; this report	historically extinct, reestablished and rare

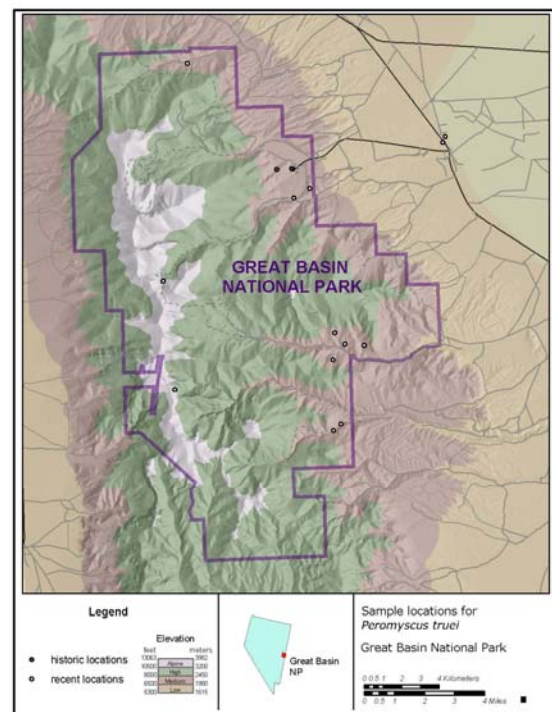
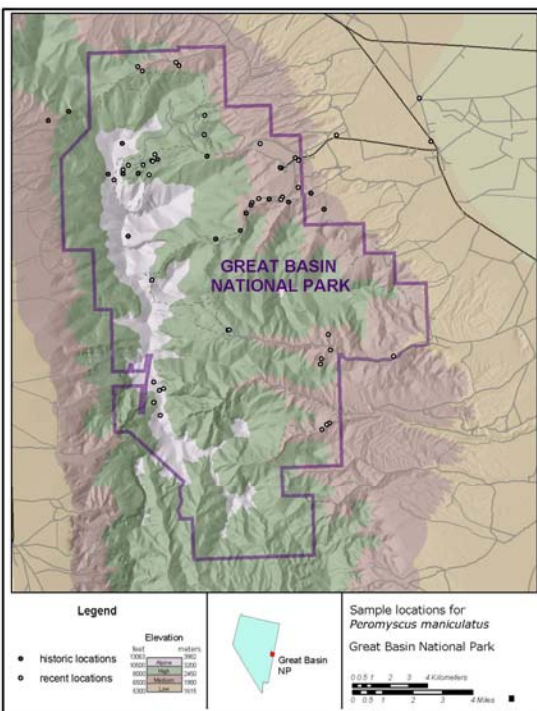
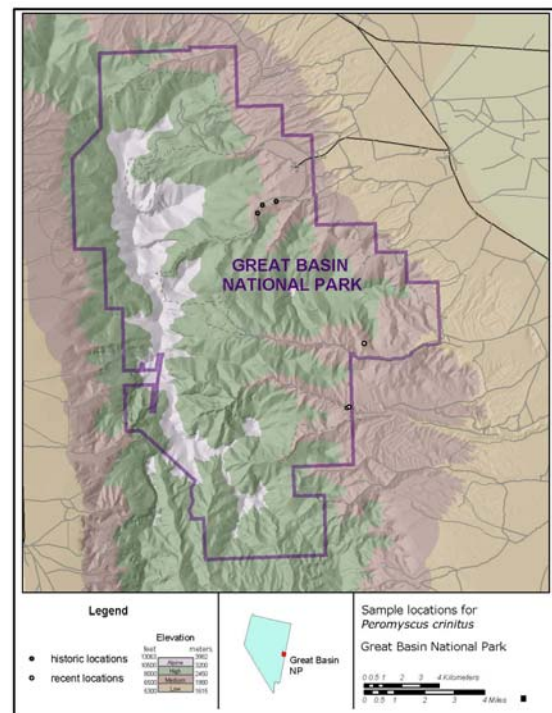
