

A Preliminary Overview of the
Southern Paiute Consortium 1995 Ethnofauna Trip
In The *Colorado River Corridor*

Trip Report of the First 1995 Southern Paiute Consortium River Trip

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Prepared for

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April 25, 1995

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This trip report is a preliminary overview of the places visited and comments made by the Southern Paiute Consortium tribal representatives during the April 1995 raft trip through 280 miles of the Colorado River. The first purpose of the trip was for Southern Paiute representatives to share their thoughts about animals living in the *Colorado River Corridor* study area. The second purpose of the trip was for Kaibab Paiute Tribal Council members to visit the study area to discuss the Southern Paiute research conducted in the Glen Canyon Environmental Studies (GCES) and future tribal activities. Finally, the trip provided an opportunity for Southern Paiute and Hualapai representatives to share their thoughts about cultural resources between National Canyon and Diamond Creek.

The raft trip began on April 5, 1995 at Lees Ferry and ended on April 17, 1995 at Pearce Ferry. The trip was divided into three sections. The first section of the trip took place from April 5 - 10 between Lees Ferry and National Canyon. The second section of the trip took place from April 10 - 15 between National Canyon and Diamond Creek. The third section of the trip took place from April 15 - 17 between Diamond Creek and Pearce Ferry. This document is designed to help tribal leaders and the Glen Canyon Environmental Studies scientists better understand what was accomplished by this trip and to prepare for the remaining FY 1995 work.

The term *Colorado River Corridor* is used to refer to the area that is covered by the **Ethnographic Resource Inventory and Assessment for Colorado River Corridor, Glen Canyon National Recreation Area, Utah and Arizona and Grand Canyon National Park, Arizona**. The study contributes to the Southern Paiute Consortium efforts to collect information and participate in decisions that influence the use, management, and monitoring of traditional cultural resources located along the 255 mile Colorado River Corridor from Glen Canyon Dam to the end of the free-flowing river at Separation Canyon. Results from past studies are available in the report, *PIAPAXA 'UIPI (BIG RIVER CANYON)*, and will soon be available in the report, *TUMPITUXWINAP (STORIED ROCKS): Southern Paiute Rock Art in the Colorado River Corridor*.

METHODOLOGY

The tribes of the Southern Paiute Consortium chose to participate in this study because their traditional areas include portions of the *Colorado River Corridor* study area. Listed from west to east these tribes are (1) the Shivwits Band of the Paiute Indian Tribe of Utah, and (2) the Kaibab Paiute Tribe. Each of the tribal governments appointed five tribal members who are knowledgeable about animals and traditional cultural properties to represent them during the April river trip (see Appendix A for a list of all participants on the river trip). In addition, a tribal photographer and a Community Health Representative participated in the first two sections of the trip, and four members of the Kaibab Paiute Tribal Council participated in the third section of the trip. Four ethnographers from the University of Arizona (UofA) and the Southern Paiute Consortium Coordinator conducted interviews and facilitated group meetings on the trip.

Four consultants and five individuals from the Cultural Resources Program represented the Hualapai Tribe on the second and third sections of the trip. A botanist, herbalist, and rock writing specialist served as additional consultants to the Hualapai Tribe.

Animals known to live within the study area were identified prior to the trip. Mammals, birds that nest within the study area, reptiles, amphibians, and fish that are common or abundant within the *Colorado River Corridor* were selected to be included on the Ethnafaunal Study List. All large mammals, any animals that are known to have been extirpated from the study area and threatened or endangered animals were added to the Study List. Invertebrates identified as particularly notable were added to the Study List. Animal occurrence and distribution were determined using *Mammals of the Grand Canyon* (Hoffmeister 1971), *Mammals of the Arizona Strip Including Grand Canyon National Monument* (Hoffmeister and Durham 1971), *Grand Canyon Birds* (Brown, Carothers and Johnson 1987), *Amphibians and Reptiles of the Grand Canyon National Park* (Miller, Young, Gatlin and Richardson 1982), "Native Fishes of the Grand Canyon Region: An Obituary?" in *Colorado River Ecology and Dam Management* (1991), *The Colorado River Through the Grand Canyon* (Carothers and Brown 1991), *The Colorado River in Grand Canyon: A Guide* (Stevens 1993), and personal communication with biologists who have worked in the study area. In addition, animals living in the study area for which Paiute names had been provided in *Puaxant T'wip: Utah Indians Comment on the Intermountain Power Project, Utah Section of Intermountain-Adelanto Bipole I Proposal* (Stoffle and Dobyns, eds. 1982), *Anthropology of the Numa* (Fowler and Fowler, eds. 1971), and *The Chemehuevis* (Laird 1976) were added to the Study List. The final list included 28 mammals, 10 reptiles, 2 amphibians, 24 birds, 10 fish, and 11 invertebrates (see Appendix B).

