

# **Bioinventory of Glen Canyon Prior to Inundation by the Lake Powell Reservoir**

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## Introduction

### Objectives

The primary goal of this study was to compile a complete species list of the inhabitants of Glen Canyon, prior to its inundation by the Lake Powell Reservoir. In addition, this study identifies basic habitats where species were found within Glen Canyon.

For the purpose of this study, the parameters of Glen Canyon are as follows:

The beginning of Glen Canyon is 169.6 river miles above Lees Ferry, considered the end of Glen Canyon. Throughout this study river mileage refers to number of miles upstream from Lees Ferry, designated river mile 0.0.

The high water mark of the Lake Powell Reservoir occurs at an elevation of approximately 3700 ft. above sea level. All species included in this study inhabited regions below this elevation.

### Sources of Information

Primary sources of information consisted of published materials from surveys done by the University of Utah Department of Anthropology, the University of Utah Department of Biology, and the Museum of Northern Arizona. Additional sources included the National Park Service Midwest Archaeological Center.

## Methods

### The Process of Obtaining Sources

The process of locating sources of information began with internet searches; broad searches initially, then site-specific searches to the University of Utah Marriott Library on-line catalog, and to the Museum of Northern Arizona website. The University of Utah and the Museum of Northern Arizona (MNA) were contracted by the United States Department of Natural Resources to do archaeological and biological surveying and inventorying of Glen Canyon – the Northern section and the Southern section respectively, divided by the San Juan River. Preliminary lists of sources and call numbers were obtained for the Univ. of Utah Marriott Library and Special Collections Department. The MNA was contacted by e-mail regarding biological surveys of Glen Canyon before the reservoir.

The Special Collections Department of the Univ. of Utah J. Willard Marriott Library was visited. Roy Webb, specialist in literature of the Colorado Plateau and employee of the

Special Collections Department, provided a copy of the "Colorado Plateau Resources Bibliography" which lists primary sources found in the Manuscripts Division of Special Collections. This list was used to determine applicable materials available through the Special Collections Department. At this time, clippings files and vertical files were reviewed and notes made of any pertinent references. Kirk Baddley, with the Univ. of Utah Archives Department, was contacted upon recommendation by R. Webb to inquire about the archives of non-published materials such as administrative files and unprocessed manuscripts at the Univ. of Utah. Baddley suggested relying on the published documents on record at the library and available through the Special Collections Department.

Phone calls were placed to the MNA, to the Utah State Office of Natural Resources, to the Bureau of Land Management (BLM) Utah State Office, and to Glen Canyon National Recreation Area (GCNRA), to the Univ. of Utah Museum of Natural History.

Contacts made:

- 1) MNA – Roger Clark, David Wilcox, Senior Curator of Anthropology, Michael O’Hara, librarian  
Suggested sources: Specific bulletins from the MNA Bulletin Series and Technical series, excavations along the lower San Juan River  
Archaeological work done in the Paiute Mesa area, the San Juan uplands
- 2) Utah State Office of Natural Resources – referred to the Utah State Office of the  
Suggested sources: BLM
- 3) Utah State Office of the BLM, Information Access Center – Rolando  
Suggested sources: Contact GCNRA and Grand Staircase Escalante National Monument
- 4) GCNRA, Resource Management Division – John Rittenauer, Norm Henderson,  
Suggested sources: Bureau of Reclamation
- 5) Bureau of Reclamation Office in Salt Lake City –  
Suggested sources: anthropological and biological studies conducted at Univ. of Utah
- 6) Univ. of Utah Museum of Natural History, Anthropology Department – Kathy Kankainen  
Suggested sources: Univ. of Utah Anthropological Papers and MNA Bulletins

From the above listed contacts, it was concluded that the Univ. of Utah Anthropological Series and Biological Series, and the MNA Bulletin Series and Technical Series would be the primary sources of information for the bioinventory.

Resources were collected from the Willard J. Marriott Library, Univ. of Utah, and from the Marriott Library Special Collections Department. A variety of sources were available to be checked out from the Marriott Library stacks. Sources that were unavailable were located in the Special Collections Department, where photocopies were made of applicable materials.

## Methods of Data Compilation

Sources were read and marked for species information. For each source containing specific species information, data was entered into Microsoft Excel spreadsheets. The spreadsheets contained references to original source, page number, call number, and description of contents, maintaining integrity in wording and locational information. Species were included only if found below an elevation of 3700 ft. above sea level. Species must have been sighted within Glen Canyon or adjacent tributary canyons likewise inundated by the reservoir.

Preliminary lists were then sorted and compiled into final master lists of vegetation, avifauna, mammals, fish, invertebrates, reptiles and amphibians. Separate lists were compiled of species data by zones within the canyon, i.e. streamside zone, terrace zone, and hillside zone. These lists included avifauna, mammals, and vegetation. Additional lists were compiled of vegetation in wide side canyons and narrow side canyons, and for springs and seepage areas. Lists were also made of the point-source data for each species for which information was available.

## Results

### **Vegetation**

The complete list of vegetation is located in Appendix A.

Vegetation is listed by zones in Appendices H-J.

Data on the vegetation found in side canyons is located in Appendices K-L.

Data on the vegetation found at springs and seepage areas is located in Appendix M.

A total of 1017 types of vegetation were found to have existed in Glen Canyon.

Vegetation data was obtained from Adams et al. (1961); Adams et al. (1959); Gaines (1960); Jennings (1966); Lister (1958); Long (1966); Tipps (1984); Woodbury (1965); Woodbury et al. (1958); Woodbury et al. (1959a); Woodbury et al. (1959b).

### **Avifauna**

The complete list of avifauna is located in Appendix B.

Birds listed by zone in Appendices H-J.

A total of 226 types of birds were found to have existed in Glen Canyon.

Data on avian species was obtained from Behle (1960); Jennings (1966); Woodbury (1965); Woodbury et al. (1958); Woodbury et al. (1959b).

### **Mammals**

The complete list of mammal data is located in Appendix C.

Mammals listed by zone in Appendices H-J.

A total of 122 types of mammals were found to have existed in Glen Canyon.

Mammal data was obtained from Adams et al. (1959); Jennings (1966); Lister (1958); Long (1966); Tipps (1984); Woodbury (1965); Woodbury et al. (1958); Woodbury et al. (1959b).

**Fish**

The complete list of fish species is located in Appendix D. A total of 23 types of fish species were found to have existed in Glen Canyon. Data on fish species was obtained from Jennings (1966); Long (1966); Woodbury et al. (1958); Woodbury et al. (1959b).

**Reptiles**

The complete list of reptile data is located in Appendix E. A total of 24 types of reptiles were found to have existed in Glen Canyon. Reptile data was obtained from Adams et al. (1959); Jennings (1966); Lister (1958); Long (1966); Woodbury (1928); Woodbury (1965); Woodbury et al. (1958); Woodbury et al. (1959b).