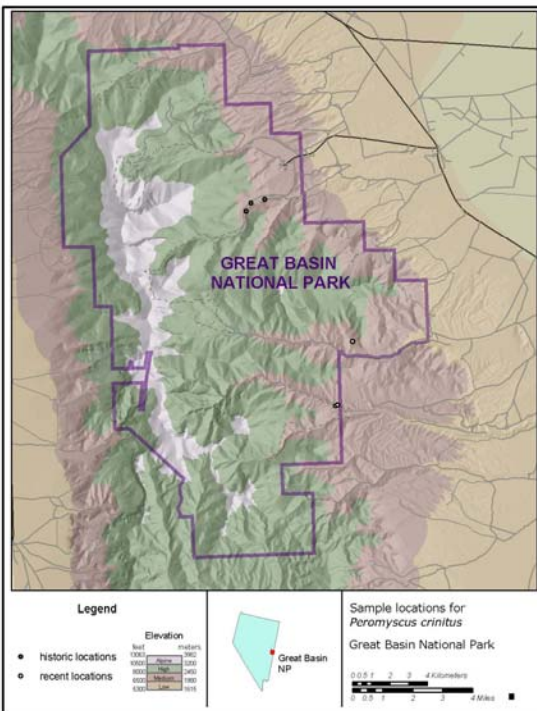
Appendix 9. Distribution maps of small Mammals in the GRBA region.



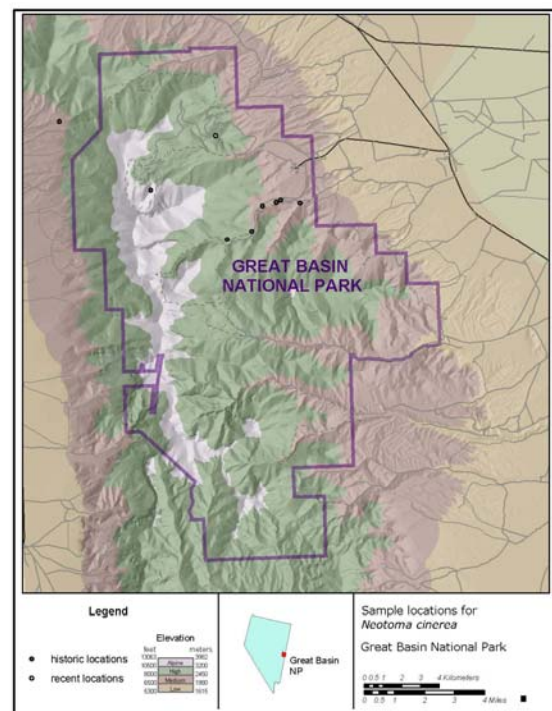