Photographs and/or black-and-white line drawings were collected for all the animals on the list and organized into animal reference photo notebooks. The Arizona Sonora Desert Museum in Tucson loaned color slides and allowed prints to be made of 47 of the animals on the Study List. Additional photos and sketches were obtained from field guides for mammals, birds, reptiles, and insects of the Grand Canyon and southwest. The ethnographers carried interview forms, the animal photo notebooks, and field guides to conduct interviews.

Individual Interviews

During the river trip, individual animal interviews were conducted at selected stops along the *Colorado River Corridor*. The stops were chosen to include the Marble Canyon transitional zone, Sonoran Desert, and Mojave Desert, the three major ecosystems found within the study area. Only sites on the banks of the Colorado River were visited. Southern Paiute tribal representatives were encouraged to watch for animals and signs of animal presence while riding on the rafts and when stopped on the beaches. The Southern Paiute Consortium photographer and two UofA ethnographers took pictures of the animals and the signs, whenever possible. Also, several representatives brought along their own cameras and tape recorders to record their experiences and ideas.

Along the river, the Southern Paiute consultants were interviewed individually by the trip ethnographers according to the following steps:

- * The Southern Paiute consultant was shown an animal photo notebook. The individual was asked to pick out the animals that had been sighted that he or she would like to talk about. If no new animals or animal signs had been seen since the previous interview, the consultant was asked to select an animal from the notebook that he or she would like to talk about.

- * The Southern Paiute consultant provided information about the significance of the animal in Paiute culture through a formal interview process. An ethnographer recorded each individual's observations and interpretations on an Ethnobiology-Animals Interview Form (see Appendix C). Forms were used to insure that the responses were systematically recorded from all Paiute representatives for all animals. A tape recorder was available at all times in case the representatives wished to further comment on an animal.

Group Interviews

Group interviews were conducted with Southern Paiute consultants to verify the Paiute names for animals identified on the trip, gain additional information about the animals, and gain information about Traditional Cultural Properties (TCPs). Group animal interviews were organized around the animal photos and drawings included in the animal photo notebooks. Southern Paiute consultants were shown each mammal and bird photo and asked to provide a Paiute name for the animal. Field guides were used for animals that had been identified on the trip but were not included in the animal photo notebook and to clarify whether a Southern Paiute name referred to a single species or a larger group of animals, such as mice (see Summary of Findings). Additional discussions about the animals that occurred during the group interviews were recorded.

Group interviews about TCPs were conducted at special locations. These interviews were conducted in both Paiute and English. Most of the TCP interviews were about the significance of mineral springs like the ones at Lava Falls and Pumpkin Springs. These group interviews help to evaluate the TCPs and provide information needed for their management.

Southern Paiute - Hualapai Meetings

Joint Southern Paiute-Hualapai activities occurred at five places along the Colorado River below National Canyon. Joint activities included (1) discussion of cultural traditions regarding particular places and resources in the *Colorado River Corridor*, (2) discussion of mitigation strategies for cultural resources, and (3) participation in traditional ceremonial exercises.

Policy Meetings

Four members of the Kaibab Paiute Tribal Council joined the river trip at Diamond Creek. The Hualapai Tribal Council sponsored a meal and get-together at Diamond Creek on April 15. The Vice Chairperson of the Hualapai Tribe formerly welcomed the Southern Paiute Council and expressed an interest in developing a long term relationship with them regarding cultural resources. Later, along the river, meetings were held between Kaibab Paiute Council members, two of the trip ethnographers, and the Coordinator of the Southern Paiute Consortium. Topics of these meetings include (1) summary of findings of Southern Paiute research conducted in the Glen Canyon Environmental Studies (GCES), (2) mitigation recommendations, and (3) future research and monitoring activities in the study area.