**Amphibians**

The complete list of amphibians is located in Appendix F. A total of 8 types of amphibians were found to have existed in Glen Canyon. Amphibian data was obtained from Jennings (1966); Lister (1958); Woodbury et al. (1958); Woodbury et al. (1959b); Woodbury (1965).

**Invertebrates**

The complete list of invertebrates is located in Appendix G. A total of 769 types of invertebrates were found to have existed in Glen Canyon. Of these invertebrates, 9 were endoparasites, and 34 were mollusks. Arthropods comprised 726 of these invertebrate species, and 607 of those arthropods were insects. Invertebrate data was obtained from Lister (1958); Long (1966); Musser (1962); Woodbury (1965); Woodbury et al. (1958); Woodbury et al. (1959b).

**Zones within Glen Canyon**

Three distinct habitat zones existed within Glen Canyon. Directly adjacent to the Colorado River is the "Streamside Zone," which provided percolating water for vegetation year round, and in spring and early summer was submerged by high flood water. The "Terrace Zone" was created by old flood plains of the river, which were usually higher than the reach of the current flood waters. Access to water was available to plants with roots that could tap into the capillary movement of water outward from the river. Additional xerophytic herbs and shrubs inhabited the dry surface soil layer. The "Hillside Zone" typically exhibited gradually rising slopes with intervening sandstone ledges, or steep talus slopes and cliffs. The only available moisture is from precipitation.

Vegetation, avifauna, and mammals occupying the various zones are listed in the following appendices:

Streamside Zone – Appendix H

Terrace Zone – Appendix I

Hillside Zone – Appendix J

Data for zones was obtained from Woodbury et al. (1959b); Long (1966); Tipps (1984); Jennings (1966); Woodbury (1965); Adams et al. (1961); Woodbury et al. (1959a); Behle (1960).

**Side Canyons and Tributaries**

Some species data was obtained that specified the vegetation inhabiting the various types of side canyons and tributaries entering into the Colorado River throughout the length of Glen Canyon. Appendix K lists vegetation in wide side canyons. The side canyons surveyed as examples of wide side canyons are North Wash (river mile 167.7), Farley Canyon (river mile 163.1), White Canyon (river mile 162.8), Trachyte Creek (river mile 161.5), and Red Canyon (river mile 149.7).

Appendix L lists vegetation in narrow side canyons. These canyons provided a unique ecological environment enabling certain vegetation types to flourish. Little Eden (river mile 118.0), Lake Canyon (river mile 113.2) and Aztec Canyon (river mile 68.6) are provided as specific examples of the narrow side canyons.

Side canyon vegetation data was obtained from Woodbury et al. (1959b).

**Springs and Seepage Areas**

A characteristic of Glen Canyon, particularly in the side canyons, is the seepage of water along horizontal bedding planes of the sandstone walls. These can range from damp seams to large permanent springs, located primarily toward the bases of canyon walls, and less commonly at higher elevations on cliff faces. Vegetation of springs and seepage areas is listed in Appendix M. Prime examples of this type of feature were seen in Music Temple (river mile 75.8).

Spring and seepage vegetation data was obtained from Woodbury et al. (1959b).

Summary

This study documents the biodiversity that existed in Glen Canyon, prior to inundation by the Lake Powell Reservoir following the construction of Glen Canyon Dam. The extent of species habitation within Glen Canyon had not been fully assessed up until the completion of this study. It has become apparent from all available resources that relatively few people participated in the surveying and initial collection of data. This bioinventory may be useful in future analysis of Glen Canyon and the surrounding

environs. As an extension of this study, a spatial layout of habitat distribution will be completed detailing the specific locations at which many of the species listed in this study were sighted.

The data were analyzed using a chi-square test to determine if there was a significant difference in the distribution of species between the two habitats.

Results of the chi-square test indicated that there was a significant difference in the distribution of species between the two habitats. The results showed that the distribution of species was significantly different between the two habitats.

These results suggest that the distribution of species is not random and that there are specific factors influencing the distribution of species in the two habitats.

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## Appendix A

<b>Flora of Glen Canyon</b>		
<b>Bryophyta (phylum) - Mosses</b>		
<b>Hepaticae (class) - Liverworts</b>		
<b>RICCIACEAE</b>		
		<i>Riccia frostii</i>
<b>MARCHANTIACEAE</b>		
		<i>Marchantia polymorpha</i>
<b>FISSIDENTACEAE</b>		
		<i>Fissidens obtusifolius</i> var. <i>marginatus</i>
<b>Musci (class) - Mosses</b>		
<b>POTTIACEAE</b>		
		<i>Didymodon tophaceus</i>
		<i>Gymnostomum aeruginosum</i>
		<i>Gymnostomum recurvirostrum</i>
		<i>Eucladium verticillatum</i>
		<i>Barbula bescherellii</i>
		<i>Barbula vinealis</i>
		<i>Crossidium desertorum</i>
		<i>Crossidium griseum</i>
		<i>Desmatodon convolutus</i>
		<i>Desmatodon plinthobius</i>
		<i>Tortula atrovirens</i>
		<i>Tortula inermis</i>
		<i>Tortula obtusissima</i>
		<i>Tortula ruralis</i>
<b>GRIMMIACEAE</b>		
		<i>Grimmia orbicularis</i>
		<i>Grimmia raii</i>
<b>FUNAREACEAE</b>		
		<i>Funaria hygrometrica</i>
<b>BARTRAMIACEAE</b>		
		<i>Philonotis capillaris</i>
		<i>Philonotis marchica</i>
<b>BRYACEAE</b>		

## Appendix A

		<i>Bryum gemmiparum</i>
HYPNACEAE		
		<i>Amblystegium varium</i>
		<i>Campyllum crysophyllum</i>
<b>Pteridophyta (phylum) - Ferns</b>		
SELAGINELLACEAE - Selaginellas		
		<i>Selaginella mutica</i>
		<i>Selaginella watsoni</i>
EQUISETACEAE - Horsetails		
	Horsetail	<i>Equisetum kansanum</i>
	Horsetail	<i>Equisetum laevigatum</i>
	Horsetail	<i>Equisetum praealtum</i>
	Horsetail	<i>Equisetum hiemale</i>
POLYPODIACEAE - Ferns		
	Venus'-hair fern	<i>Adiantum capillus-veneris</i>
	Alpine maidenhair	<i>Adiantum pedatum</i>
		<i>Adiantum rimicola</i>
	Slender lip fern	<i>Cheilanthes feei</i>
		<i>Filix fragilis</i>
	Cliffbrake	<i>Pellaea limitanea</i>
	Bracken fern	<i>Pteridium aquilinum</i> var. <i>pubescens</i>
<b>Spermatophyta (phylum) - Seed plants</b>		
<b>Gymnospermae (class) - Cone-bearing plants</b>		
PINACEAE - Pines		
	White fir	<i>Abies concolor</i>
	Alpine fir	<i>Abies lasiocarpa</i>
	Engelmann spruce	<i>Picea engelmanni</i>
	Blue spruce	<i>Picea pungens</i>
	Bristle cone pine	<i>Picea aristata</i>
		<i>Pinus edulis</i>
	Limber pine	<i>Pinus flexilis</i>
	Ponderosa	<i>Pinus ponderosa</i> var. <i>scopulorum</i>
	Douglas fir	<i>Pseudotsuga taxifolia</i>
CUPRESSACEAE - Cypress and junipers		