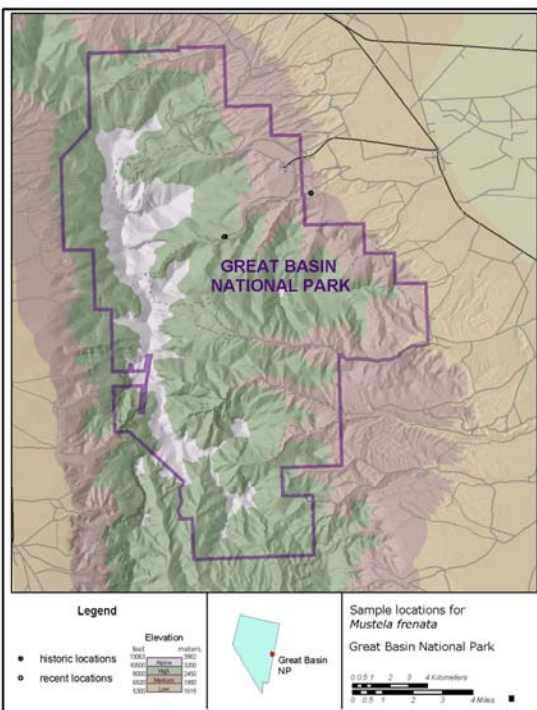
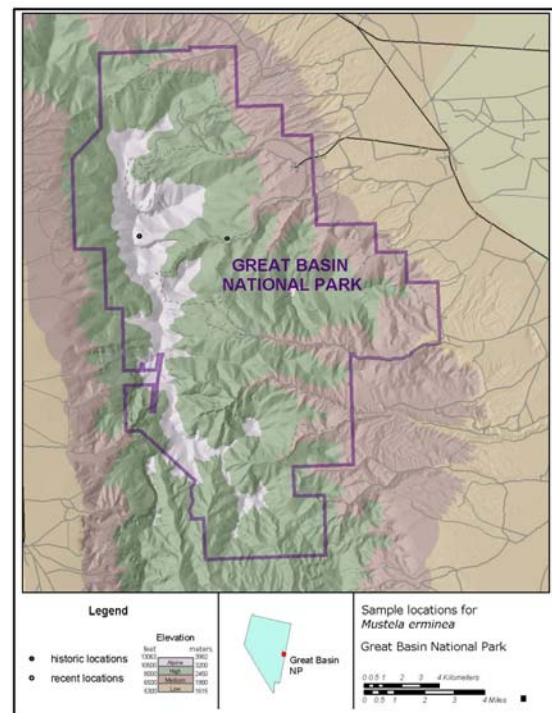
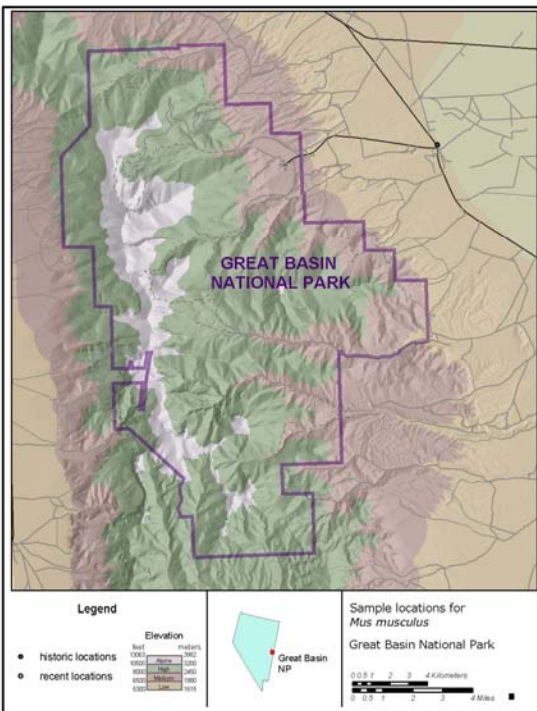
Appendix 9. (continued)