SUMMARY OF FINDINGS

The trip began on the morning of April 5, 1995 at Lees Ferry and continued without a break until the morning of April 17, 1995. Tribal representatives traveled on the Colorado River and formally visited and provided data for this study at 12 stops along its banks. Information was collected from Southern Paiute representatives through four types of activities that took place during the April river trip:

- (1) Southern Paiute consultants completed 71 individual interviews with the trip ethnographers
- (2) Southern Paiute consultants participated in three formal group interviews and several informal interviews about animals and TCPs
- (3) Southern Paiute and Hualapai representatives participated in five joint activities
- (4) Kaibab Paiute Tribal Council members participated in two policy and mitigation meetings regarding cultural resources.

Table 1 presents the day and location when Southern Paiute representatives and tribal leaders participated in work-related activities on the river trip.

Table 1. Schedule of Activities

April 5, 1995	Depart Lees Ferry	Mile 0
	Lunch	Mile 5
	Camp #1 - North Canyon	Mile 20.5
April 6, 1995	Interview Stop #1 - North Canyon	Mile 20.5
	Lunch - Redwall Cavern	Mile 33
	Camp #2 - Nankoweap Canyon	Mile 52
April 7, 1995	Interview Stop #2 - Nankoweap Canyon	Mile 52

	Lunch - Nankoweap Canyon	Mile 52
	Stop - Salt Mine	Mile 64
	Camp #3 - Rattlesnake Camp	Mile 75
April 8, 1995	Interview Stop #3 - Rattlesnake Camp	Mile 75
	Lunch - Hermit Creek	Mile 95
	Camp #4 - below Fossil Canyon	Mile 125
April 9, 1995	Lunch - below Deer Creek	Mile 136.5
	Camp #5 - National Canyon	Mile 166.5
April 10, 1995	Interview Stop #4a - National Canyon	Mile 166.5
	Lunch - National Canyon	Mile 166.5
	Camp #6 - National Canyon	Mile 166.5
	Joint Meeting #1 - National Canyon	Mile 166.5
April 11, 1995	Interview Stop #4b - National Canyon	Mile 166.5
	Lunch - National Canyon	Mile 166.5
	Camp #7 - Vulcan's Anvil	Mile 178
	Joint Meeting #2 - Vulcan's Anvil Camp	Mile 178
April 12, 1995	Joint Meeting #3 - Visit to Vulcan's Anvil	Mile 178
	Interview Stop #5 - Vulcan's Anvil Camp	Mile 178
	Stop - Prospect Canyon - Overview	Mile 179
	Lunch - above Lava Falls	Mile 179
	Camp #8 - Whitmore Wash	Mile 188
April 13, 1995	Paiute Group Interview #1 - Whitmore Wash	Mile 188
	Joint Meeting #4 - Visit to Hematite Cave	Mile 200
	Lunch - Hematite Cave	Mile 200
	Stop - Spring Canyon - Observe effects of	Mile 204
	Camp #9 - Granite Park	Mile 209
April 14, 1995	Interview Stop #6 - Granite Park	Mile 209
	Paiute Group Interview #2 - Granite Park	Mile 209
	Lunch - Granite Park	Mile 209
	Paiute Group Interview #3 - Pumpkin Springs	Mile 213
	Camp #10 - 224 Mile Canyon	Mile 224
April 15, 1995	Interview Stop #7 - 224 Mile Canyon	Mile 224
	Lunch - Diamond Creek - Hosted by Hualapai	Mile 226
	Kaibab Paiute Tribal Council Meeting #1	Mile 246
	Camp #11 - Spencer Canyon	Mile 246
April 16, 1995	Kaibab Paiute Tribal Council Meeting #2	Mile 246
	Lunch	Mile 270
	Camp #12 - Pearce Ferry	Mile 280
April 17, 1995	Take Out and Depart - Pearce Ferry	Mile 280

Table 2 presents an alphabetical list of the animals that were seen and/or for which sign, such as tracks or scat, were observed during the river trip. A more complete discussion of these animals and their signs, including the frequency and location of observations, will be included in the full ethnofauna report.