## Appendix A

	Single seed juniper	<i>Juniperus monosperma</i>
	Western juniper	<i>Juniperus occidentalis</i>
	Utah juniper	<i>Juniperus osteosperma</i>
	Red juniper	<i>Juniperus scopulorum</i>
	Mountain juniper	<i>Juniperus sibirica</i>
	Utah juniper	<i>Juniperus utahensis</i>
<b>EPHEDRACEAE - Jointfirs</b>		
	Nevada ephedra	<i>Ephedra nevadensis</i>
	Torrey ephedra	<i>Ephedra torreyana</i>
	Green ephedra	<i>Ephedra viridis</i>
<b>Angiospermae (class) - Flowering plants</b>		
<b>Monocotyledones (subclass) - Monocots</b>		
<b>TYPHACEAE - Cattails</b>		
	Wide-leaf cattail	<i>Typha domingensis</i>
	Common cattail	<i>Typha latifolia</i>
	Narrow-leaf cattail	<i>Typha angustifolia</i>
<b>JUNCAGINACEAE - Arrowgrass</b>		
	Arrowgrass	<i>Triglochin maritima</i>
<b>GRAMINEAE - Grasses</b>		
	Cheat grass	<i>Bromus ciliatus</i>
	Cheat grass	<i>Bromus commutatus</i>
	Cheat grass	<i>Bromus marginatus</i>
		<i>Bromus polyanthus</i>
	Cheat grass	<i>Bromus porteri</i>
	Cheat grass	<i>Bromus rubens</i>
	Cheat grass	<i>Bromus tectorum</i>
	Fescue grass	<i>Festuca brachyphylla</i>
	Fescue grass	<i>Festuca elatior</i>
	Fescue grass	<i>Festuca grayi</i>
	Fescue grass	<i>Festuca idahoensis</i>
	Fescue grass	<i>Festuca octoflora</i>
	Fescue grass	<i>Festuca ovina</i>
	Fescue grass	<i>Festuca sororia</i>
	Fescue grass	<i>Festuca thurberi</i>
	Alkali grass	<i>Puccinellia airoides</i>

## Appendix A

	<i>Puccinellia nuttalliana</i>
	<i>Glyceria striata</i>
Blue grass	<i>Poa alpina</i>
Blue grass	<i>Poa bigelovii</i>
Blue grass	<i>Poa canbyi</i>
Blue grass	<i>Poa fendleriana</i>
Blue grass	<i>Poa interior</i>
Blue grass	<i>Poa longiligula</i>
Blue grass	<i>Poa nervosa</i>
Blue grass	<i>Poa nevadensis</i>
Kentucky blue grass	<i>Poa pratensis</i>
Blue grass	<i>Poa rupicola</i>
Blue grass	<i>Poa secunda</i>
Love grass	<i>Eragrostis cilianensis</i>
Love grass	<i>Eragrostis diffusa</i>
Love grass	<i>Eragrostis trichodes</i>
Salt grass	<i>Distichlis stricta</i>
Salt grass	<i>Distichlis spicata</i>
Reed cane	<i>Phragmites communis</i>
Fluff grass	<i>Tridens muticus</i>
Fluff grass	<i>Tridens pilosus</i>
Fluff grass	<i>Tridens pulchella</i>
Crested wheat grass	<i>Agropyron cristatum</i>
Wheat grass	<i>Agropyron dasystachyum</i>
Wheat grass	<i>Agropyron desertorum</i>
Wheat grass	<i>Agropyron inerme</i>
Wheat grass	<i>Agropyron repens</i>
Wheat grass	<i>Agropyron riparium</i>
Wheat grass	<i>Agropyron scribneri</i>
Wheat grass	<i>Agropyron smithii</i>
Wheat grass	<i>Agropyron spicatum</i>
Wheat grass	<i>Agropyron subsecundum</i>
Wheat grass	<i>Agropyron tenerum</i>
Wheat grass	<i>Agropyron trachycaulum</i>
Wild-rye	<i>Elymus canadensis</i>
Wild-rye	<i>Elymus condensatus</i>

## Appendix A

	Wild-rye	<i>Elymus glaucus</i>
	Wild-rye	<i>Elymus triticoides</i>
	Squirrel-tail grass	<i>Sitanion hystrix</i>
	Squirrel-tail grass	<i>Sitanion jubatum</i>
	Wild barley	<i>Hordeum jubatum</i>
	Barley	<i>Hordeum stebbinsii</i>
	June grass	<i>Koeleria cristata</i>
	Wedge grass	<i>Sphenopholis obtusata</i>
		<i>Trisetum spicatum</i>
	Hair grass	<i>Deschampsia caespitosa</i>
	Wild oats	<i>Avena fatua</i>
	Wild oats	<i>Avena sativa</i>
	Wild oats	<i>Avena striata</i>
	Reed grass	<i>Calamagrostis inexplansa</i>
	Reed grass	<i>Calamagrostis scopulorum</i>
	Bent grass, Red top	<i>Agrostis alba</i>
	Bent grass	<i>Agrostis palustris</i>
	Bent grass	<i>Agrostis verticillata</i>
	Polypogon grass	<i>Polypogon interruptus</i>
	Polypogon grass	<i>Polypogon monspelliensis</i>
	Timothy grass	<i>Phleum pratense</i>
		<i>Muhlenbergia andina</i>
		<i>Muhlenbergia asperifolia</i>
		<i>Muhlenbergia glauca</i>
		<i>Muhlenbergia pungens</i>
		<i>Muhlenbergia richardsoni</i>
	Drop-seed	<i>Sporobolus airoides</i>
	Drop-seed	<i>Sporobolus contractus</i>
	Drop-seed	<i>Sporobolus cryptandrus</i>
	Drop-seed	<i>Sporobolus flexuosus</i>
	Drop-seed	<i>Sporobolus pulvinatus</i>
		<i>Blepharoneuron tricholepis</i>
	Indian rice grass	<i>Oryzopsis hymenoides</i>
	Rice grass	<i>Oryzopsis micrantha</i>
	Needle and thread grass	<i>Stipa arida</i>
	Needle and thread grass	<i>Stipa comata var. intermedia</i>