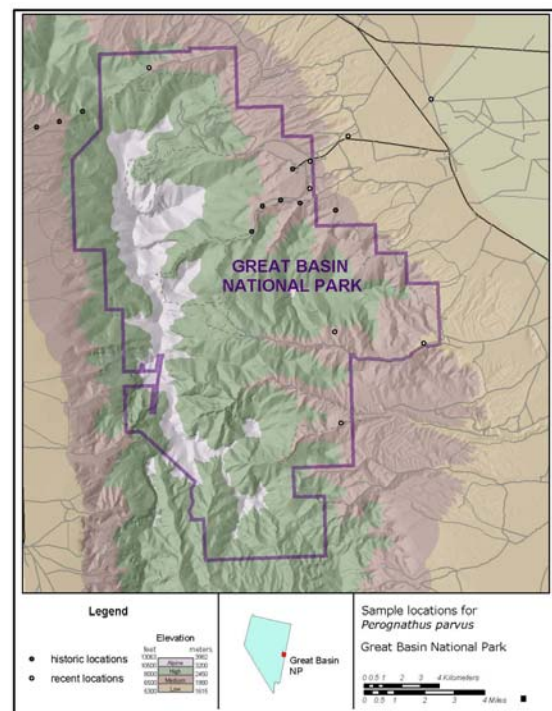
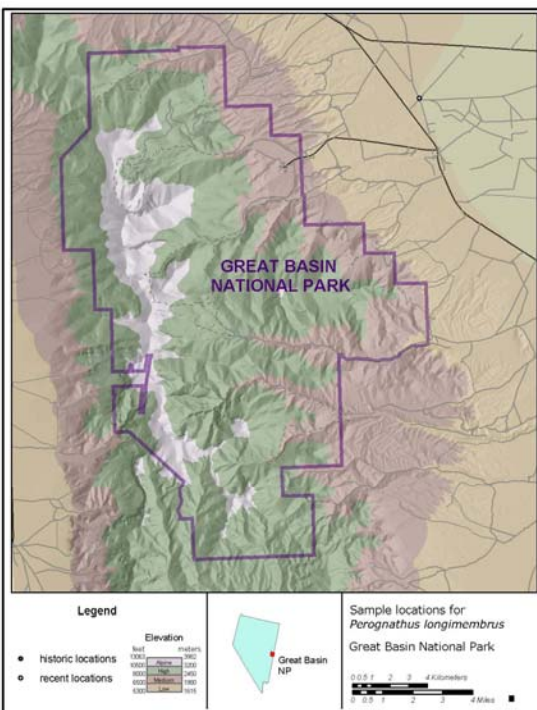
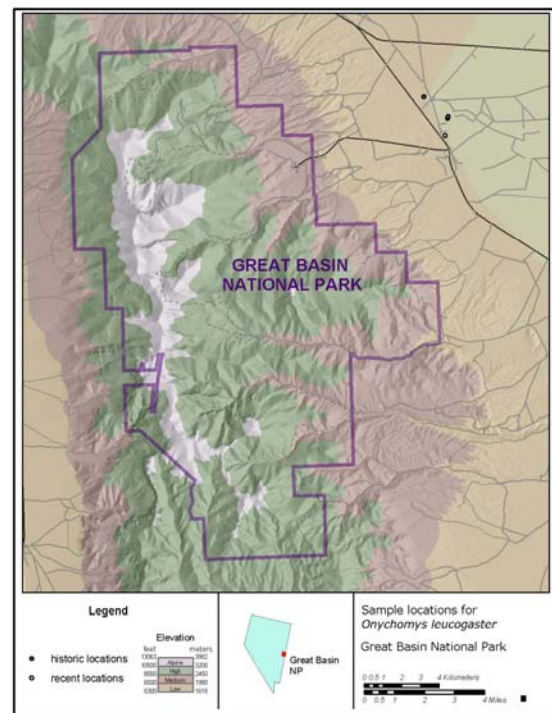
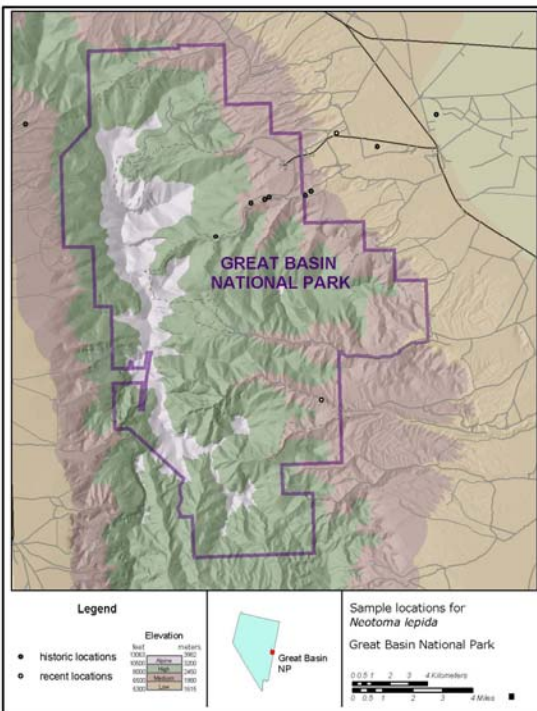
Appendix 9. (continued)