Table 2. Animals Observed on April Raft Trip

Bat		Gull
Beaver		Hummingbird
Bighorn Sheep		Kingfisher
Black Crowned Night Heron		Mule Deer
Black-Collared Lizard		Peregrine Falcon
Bobcat		Rainbow Trout
Canada Goose		Raven
Chuckwalla		Red-tailed Hawk
Coyote		Side-blotched Lizard
Ducks	primarily Mallard Ducks and one Cinnamon Teal	Spiny Lizard
Frog/Toad		Swift
Eagles - Bald and Golden		Turkey Vulture
Great Blue Heron		White Egret

A total of 71 individual formal interviews were conducted about 28 animals (see Table 3). The purpose of the formal interviews was to provide an opportunity to collect the same information from each person about specific animals. A wide range of questions were asked. These questions were adapted from an interview form piloted in an earlier study in the *Colorado River Corridor* and used by the UofA research team elsewhere in the southwest. Forty-one animals were named and discussed in the two formal group interviews that were conducted about animals (see Appendix D).

Role of Animals in Southern Paiute Culture

Southern Paiutes traditionally used and continue to use animals for food, medicinal purposes, rituals and ceremonies, clothing, tools, and other purposes. One point regularly emphasized by consultants is that when animals were/are taken for use, especially large mammals such as deer, all parts of the animal were/are used. Even in smaller animals, such as the prairie dog or mourning dove, many parts were/are used. Often where a part of the animal, such as the bones, have not traditionally been used or are not presently used, consultants offered an explanation. For example, "The bones are too small."

Southern Paiute consultants believe that the animals about which interviews were conducted are impacted by human activities when tourists disturb them or their habitats in the *Colorado River Corridor*. The most common recommendation for protecting animals is to leave

them alone. A more complete discussion of the animals, their cultural significance, and the recommendations for management will be provided in the full report.

Group interviews were conducted about mineral springs, including Pumpkin Springs, a Traditional Cultural Property (TCP) in the study area. Mineral springs have traditionally been and continue to be important sacred and healing places in Southern Paiute culture. The special significance of Pumpkin Springs and recommendations for its protection will appear in the full report.

Table 3. Animals for Which Individual Interviews Were Completed in the April 1995 Study

Common Name	Scientific Name	Paiute Name? ¹	Number of Interviews
Mammals			
Pronghorn Antelope	<i>Antilocapra americana</i>	Y	2
Bat (Western Pipistrelle)	<i>Pipistrellus hesperus</i>	Y	1
Beaver	<i>Castor canadensis</i>	Y	1
Coyote	<i>Canis latrans</i>	Y	3
Deer, Mule	<i>Odocoileus hemionus</i>	Y	9
Lion, Mountain	<i>Felis concolor</i>	Y	1
Mouse - Cactus, Canyon, or Rock Pocket	<i>Peromyscus</i> sp., <i>Perognathus</i> sp.	Y	1
Porcupine	<i>Erethizon dorsatum</i>	Y	2
Prairie Dog	<i>Cynomys gunnisoni</i>	Y	7
Rabbit, Desert Cottontail ²	<i>Sylvilagus audubonii</i>	Y	1
Rabbit, Blacktail Jack ²	<i>Lepus californicus</i>	Y	7
Sheep, Desert Bighorn	<i>Ovis canadensis</i>	Y	6
Birds			
Crane (in reference to a Great Blue Heron)	<i>Ardea herodias</i>	Y	1
Dove, Mourning	<i>Zenaida macroura</i>	Y	3
Duck, Mallard	<i>Anas platyrhynchos</i>	Y	2

Common Name	Scientific Name	Paiute Name? ¹	Number of Interviews
Eagle ³	<i>Haliaeetus leucocephalus</i> (Bald) <i>Aquila chrysaetos</i> (Golden)	Y	7
Flicker, Northern	<i>Colaptes auratus</i>	Y	1
Hawk, Red-tailed	<i>Buteo jamaicensis</i>	Y	2
Hummingbird, Black-chinned	<i>Archilochus alexandri</i>	Y	1
Owl, Great Horned	<i>Bubo virginianus</i>	Y	2
Quail, Gambel's	<i>Callipepla gambelii</i>	Y	1
Turkey, Wild	<i>Meleagris gallopavo</i>	Y	1
Wren, Rock	<i>Salpinctes obsoletus</i>	Y	1
Reptiles			
Chuckwalla	<i>Sauromalus obesus</i>	Y	1
Lizard			1
Gopher Snake	<i>Pituophis melanoleucus</i>	Y	1
Amphibians			
Frog, Leopard	<i>Rana</i> sp.		1
Fish			
Trout, Rainbow	<i>Salmo gairdneri</i>		4

¹ A complete list of Southern Paiute names for the animals will be provided in the full project report. That list is being prepared by a linguist with special training in Southern Paiute languages.