## Appendix A

	Needle and thread grass	<i>Stipa coronata</i>
	Needle and thread grass	<i>Stipa lettermani</i>
	Needle and thread grass	<i>Stipa neomexicana</i>
	Needle and thread grass	<i>Stipa spartea</i>
	Three-awn grass	<i>Aristida adscensionis</i>
	Three-awn grass	<i>Aristida fendleriana</i>
	Three-awn grass	<i>Aristida glauca</i>
	Three-awn grass	<i>Aristida longiseta</i>
	Galleta	<i>Hilaria jamesii</i>
	Gramma	<i>Bouteloua barbata</i>
	Side-oats grama	<i>Bouteloua curtipendula</i>
	Gramma	<i>Bouteloua eriopoda</i>
	Gramma	<i>Bouteloua gracilis</i>
	Gramma	<i>Bouteloua hirsuta</i>
	Panic-grass	<i>Panicum hirticaule</i>
	Panic-grass	<i>Panicum obtusum</i>
	Panic-grass	<i>Panicum occidentale</i>
	Panic-grass	<i>Panicum tennesseense</i>
	Panic-grass	<i>Panicum virgatum</i>
	Cock-spur grass, Barnyard grass	<i>Echinochloa crusgalli</i>
	Satin-tail grass	<i>Imperata brevifolia</i>
	Beardgrass	<i>Andropogon barbinodis</i>
	Beardgrass	<i>Andropogon glomeratus</i>
	Beardgrass	<i>Andropogon hallii</i>
	Beardgrass	<i>Andropogon saccharoides</i>
	Beardgrass	<i>Andropogon scoparius</i>
	Indian grass	<i>Sorghastrum nutans</i>
		<i>Cymopteris globosus</i>
		<i>Cymopteris newberryi</i>
CYPERACEAE - Sedges		
	Flat-sedge	<i>Cyperus aristatus</i> var. <i>inflexus</i>
	Sedge	<i>Cyperus erythrorhizos</i>
	Sedge	<i>Carex festivella</i>
	Sedge	<i>Carex kelloggii</i>
	Sedge	<i>Carex lanuginosa</i>
	Sedge	<i>Carex nebraskensis</i>

## Appendix A

	Sedge	<i>Carex petasata</i>
	Sedge	<i>Carex phaeocephala</i>
	Spike-rush	<i>Eleocharis calva</i>
	Spike-rush	<i>Eleocharis macrostachya</i>
	Spike-rush	<i>Eleocharis montana</i>
	Spike-rush	<i>Eleocharis montevidensis</i>
	Spike-rush	<i>Eleocharis palustris</i>
	Spike-rush	<i>Eleocharis parishii</i>
	Spike-rush	<i>Eleocharis rostellata</i>
	Bulrush	<i>Scirpus acutus</i>
	Bulrush	<i>Scirpus americanus</i>
	Bulrush	<i>Scirpus olneyi</i>
	Bulrush	<i>Scirpus paludosus</i>
COMMELINACEAE - Spiderworts		
	Spiderwort	<i>Tradescantia occidentalis</i>
JUNCACEAE - Rushes		
	Rush	<i>Juncus acuminatus</i>
	Rush	<i>Juncus balticus</i>
	Rush	<i>Juncus ensifolius</i>
	Rush	<i>Juncus longistylis</i>
	Rush	<i>Juncus mertensianus</i>
	Rush	<i>Juncus mexicanus</i>
	Rush	<i>Juncus parviflorum</i>
	Rush	<i>Juncus saximontanus</i>
	Rush	<i>Juncus torreyi</i>
	Rush	<i>Juncus xiphoides</i>
LILIACEAE - Lilies and allies		
	Death-camas	<i>Zigadenus elegans</i>
	Death-camas	<i>Zigadenus venenosus</i>
	Glen Canyon lily	<i>Eremocrinum albomarginatum</i>
	Onion	<i>Allium acuminatum</i>
	Onion	<i>Allium marcropetalum</i>
	Onion	<i>Allium nevadense</i>
	Onion	<i>Allium nevadense var. cristatum</i>
	Wild onions	<i>Allium textile</i>
	Funnel lily	<i>Androstephium breviflorum</i>



## Appendix A

	Purple fritillary	<i>Fritillaria atropurpurea</i>
	Mariposa	<i>Calochortus flexuosus</i>
	Golden mariposa lily	<i>Calochortus nuttallii</i>
	Narrow-leaf yucca	<i>Yucca angustissima</i>
	Fleshy-fruited yucca	<i>Yucca baccata</i>
	Yucca	<i>Yucca harrimaniae</i>
	Yucca	<i>Yucca navajoa</i>
	False solomonseal	<i>Smilacina racemosa</i>
	False solomonseal	<i>Smilacina stellata</i>
		<i>Disporum trachycarpum</i>
<b>IRIDACEAE - Iris</b>		
	Iris	<i>Iris missouriensis</i>
<b>ORCHIDACEAE - Orchids</b>		
		<i>Habenaria dilatata</i>
		<i>Habenaria hyperborea</i>
	Giant helleborine	<i>Epipactis gigantea</i>
	Coral root	<i>Corallorrhiza maculata</i>
	Coral root	<i>Corallorrhiza multiflora</i>
<b>Dicotyledones (subclass) - Dicots</b>		
<b>SALICACEAE - Willows and cottonwoods</b>		
	Poplar	<i>Populus acuminata</i>
	Narrow-leafed cottonwood	<i>Populus angustifolia</i>
	Fremont cottonwood	<i>Populus fremontii</i>
	Aspen	<i>Populus tremuloides</i>
	Willow	<i>Salix bebbiana</i> var. <i>perrostrata</i>
	Willow	<i>Salix caudata</i>
	Narrow-leaf willow	<i>Salix exigua</i> var. <i>stenophylla</i>
	Gooding willow	<i>Salix goodingii</i>
	Willow	<i>Salix laevigata</i>
	Willow	<i>Salix lutea</i>
	Willow	<i>Salix scouleriana</i>
<b>BETULACEAE - Birches</b>		
	Water birch	<i>Betula fontinalis</i>
<b>FAGACEAE - Beeches</b>		
	Gambel oak	<i>Quercus gambelii</i>