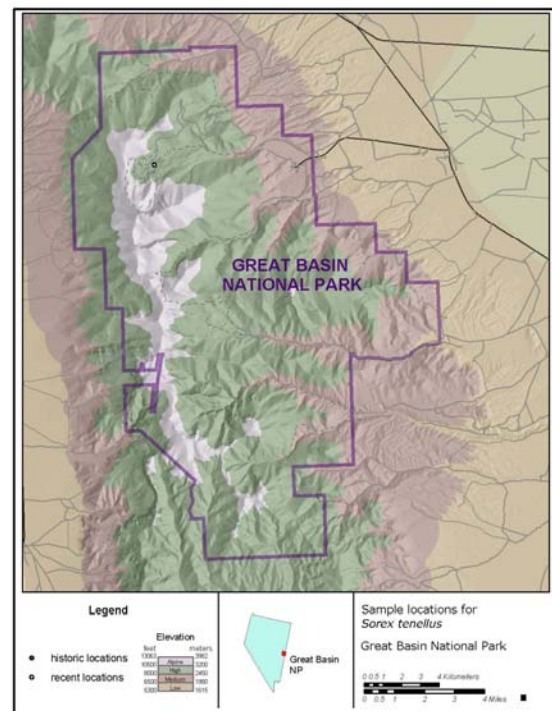
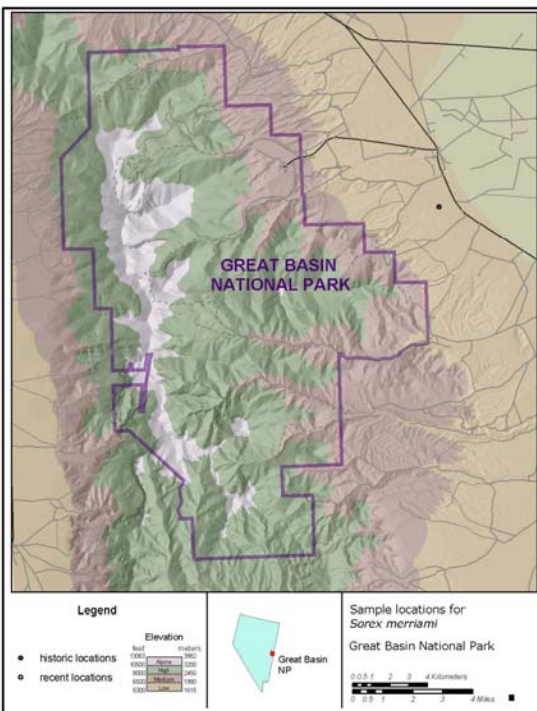
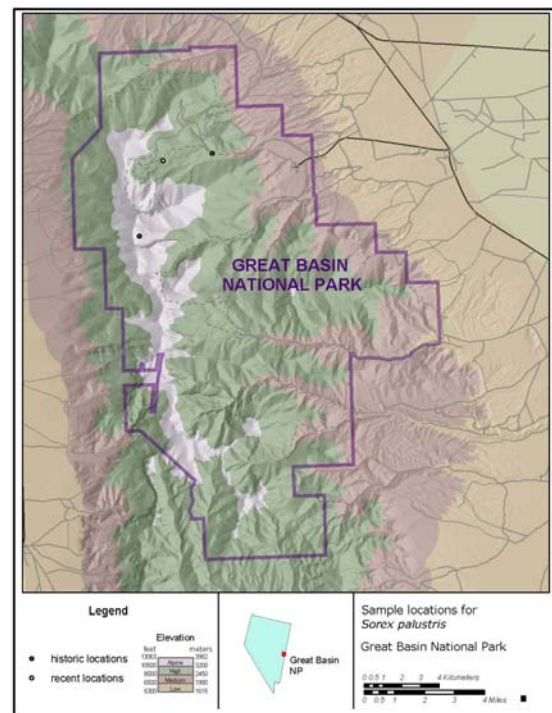
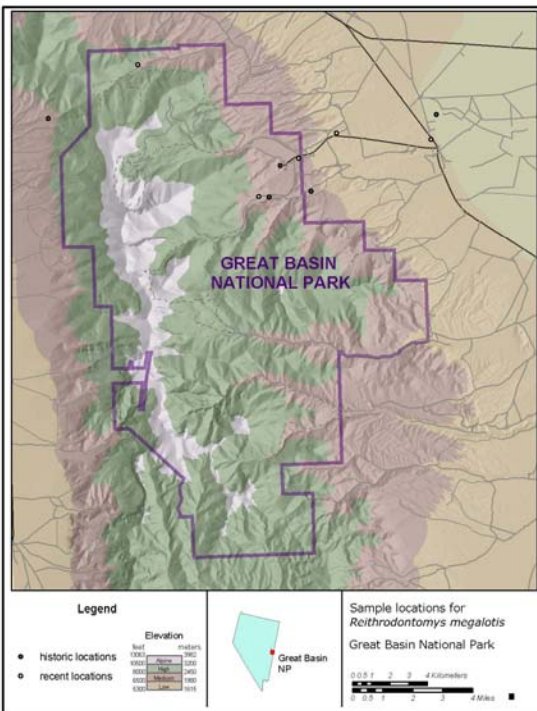