² The consultants provided separate names for Jack Rabbit and Cottontail. One individual gave separate interviews on these two animals. All other interviews on rabbits are included under Jack Rabbit.

³ Although consultants provided separate names for Bald and Golden Eagles, none gave separate interviews on these two animals, so all interviews have been grouped under one category.

PROPOSED FURTHER WORK

During the group animal interviews several Southern Paiute consultants talked about previous work they and others they have known have done regarding animals. Information about animals began to be collected from Southern Paiutes in 1870 by John Wesley Powell, continued to be collected by William Palmer in the 1890s, was collected by Omer Stewart, Isabel Kelly, and C. Hart Merriam in the 1930s, and has been a small but important part of environmental impact studies conducted since 1977 by the UofA research team. The Southern Paiute consultants requested that those studies be located and reviewed as part of this project. Therefore, an additional task for the animal study will be a comparative review of Southern Paiute animal studies. These sources of information will be used to supplement and help place into context the expressed cultural concerns of Southern Paiutes regarding animals.

Appendix A

Persons On Southern Paiute - Hualapai *Colorado River Corridor* River Trip April 5 - 17, 1995

The following is a complete list of the 33 persons who participated in the joint Southern Paiute - Hualapai Ethnographic Resource Inventory and Assessment Raft Trip in the *Colorado River Corridor*.

Kaibab Paiute Tribe

Carmen Bradley
Angie Bullets
Debbie Drye
Eileen Drye
Franklin Drye
Yolanda Hill
Lucille Jake
Vivienne Jake
Warren Mayo, Sr.
Gevene Savala
Amelia Segundo
Timothy Stanfield

Shivwits Paiute Tribe

Wallea Baker
Crissy Bullets
Marilyn Jake
Yetta Jake
Eunice Surveyor

Hualapai Tribe

Cheryle Beecher
Emmett Bender
Christine Cooney
Monza Honga
Wilford Imus (Sonny)
Loretta Jackson
Mazie Powskey
Lucille Watahomigie (Cindy)
Betty Wescogame

University of Arizona

Diane Austin
Brian Fulfrost
Carolyn Groessl
Richard Stoffle

Other Specialists

Phyllis Hogan
LaVan Martineau
Art Phillips

Appendix B

COLORADO RIVER CORRIDOR ETHNOFAUNAL STUDY LIST

MAMMALS

Ungulates and Carnivores

- M1 Pronghorn Antelope (*Antilocapra americana*)
M2 Collared Peccary (*Pecari angulatus*)
M3 Mule Deer (*Odocoileus hemionus*)
M4 Desert Bighorn Sheep (*Ovis canadensis*)
M5 Badger (*Taxidea taxus*)
M6 Coyote (*Canis latrans*)
M7 Gray Fox (*Urocyon cinereoargenteus*)
M8 Ringtail (*Bassariscus astutus*)
M9 Raccoon (*Procyon lotor*)
M10 Western Spotted Skunk (*Spilogale gracilis*)
M11 River Otter (*Lutra canadensis sonora*)
M12 Mountain Lion (*Felis concolor*)
M13 Bobcat (*Lynx rufus*)
M14 Wolf (*Canis lupus*)

Rodents and Others

- M15 Spotted Ground Squirrel (*Spermophilus pilosoma*)
M16 White-tailed Antelope Squirrel (*Ammospermophilus leucurus*)
M17 Cliff chipmunk (*Eutamias dorsalis*)
M18 Rock Pocket Mouse (*Perognathus intermedius*)
M19 Prairie Dog (*Cynomys gunnisoni*)
M20 Beaver (*Castor canadensis*)
M21 Canyon Mouse (*Peromyscus crinitus*)
M22 Cactus Mouse (*Peromyscus eremicus*)
M23 White-throated Woodrat (*Neotoma albigula*)
M24 Desert Woodrat (*Neotoma lepida*)
M25 Muskrat (*Ondatra zibethica*)

- M26 Desert Cottontail (*Sylvilagus audubonii*)
M27 Blacktail Jack Rabbit (*Lepus californicus*)
M28 Western Pipistrelle (*Pipistrellus hesperus*)