## Appendix A

	Pungent-leaved oak	<i>Quercus pungens</i>
	Shrub live oak	<i>Quercus turbinella</i>
	Wavy-leaved oak	<i>Quercus undulata</i>
	Hybrid oak	<i>Quercus gambelii</i> x <i>Quercus turbinella</i>
ULMACEAE - Elms and allies		
	Hackberry	<i>Celtis douglasii</i>
	Hackberry	<i>Celtis reticulata</i>
LORANTHACEAE - Mistletoe		
	Small mistletoe	<i>Archeuthobium divaricata</i>
	Juniper mistletoe	<i>Phoradendron juniperinum</i>
SANTALACEAE - Sandalwood		
	Bastard toadflax	<i>Comandra pallida</i>
POLYGONACEAE - Buckwheats		
	Wild buckwheat	<i>Eriogonum alatum</i>
	Wild buckwheat	<i>Eriogonum aureum</i>
	Wild buckwheat	<i>Eriogonum campanulatum</i>
	Wild buckwheat	<i>Eriogonum cernuum</i>
	Wild buckwheat	<i>Eriogonum corymbosum</i>
	Wild buckwheat	<i>Eriogonum deflexum</i>
	Wild buckwheat	<i>Eriogonum delicatulum</i>
	Bottlestopper	<i>Eriogonum inflatum</i>
	Buckwheat	<i>Eriogonum jonesii</i>
	Wild buckwheat	<i>Eriogonum leptocladon</i>
	Wild buckwheat	<i>Eriogonum nummelare</i>
	Wild buckwheat	<i>Eriogonum nutans</i>
	Wild buckwheat	<i>Eriogonum ovalifolium</i> var. <i>purpureum</i>
	Wild buckwheat	<i>Eriogonum polifolium</i>
	Wild buckwheat	<i>Eriogonum puberulum</i>
	Wild buckwheat	<i>Eriogonum racemosum</i>
	Wild buckwheat	<i>Eriogonum shockleyi</i>
	Wild buckwheat	<i>Eriogonum simsoni</i>
	Wild buckwheat	<i>Eriogonum stellatum</i>
	Buckwheat	<i>Eriogonum subreniforme</i>
	Wild buckwheat	<i>Eriogonum watsonii</i>
	Wild buckwheat	<i>Eriogonum wetherillii</i>

## Appendix A

	Sorrel	<i>Rumex hymenosepalus</i>
	Sorrel	<i>Rumex patientia</i>
	Sorrel	<i>Rumex subalpinus</i>
	Water smartweed	<i>Polygonum aquaticum</i>
	Knotgrass	<i>Polygonum aviculare</i>
	Smartweed	<i>Polygonum lapathifolium</i>
	Knotweed	<i>Polygonum persicaria</i>
	Knotweed	<i>Polygonum ramosissimum</i>
	Knotweed	<i>Polygonum sawatchense</i>
CHENOPODIACEAE - Goosefoots		
	Lambsquarters	<i>Chenopodium album</i>
	Goose-foot	<i>Chenopodium fremonti</i>
	Goose-foot	<i>Chenopodium humile</i>
	Goose-foot	<i>Chenopodium incisum</i>
	Goose-foot	<i>Chenopodium leptophyllum</i>
	Bug seed	<i>Chenopodium nitidum</i>
	Goose-foot	<i>Chenopodium petiolare</i>
		<i>Chenopodium atriplicifolia</i>
		<i>Blitum capitatum</i>
	Fourwing saltbush	<i>Atriplex canescens</i>
	Shadscale	<i>Atriplex confertifolia</i>
	Saltbush	<i>Atriplex corrugata</i>
	Saltbush	<i>Atriplex cuneata</i>
	Saltbush	<i>Atriplex garrettii</i>
	Saltbush	<i>Atriplex graciliflora</i>
	Saltbush	<i>Atriplex jonesii</i>
	Saltbush	<i>Atriplex lentiformis</i>
	Saltbush	<i>Atriplex powellii</i>
	Saltbush	<i>Atriplex saccaria</i>
	Hop-sage	<i>Grayia spinosa</i>
	Winterfat	<i>Eurotia lanata</i>
	Gray molly	<i>Kochia vestita</i>
	Bug seed	<i>Corispermum hyssopifolium</i>
	Samphire	<i>Salicornia utahensis</i>
	Greasewood	<i>Sarcobatus vermiculatus</i>
	Seepweed	<i>Dondia depressa</i>

## Appendix A

	Seepweed	<i>Dondia nigra</i>
	Russian thistle	<i>Salsola kali</i> var. <i>tenuifolia</i>
	Winged pig-weed	<i>Cycloma atriplicifolium</i>
AMARANTHACEAE - Amaranths		
	Tumbleweed	<i>Amaranthus albus</i>
	Amaranth	<i>Amaranthus blitoides</i>
	Amaranth	<i>Amaranthus hybridus</i>
		<i>Tidestromia lanuginosa</i>
NYCTAGINACEAE - Four o'clocks		
	Sand verbena	<i>Abronia elliptica</i>
	Sand verbena	<i>Abronia glabrata</i>
	Sand verbena	<i>Abronia pumila</i>
	Sand verbena	<i>Abronia salsa</i>
		<i>Allionia incarnata</i>
		<i>Allionia linearis</i>
	Four o'clock	<i>Mirabilis multiflora</i>
	Sandsperry	<i>Tissa sparsiflora</i>
		<i>Tripterocalyx micranthus</i>
		<i>Tripterocalyx pedunculatus</i>
		<i>Tripterocalyx wootonii</i>
PORTULACACEAE - Purslane		
	Spring beauty	<i>Claytonia lanceolata</i>
	Miner's lettuce	<i>Claytonia perfoliata</i>
	Bitter root	<i>Lewisia pygmaea</i>
		<i>Montia parvifolia</i>
CARYOPHYLLACEAE - Pinks		
	Sandwort	<i>Arenaria eastwoodiae</i>
	Sandwort	<i>Arenaria macradenia</i>
	Sandwort	<i>Arenaria uintahensis</i>
		<i>Cerastium beeringianum</i>
	Catchfly	<i>Silene acaulis</i>
	Catchfly	<i>Silene lyalli</i>
	Starwort	<i>Stellaria jamesiana</i>
	Starwort	<i>Stellaria umbellata</i>
RANUNCULACEAE - Buttercups and allies		
	Baneberry	<i>Actaea arguta</i>

	Colorado columbine	<i>Aquilegia caerulea</i>
	Columbine	<i>Aquilegia chrysantha</i>
	Columbine	<i>Aquilegia micrantha</i>
	Columbine	<i>Aquilegia oreophila</i>
	Larkspur	<i>Delphinium bicolor</i>
	Larkspur	<i>Delphinium occidentale</i>
	Larkspur	<i>Delphinium scaposum</i>
	Monks-hood	<i>Aconitum bakeri</i>
	Douglas clematis	<i>Clematis hirsutissima</i>
	Clematis	<i>Clematis ligusticifolia</i>
	Clematis	<i>Clematis pseudoalpina</i>
		<i>Trautvetteria grandis</i>
	Buttercups	<i>Ranunculus affinis</i>
	Buttercups	<i>Ranunculus alismaefolius</i>
	Buttercups	<i>Ranunculus circinatus</i>
	Buttercups	<i>Ranunculus cybalaria</i>
	Buttercups	<i>Ranunculus sceleratus</i>
	Meadow-rue	<i>Thalictrum fendleri</i>
	Meadow-rue	<i>Thalictrum occidentale</i>
	Meadow-rue	<i>Thalictrum polycarpum</i>
BERBERIDACEAE - Barberry		
	Hollygrape, weump berry	<i>Berberis fremontii</i>
	Hollygrape	<i>Berberis repens</i>
PAPAVERACEAE - Poppies		
	Prickly poppy	<i>Argemone intermedia</i>
	Prickly poppy	<i>Argemone platyceras</i> var. <i>hispida</i>
	Poppy	<i>Corydalis aurea</i>
CRUCIFERAE - Mustards		
	Princes plume	<i>Stanleya arcuata</i>
	Princes plume	<i>Stanleya bipinnata</i>
	Princes plume	<i>Stanleya pinnata</i>
		<i>Schoenocrambe linifolia</i>
		<i>Thelypodium integrifolium</i>
		<i>Caulanthus procerus</i>
	Twist flower	<i>Streptanthus cordatus</i>
	Twist flower	<i>Streptanthus longirostris</i>