Appendix 9. (continued)



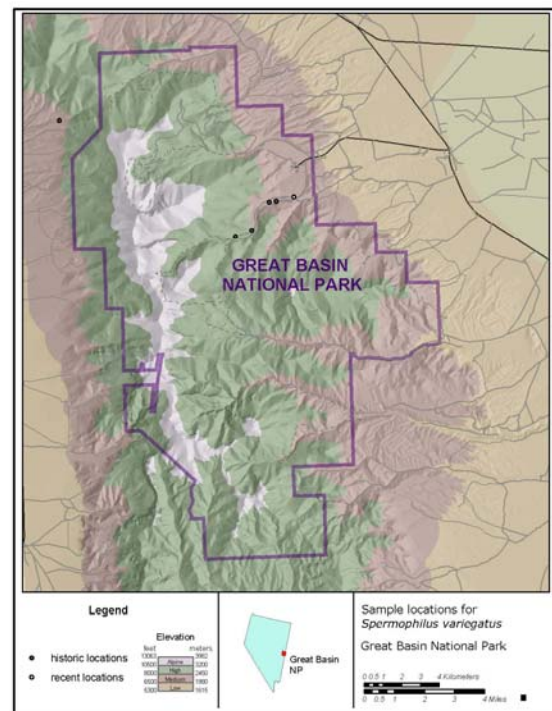
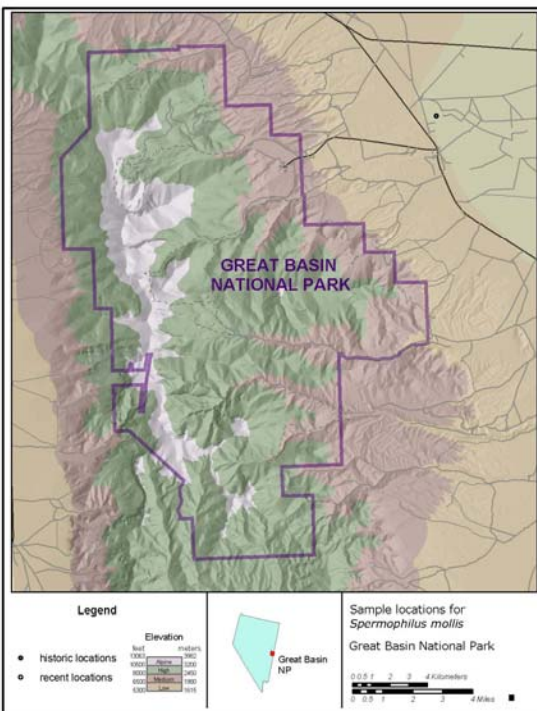
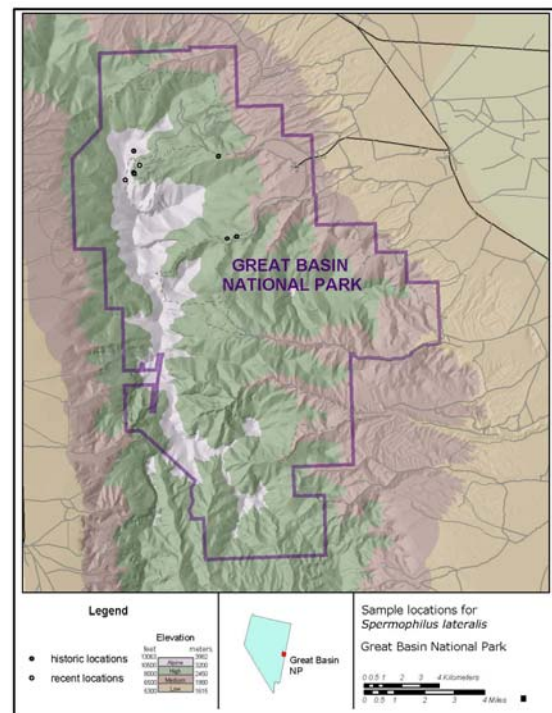