REPTILES

Lizards

- R1 Banded Gecko (*Coleonyx variegatus*)
R2 Gila Monster (*Heloderma suspectum*)
R3 Side-blotched Lizard (*Uta stansburiana*)
R4 Western Whiptail (*Cnemidophorus tigris*)
R5 Yellow-backed Spiny Lizard (*Sceloporus magister*)
R6 Chuckwalla (*Sauromalus obesus*)
R7 Black Collared Lizard (*Crotaphytus bicinctores*)

Snakes

- R8 California Kingsnake (*Lampropeltus getulus*)
R9 Grand Canyon Rattlesnake (*Crotalus viridis abyssus*)
R10 Western Diamondback Rattlesnake (*Crotalus atrox*)

AMPHIBIANS

- A1 Red-spotted Toad (*Bufo punctatus*)
A2 Leopard Frog (*Rana pipiens*)

BIRDS

- B1 Turkey Vulture (*Cathartes aura*)
- B2 Red-tailed Hawk (*Buteo jamaicensis*)
- B3 Golden Eagle (*Aquila chrysaetos*)
- B4 Bald Eagle (*Haliaeetus leucocephalus*)
- B5 Peregrine Falcon (*Falco peregrinus*)
- B6 American Kestrel (*Falco sparverius*)
- B7 Mourning Dove (*Zenaida macroura*)
- B8 White-throated Swift (*Aeronautes saxatalis*)
- B9 Black-chinned Hummingbird (*Archilochus alexandri*)
- B10 Common Raven (*Corvus corax*)
- B11 Cactus Wren (*Campylorhynchus brunneicapillus*)
- B12 Indigo Bunting (*Passerina cyanea*)
- B13 House Finch (*Carpodacus mexicanus*)
- B14 Black-throated Sparrow (*Amphispiza bilineata*)
- B15 Northern Mockingbird (*Mimus polyglottos*)
- B16 Ring-billed Gull (*Larus delawarensis*)
- B17 Scrub Jay (*Aphelocoma coerulescens*)
- B18 Lesser Nighthawk (*Chordeiles acutipennis*)
- B19 Great Horned Owl (*Bubo virginianus*)
- B20 Burrowing Owl (*Athene cunicularia*)
- B21 Loggerhead Shrike (*Lanius ludovicianus*)
- B22 Wild Turkey (*Meleagris gallopavo*)
- B23 Gambel's Quail (*Callipepla gambelii*)
- B24 Southwest Willow Flycatcher (*Empidonax traillii*)

FISH

- F1 Humpback Chub (*Gila cypha*)
- F2 Bonytail Chub (*Gila elegans*)
- F3 Colorado Squawfish (*Ptychocheilus lucius*)
- F4 Razorback Sucker (*Xyrauchen texanus*)
- F5 Rainbow Trout (*Salmo gairdneri*)
- F6 Carp (*Cyprinodon carpio*)

- F7 Speckled Dace (*Rhinichthys osculus*)
- F8 Brook Trout (*Salvelinus fontinalis*)
- F9 Sucker (*Catostomus*)
- F10 Fathead Minnow (*Pimephales promelas*)

INVERTEBRATES

- I1 Tarantula
- I2 Black-widow Spider
- I3 Straw-colored Bark Scorpion (*Centruroides exilicauda*)
- I4 Velvet Ant
- I5 Desert millipede (*Orthoporus sp.*)
- I6 Harvester Ant
- I7 Fly
- I8 Stink Beetle
- I9 Louse
- I10 Kanab Amber Snail
- I11 Mosquito

Appendix C

ETHNOFAUNA INTERVIEW FORM

ETHNIC GROUP USE HISTORY: PAST AND PRESENT

7. Did (respondent's ethnic group) traditionally use this animal? (Circle)

1 = Yes 2 = No 8 = DK 9 = NR

8. What was this animal used for? (CIRCLE BELOW)

1 = Food 2 = Medicine 3 = Ritual / Ceremony 4 = Clothing 5 = Tools (Bone) 6 = Other (SPECIFY) 8 = DK 9 = NR

9. Who used this animal most often?

1 = Men 2 = Women 3 = Both 8 = DK 9 = NR

10. Do (respondent's ethnic group) currently use this animal?

1 = Yes 2 = No 8 = DK 9 = NR

11. (If yes) What is this animal used for? CIRCLE BELOW

1 = Food 2 = Medicine 3 = Ritual / Ceremony 4 = Clothing 5 = Tools (Bone) 6 = Other (SPECIFY) 8 = DK 9 = NR