## Appendix A

22

	Pepper grass	<i>Lepidium densiflorum</i>
	Pepper grass	<i>Lepidium eastwoodiae</i>
	Pepper grass	<i>Lepidium fremontii</i>
	Pepper grass	<i>Lepidium lasiocarpum</i>
	Pepper grass	<i>Lepidium montanum</i>
	Pennycress	<i>Thlaspi glaucum</i>
	Watercress	<i>Roripa nasturtium-aquaticum</i>
	Watercress	<i>Sisymbrium altissimum</i>
	Watercress	<i>Sisymbrium filipes</i>
	Watercress	<i>Sisymbrium incisum</i>
	Watercress	<i>Sisymbrium linifolium</i>
	Bittercress	<i>Cardamine cordifolia</i>
	Spectacle-pod	<i>Dithyrea wislizeni</i>
	Twinpod	<i>Physaria didymocarpa</i>
	Twinpod	<i>Physaria newberryi</i>
	Bladderpod	<i>Lesquerella argentea</i>
	Bladderpod	<i>Lesquerella arizonica</i>
	Bladderpod	<i>Lesquerella cinerea</i>
	Bladderpod	<i>Lesquerella intermedia</i>
	Bladderpod	<i>Lesquerella rectipes</i>
	Bladderpod	<i>Lesquerella utahensis</i>
	Bladderpod	<i>Lesquerella wardii</i>
	Whitlow grass	<i>Draba aurea</i>
	Tansy mustard	<i>Descurainia obtusa</i>
	Tansy mustard	<i>Descurainia pinnata</i>
	Rockcress	<i>Arabis drummondii</i>
	Rockcress	<i>Arabis glabra</i>
	Rockcress	<i>Arabis microphylla</i>
	Rockcress	<i>Arabis nuttalli</i>
	Hedge mustard	<i>Erysimum asperrimum</i>
	Hedge mustard	<i>Erysimum asperum</i>
	Hedge mustard	<i>Erysimum cheiranthoides</i>
CAPPARIDACEAE - Capers		
	Yellow beeflower	<i>Cleome lutea</i>
	Purple beeflower	<i>Cleome serrulata</i>
		<i>Cleomella palmerana</i>

## Appendix A

	Jackass-clover	<i>Wislizenia melilotoides</i>
CRASSULACEAE - Stonecrops		
	Stonecrop	<i>Sedum douglasii</i>
	Stonecrop	<i>Sedum stenopetalum</i>
SAXIFRAGACEAE - Alumroot		
	Alumroot	<i>Heuchera parvifolia</i>
	Alumroot	<i>Heuchera rubescens</i>
	Woodland-star	<i>Lithophragma parviflora</i>
		<i>Fendlera rupicola</i>
		<i>Parnassia parviflora</i>
	Wax currant	<i>Ribes cereum</i>
	Currant	<i>Ribes inebrians</i>
	Currant	<i>Ribes leptanthum</i>
	Currant	<i>Ribes montigenum</i>
ROSACEAE - Roses and allies		
	Ninebark	<i>Physocarpus malvaceus</i>
	Rock-mat	<i>Petrophytum caespitosum</i>
	Rock spires	<i>Holodiscus dumosus</i>
	Service berry	<i>Amelanchier alnifolia</i>
	Shadblow	<i>Amelanchier glabra</i>
	Service berry	<i>Amelanchier oreophila</i>
	Service berry	<i>Amelanchier utahensis</i>
	Squaw-apple	<i>Peraphyllum ramosissimum</i>
	Wild raspberry	<i>Rubus melanolasius</i>
	Cinquefoil	<i>Potentilla bicrenata</i>
	Cinquefoil	<i>Potentilla crinita</i>
	Cinquefoil	<i>Potentilla filipes</i>
	Cinquefoil	<i>Potentilla fissa</i>
	Bush cinquefoil	<i>Potentilla fruticosa</i>
	Cinquefoil	<i>Potentilla glandulosa</i>
	Cinquefoil	<i>Potentilla micropetala</i>
		<i>Sibbaldia procumbens</i>
	Apache plume	<i>Fallugia paradoxa</i>
	Cliffrose	<i>Cowania mexicana</i> var. <i>stansburiana</i>
	Desert mahogany	<i>Cercocarpus ledifolius</i> var. <i>intricatus</i>
	Mountain mahogany	<i>Cercocarpus montanus</i>

	Blackbrush	<i>Coleogyne ramosissima</i>
	Antelope brush, Bitterbrush	<i>Purshia tridentata</i>
	Rose	<i>Rosa arizonica</i> var. <i>granulifera</i>
	Rose	<i>Rosa manca</i>
	Wild rose	<i>Rosa melina</i>
	Rose	<i>Rosa nutkana</i>
	Wild rose	<i>Rosa oreophila</i>
	Rose	<i>Rosa woodsii</i>
	Chokecherry	<i>Prunus virginiana</i> var. <i>melanocarpa</i>
LEGUMINOSAE - Peas and allies		
		<i>Krameria parvifolia</i> var. <i>Glandulosa</i>
	Redbud	<i>Cercis occidentalis</i>
		<i>Hoffmanseggia repens</i>
	Sophora	<i>Sophora stenophylla</i>
	Lupine	<i>Lupinus aduncus</i>
	Lupine	<i>Lupinus argenteus</i>
	Lupine	<i>Lupinus barbiger</i>
	Lupine	<i>Lupinus brevicaulis</i>
	Lupine	<i>Lupinus caudatus</i>
	Lupine	<i>Lupinus intermontanus</i>
	Lupine	<i>Lupinus kingii</i>
	Lupine	<i>Lupinus pusillus</i>
	Lupine	<i>Lupinus pusillus</i> var. <i>intermontanus</i>
	Lupine	<i>Lupinus sericeus</i>
	Lupine	<i>Lupinus sparsiflorus</i>
	Lupine	<i>Lupinus stiversi</i>
	White sweet clover	<i>Melilotus albus</i>
	Yellow sweet clover	<i>Melilotus officinalis</i>
	Clover	<i>Trifolium dasyphyllum</i>
	Clover	<i>Trifolium gymnocarpum</i>
	Scurf-pea	<i>Psoralea juncea</i>
	Scurf-pea	<i>Psoralea lanceolata</i>
	Scurf-pea	<i>Psoralea stenostachys</i>
		<i>Parryella filifolia</i>
	Indigo bush	<i>Dalea amoena</i>
	Indigo bush	<i>Dalea fremontii</i>