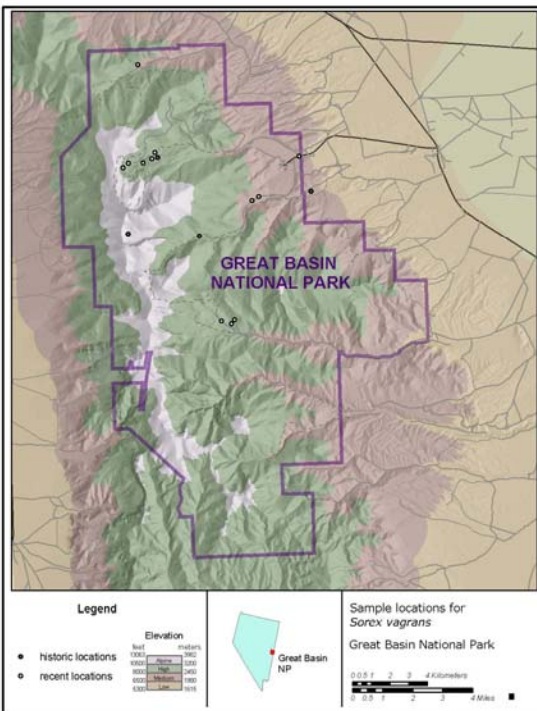
Appendix 9. (continued)



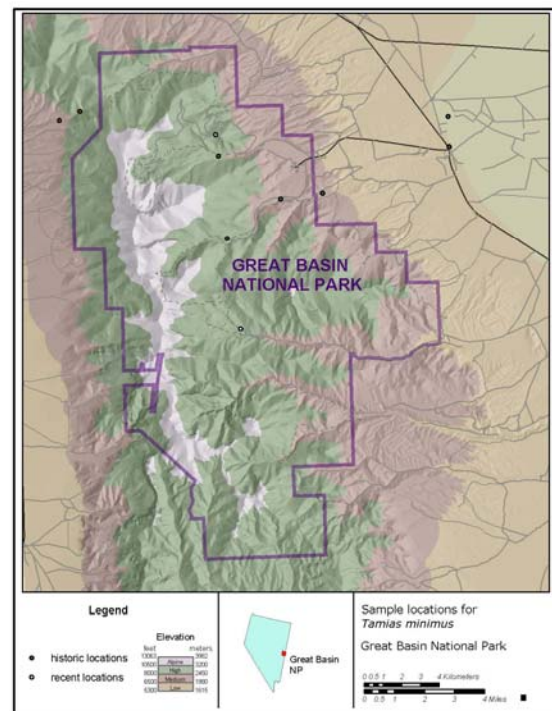
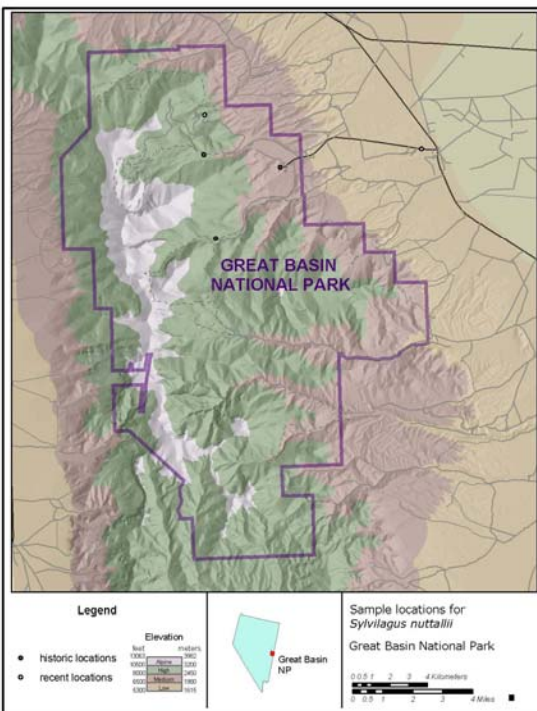
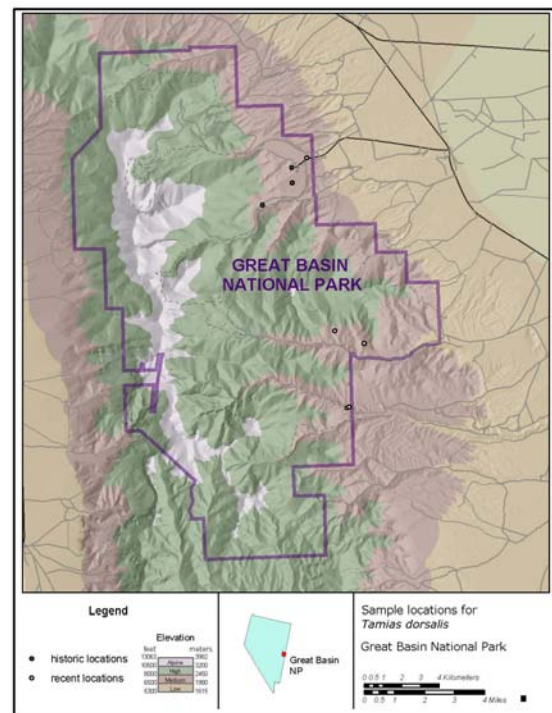