12. Who uses this animal most often?

1 = Men 2 = Women 3 = Both 8 = DK 9 = NR

PERSONAL USE HISTORY: PAST AND PRESENT

13. Did you (or your family) traditionally use this animal? 1 = Yes 2 = No 8 = DK 9 = NR

14. (If yes) What was this animal used for? CIRCLE BELOW

1 = Food 2 = Medicine 3 = Ritual / Ceremony 4 = Clothing 5 = Tools(Bone) 6 = Other (SPECIFY) 8 = DK 9 = NR

15. Do you (or your family) currently use this animal? 1 = Yes 2 = No 8 = DK 9 = NR

16. (If yes) What is this animal used for? CIRCLE BELOW

1 = Food 2 = Medicine 3 = Ritual / Ceremony 4 = Clothing 5 = Tools 6 = Other 8 = DK 9 = NR

OTHER SIGNIFICANCE:

17a. Are there Paiute stories and legends associated with this animal? 1 = Yes 2 = No 8 = DK 9 = NR

17b. Are any of those stories and legends associated with this animal being here in the Grand Canyon? 1 = Yes 2 = No 8 = DK 9 = NR

CULTURAL TRANSMISSION

18. From whom did you learn about this animal? CIRCLE BELOW

- 1 = Mother 2 = Father 3 = Grandmother 4 = Grandfather 5 = Other Relative (SPECIFY) 6 = Friend, Neighbor, Other Person
- 7 = Other (Signify) 8 = DK 9 = NR

19. Have you ever taught anyone about this particular animal?

- 1 = Yes 2 = No 8 = DK 9 = NR

20. (IF YES) Who have you taught?

- 1 = Children 2 = Grandchildren 3 = Other Relative (Specify) 4 = Friend, Neighbor 5 = So. Paiute Youth 6 = DK 7 = NR

21. What about this animal were you teaching to that person? (CIRCLE BELOW)

- 1 = Food 2 = Medicine 3 = Ritual / Ceremony 4 = Clothing 5 = Tools 6 = Stories/Legends 7 = Other 8 = DK 9 = NR

22. Are you currently teaching anyone about this particular animal?

- 1 = Yes 2 = No 8 = DK 9 = NR

23. (IF YES TO #22) Whom are you teaching?

- 1 = Children 2 = Grandchildren 3 = Other Relative (Specify) 4 = Friend, Neighbor 5 = So. Paiute Youth 6 = DK 7 = NR

24. What about this animal are you teaching/will you teach to that person? (CIRCLE BELOW)

- 1 = Food 2 = Medicine 3 = Ritual / Ceremony 4 = Clothing 5 = Tools 6 = Stories/Legends 7 = Other 8 = DK 9 = NR

26. When do you gather this animal?

27a. How do you harvest the animal?

1 = hunt 2 = trap 3 = gather 4 = other (SPECIFY) 8 = DK 9 = NR

27b. (If harvested separately from the animal.) How do you get the parts you've mentioned?

1 = gather 2 = purchase 3 = trade 4 = other (SPECIFY) 8 = DK 9 = NR

MANAGEMENT TECHNIQUES

28a. Do you (or other Paiute people) try to affect how many of these animals there are?

1 = Yes 2 = No 8 = DK 9 = NR

28b. (IF YES) What do you (or they) do?

29a. Should anyone do anything here in the Grand Canyon to affect how many of these animals are here?

1 = Yes 2 = No 8 = DK 9 = NR

29b. (IF YES) What should they do?

30. Where do you find this animal most frequently?

30a. In the Colorado River Corridor:

30b. Outside the Colorado River Corridor:

31a. Are there any particular plants that usually grow in places where this animal is found? 1 = Yes 2 = No 8 = DK 9 = NR

31b. What plants are those?

32. What do you see that tells you this animal lives or visits here?

1 = See animal 2 = See tracks 3 = See nest, den, burrow 4 = Other (SPECIFY) 5 = Nothing 8 = DK 9 = NR

33. Would this animal be found here every year during the same season?

1 = Yes 2 = No 8 = DK 9 = NR

34. How important is this animal to Southern Paiute people?

1 = High 2 = Medium 3 = Low 8 = DK 9 = NR

35a. How would you evaluate the condition of this animal's habitat here?