	Indigo bush	<i>Dalea lanata</i>
	Indigo bush	<i>Dalea polyadenia</i>
	Indigo bush	<i>Dalea thompsonae</i>
	Indigo bush	<i>Dalea whitingii</i>
	Prairie clover	<i>Petalostemon candidum</i> var. <i>oligophyllum</i>
	Prairie clover	<i>Petalostemon flavescens</i>
	Prairie clover	<i>Petalostemon searlsiae</i>
	Loco weed	<i>Astragalus allochrous</i>
	Loco weed	<i>Astragalus americanus</i>
	Milkvetch	<i>Astragalus amphioxys</i>
	Milkvetch	<i>Astragalus amphioxys</i> var. <i>vesperinus</i>
	Loco weed	<i>Astragalus arctus</i>
	Loco weed	<i>Astragalus argophyllus</i>
	Loco weed	<i>Astragalus ceramicus</i> var. <i>imperfectus</i>
	Loco weed	<i>Astragalus cibaricus</i>
	Loco weed	<i>Astragalus cophorus</i> var. <i>caulescens</i>
	Loco weed	<i>Astragalus cyaneus</i>
	Loco weed	<i>Astragalus desperatus</i>
	Loco weed	<i>Astragalus diversifolium</i>
		<i>Astragalus gilensis</i>
	Spiny milkvetch	<i>Astragalus kentrophyta</i> var. <i>elatus</i>
	Spotted milkvetch	<i>Astragalus lentiginosus</i>
	Loco weed	<i>Astragalus lentiginosus</i> var. <i>diphysus</i>
		<i>Astragalus lentiginosus</i> var. <i>palans</i>
		<i>Astragalus lentiginosus</i> var. <i>vitreus</i>
		<i>Astragalus nuttallianus</i>
	Loco weed	<i>Astragalus pattersonii</i>
	Loco weed	<i>Astragalus preussii</i>
	Loco weed	<i>Astragalus sabulonum</i>
	Loco weed	<i>Astragalus sparsiflora</i>
	Milkvetch	<i>Astragalus subcinereus</i>
	Loco weed	<i>Astragalus thompsonae</i>
	Loco weed	<i>Astragalus wardii</i>
		<i>Astragalus zionis</i>

		<i>Oxytropis albiflora</i>
	Loco weed	<i>Oxytropis lambertii</i>
	Licorice	<i>Glycyrrhiza lepidota</i>
	Sweetvetch	<i>Hedysarum cinerascens</i>
	Sweetvetch	<i>Hedysarum utahense</i>
	Vetch	<i>Vicia americana</i>
	Wild pea	<i>Lathyrus arizonicus</i>
	Peavine	<i>Lathyrus leucanthus</i>
GERANIACEAE - Geraniums		
	Heron-bill, Filaree	<i>Erodium cicutarium</i>
	Geranium	<i>Geranium bicknellii</i>
	Geranium	<i>Geranium fremontii</i>
	Wild geranium	<i>Geranium richardsonii</i>
	Cicarta, alfilarea	<i>Geranium cicutarium</i>
LINACEAE - Flax		
	Flax	<i>Linum aristatum</i>
	Flax	<i>Linum lewisii</i>
	Flax	<i>Linum rigidum</i> var. <i>puberulum</i>
POLYGALACEAE - Milkworts		
	Milkwort	<i>Polygala acanthoclada</i>
	Milkwort	<i>Polygala subspinosa</i>
EUPHORBIACEAE - Spurges		
	Spurge	<i>Euphorbia fendleri</i>
	Spurge	<i>Euphorbia glyptosperma</i>
	Spurge	<i>Euphorbia parryi</i>
	Dove weed	<i>Croton texensis</i>
ANACARDIACEAE - Cashews		
	Smooth Sumac	<i>Rhus glabra</i>
	Poison-ivy	<i>Rhus radicans</i> var. <i>rydbergii</i>
	Poison sumac	<i>Rhus toxicodendron</i>
	Squawberry, skunkbush sumac	<i>Rhus trilobata</i>
	Squaw-bush	<i>Rhus trilobata</i> var. <i>simplicifolia</i>
	Utah squaw-bush	<i>Rhus utahensis</i>
ACERACEAE - Maples		
	Rocky mountain maple	<i>Acer glabrum</i> var. <i>neomexicanum</i>
	Bigtooth maple	<i>Acer grandidentatum</i>

## Appendix A

27

	Boxelder	<i>Acer negundo</i>
	Boxelder	<i>Acer negundo</i> var. <i>interius</i>
<b>RHAMNACEAE - Buckthorns</b>		
	Fendler ceanothus	<i>Ceanothus fendleri</i>
	Gray thorn	<i>Condalia lycioides</i> var. <i>canescens</i>
	Birch-leaf buckthorn	<i>Rhamnus betulaefolia</i>
	Buck-thorn	<i>Rhamnus betulaefolia</i> var. <i>obovata</i>
<b>VITACEAE - Grapes</b>		
	Woodbine	<i>Parthenocissus inserta</i>
	Woodbine	<i>Parthenocissus inserta</i> var. <i>vitacea</i>
<b>MALVACEAE - Mallows</b>		
	Prairie mallow	<i>Sidalcea neomexicana</i>
	Mallow	<i>Sphaeralcea coccinea</i>
	Mallow	<i>Sphaeralcea fendleri</i>
	Globe mallow	<i>Sphaeralcea grossulariaefolia</i> var. <i>pedata</i>
	Mallow	<i>Sphaeralcea leptophylla</i>
	Globe mallow	<i>Sphaeralcea marginata</i>
	Mallow	<i>Sphaeralcea parvifolia</i>
	Mallow	<i>Sphaeralcea rusbyi</i>
<b>GUTTIFERAE - St. Johnsworts</b>		
	St. Johnswort	<i>Hypericum formosum</i>
<b>TAMARICACEAE - Tamarix or salt cedar</b>		
	Tamarisk, salt cedar	<i>Tamarix pentandra</i>
<b>CISTACEAE - Rock rose</b>		
	Rush rose	<i>Helianthemum scoparium</i>
<b>VIOLACEAE - Violets</b>		
	Violet	<i>Viola canadensis</i>
	Violet	<i>Viola nephrophylla</i>
	Violet	<i>Viola purpurea</i>
<b>LOASACEAE - Loasas</b>		
	Blazing star	<i>Mentzelia albicaulis</i>
	Blazing star	<i>Mentzelia multiflora</i>
	Stickleaf	<i>Mentzelia pumila</i>
	Blazing star	<i>Mentzelia pumilla</i> var. <i>multiflora</i>
	Stickleaf	<i>Mentzelia veatchiana</i>