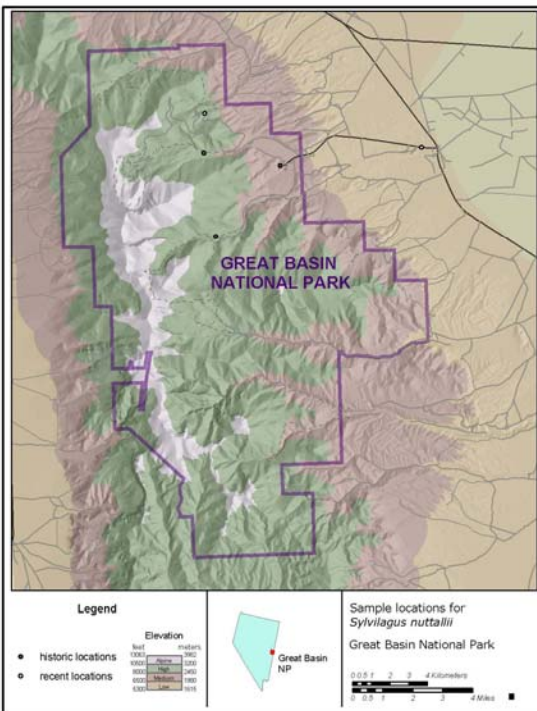
Appendix 9. (continued)



Appendix 9. (continued)



Appendix 9. (continued)



Appendix 9. (continued)