1 = Excellent 2 = Good 3 = Fair 4 = Poor 5 = Very poor 8 = DK 9 = NR

35b. What is it about the condition of this habitat that led you to make that evaluation?

36a. Do you feel there are any human activities affecting the condition of the animal or its habitat here? 1 = Yes 2 = No 8 = DK 9 = NR

36b. What human activities are affecting the condition of the animal or its habitat here?

37. What would be your recommendation (if any) for protecting the animal or its habitat here from human activities?

38a. Do you feel there are any natural elements affecting the condition of the animal or its habitat here? 1 = Yes 2 = No 8 = DK 9 = NR

38b. What natural elements are affecting the condition of the animal or its habitat here?

39. What would be your recommendation (if any) for protecting the animal or its habitat here from natural elements?

ADDITIONAL NOTES:

Appendix D

ANIMALS NAMED WITH PAIUTE NAMES DURING COLORADO RIVER CORRIDOR ETHNOFAUNAL STUDY

Note: During group interviews the level of specificity of the Southern Paiute animal names was determined by comparing the target animal to similar species. The common name for which the Paiute name was given is underlined in this list.

MAMMALS

- M1 Pronghorn Antelope (*Antilocapra americana*)
M3 Mule Deer (*Odocoileus hemionus*)
M4 Desert Bighorn Sheep (*Ovis canadensis*)
M5 Badger (*Taxidea taxus*)
M6 Coyote (*Canis latrans*)
M7 Gray Fox (*Urocyon cinereoargenteus*); and Fox
M10 Western Spotted Skunk (*Spilogale gracilis*)
M12 Mountain Lion (*Felis concolor*)
M13 Bobcat (*Lynx rufus*)
M14 Wolf (*Canis lupus*)
M15 Spotted Ground Squirrel (*Spermophilus spilosoma*) and M16 White-tailed Antelope Squirrel (*Ammospermophilus leucurus*); and Mountain Squirrel
M17 Cliff Chipmunk (*Eutamias dorsalis*)
M18 Rock Pocket Mouse (*Perognathus intermedius*); also M21 Canyon Mouse (*Peromyscus crinitus*) and M22 Cactus Mouse (*Peromyscus eremicus*)
M19 Prairie Dog (*Cynomys gunnisoni*)
M20 Beaver (*Castor canadensis*)
M23 White-throated Woodrat (*Neotoma albigula*) and M24 Desert Woodrat (*Neotoma lepida*)
M26 Desert Cottontail (*Sylvilagus audubonii*)
M27 Blacktail Jack Rabbit (*Lepus californicus*); also Snowshoe Rabbit
M28 Western Pipistrelle (*Pipistrellus hesperus*); Bat
M29 Porcupine (*Erethizon dorsatum*)
M30 Pack Rat

BIRDS

- B1 Turkey Vulture (*Cathartes aura*)- Exists but not remembered
- B2 Red-tailed Hawk (*Buteo jamaicensis*)
- B3 Golden Eagle (*Aquila chrysaetos*)
- B4 Bald Eagle (*Haliaeetus leucocephalus*)
- B6 American Kestrel (*Falco sparverius*)
- B7 Mourning Dove (*Zenaida macroura*)
- B9 Black-chinned Hummingbird
(*Archilochus alexandri*)
- B10 Common Raven (*Corvus corax*)
- B11 Cactus Wren (*Campylorhynchus
brunneicapillus*); Rock Wren
- B12 Indigo Bunting (*Passerina cyanea*)- Exists but not remembered
- B14 Black-throated Sparrow (*Amphispiza
bilineata*)- Exists but not remembered
- B15 Northern Mockingbird (*Mimus
polyglottos*)
- B16 Ring-billed Gull (*Larus delawarensis*)- Exists but not remembered
- B17 Scrub Jay (*Aphelocoma coerulescens*)- Exists but not remembered; also Pinyon Jay
- B18 Lesser Nighthawk (*Chordeiles
acutipennis*)
- B19 Great Horned Owl (*Bubo virginianus*)
- B20 Burrowing Owl (*Athene cunicularia*)
- B22 Wild Turkey (*Meleagris gallopavo*)
- B23 Gambel's Quail (*Callipepla gambelii*)
- B24 Great Blue Heron (*Ardea herodias*); same as Egret, Crane
- B25 Mallard Duck (*Anas platyrhynchos*); also Duck
- B26 Northern Flicker (*Colaptes auratus*)