CACTACEAE - Cacti		
	Hedgehog cactus	<i>Echinocereus aggregata</i>
	Hedgehog cactus	<i>Echinocereus engelmannii</i>
	Hedgehog cactus	<i>Echinocereus fendleri</i>
	Hedgehog cactus	<i>Echinocereus mojavensis</i>
	Hedgehog cactus	<i>Echinocereus octacanthus</i>
	Cactus	<i>Sclerocactus parviflorus</i>
	Cactus	<i>Sclerocactus polyancistrus</i>
	Cactus	<i>Sclerocactus whipplei</i>
	Cactus	<i>Pediocactus simpsonii</i>
	Prickly pear	<i>Opuntia brachyclada</i>
	Prickly pear	<i>Opuntia erinacea</i> var. <i>hystricina</i>
	Prickly pear	<i>Opuntia erinacea</i> var. <i>rhodantha</i>
	Prickly pear	<i>Opuntia fragilis</i>
	Prickly pear	<i>Opuntia polycantha</i>
	Prickly pear	<i>Opuntia vaseyi</i>
ELAEAGNACEAE - Oleasters		
	Buffaloberry	<i>Shepherdia argentea</i>
	Buffaloberry	<i>Shepherdia canadensis</i>
	Buffaloberry	<i>Shepherdia rotundifolia</i>
ONAGRACEAE - Evening primrose		
	Willow weed	<i>Epilobium adenocaulon</i>
	Willow weed	<i>Epilobium angustifolium</i>
	Willow weed	<i>Epilobium californicum</i>
	Willow weed	<i>Epilobium occidentale</i>
	Willow weed	<i>Epilobium stramineum</i>
	Evening primrose	<i>Oenothera albicaulis</i>
	Evening primrose	<i>Oenothera caespitosa</i> var. <i>marginata</i>
	Primrose	<i>Oenothera cavernae</i>
	Evening primrose	<i>Oenothera decorticans</i>
	Evening primrose	<i>Oenothera decorticans</i> var. <i>condensata</i>
	Yellow evening primrose	<i>Oenothera hookeri</i>
	Lavender-leaved evening primrose	<i>Oenothera lavandulaefolia</i>
	Evening primrose	<i>Oenothera leptophylla</i>
	Evening primrose	<i>Oenothera longissima</i>

	Evening primrose	<i>Oenothera multijuga</i>
	Tall chylisma	<i>Oenothera multijuga</i> var. <i>orientalis</i>
	White evening primrose	<i>Oenothera pallida</i>
	Evening primrose	<i>Oenothera pterosperma</i>
	Evening primrose	<i>Oenothera runcinata</i>
	Evening primrose	<i>Oenothera scapiodea</i>
	Scapose evening primrose	<i>Pachylophus canescens</i>
		<i>Gayophytum lasiospermum</i>
<b>UMBELLIFERAE - Parsley and allies</b>		
	Sweetroot	<i>Osmorhiza obtusa</i>
		<i>Ligusticum porteri</i>
	Water hemlock	<i>Cicuta douglasii</i>
	Wafer parsnip	<i>Cymopterus fendleri</i>
		<i>Cymopterus globosus</i>
	Wafer parsnip	<i>Cymopterus newberryi</i>
		<i>Pteryxia calcarea</i>
		<i>Pseudocymopterus montanus</i>
	Angelica	<i>Angelica pinnata</i>
		<i>Cogswellia parryi</i>
<b>CORNACEAE - Dogwood</b>		
	Dogwood	<i>Cornus stolonifera</i>
<b>ERICACEAE - Heather</b>		
	Manzanita	<i>Arctostaphylos platyphylla</i>
	Manzanita	<i>Arctostaphylos pungens</i>
	Shinleaf	<i>Pyrola elliptica</i>
	Shinleaf	<i>Pyrola minor</i>
	Shinleaf	<i>Pyrola secunda</i>
<b>PRIMULACEAE - Primrose</b>		
	Rock jasmine	<i>Androsace diffusa</i>
	Rock jasmine	<i>Androsace subumbellata</i>
	Shooting star	<i>Androsace radicans</i>
	Shooting star	<i>Dodecatheon radicans</i>
	Primrose	<i>Primula incana</i>
	Primrose	<i>Primula specuicola</i>
<b>OLEACEAE - Olives and ashes</b>		
	Adelia	<i>Forestiera neomexicana</i>

	Single-leaf ash	<i>Fraxinus anomala</i>
GENTIANACEAE - Gentians		
		<i>Frasera speciosa</i>
		<i>Frasera utahensis</i>
	Gentian	<i>Gentiana affinis</i>
	Gentian	<i>Gentiana heterosepala</i>
	Deers-tongue	<i>Swertia radiata</i>
		<i>Swertia scopulina</i>
	Elkweed	<i>Swertia utahensis</i>
APOCYNACEAE - Dogbanes		
	Amsonia	<i>Amsonia eastwoodiana</i>
	Amsonia	<i>Amsonia tomentosa</i>
	Dogbane	<i>Apocynum androsaemifolium</i>
	Dogbane	<i>Apocynum cannabinum</i>
	Dogbane	<i>Apocynum suksdorfii</i> var. <i>angustifolium</i>
ASCLEPIADACEAE - Milkweed		
	Milkweed	<i>Asclepias labriformis</i>
	Milkweed	<i>Asclepias capricornu</i>
	Milkweed	<i>Asclepias cryptoceras</i>
	Milkweed	<i>Asclepias galioides</i>
	Milkweed	<i>Asclepias funastrum</i>
	Milkweed	<i>Asclepias latifolia</i>
	Milkweed	<i>Asclepias macrosperma</i>
	Milkweed	<i>Asclepias speciosa</i>
	Climbing milkweed	<i>Funastrum cynanthoides</i>
	Climbing milkweed	<i>Funastrum heterophyllum</i>
CONVOLVACEAE - Morning-glories		
	Morning-glory	<i>Cressa minima</i>
POLEMONIACEAE - Phlox		
	Phlox	<i>Phlox austromontana</i>
	Phlox	<i>Phlox canescens</i>
	Phlox	<i>Phlox longifolia</i>
	Phlox	<i>Phlox stansburyi</i>
		<i>Microsteris gracilis</i>
		<i>Navarretia breweri</i>

		<i>Navarretia schottii</i>
		<i>Navarretia setosissima</i>
		<i>Langloisia setosissima</i>
		<i>Linanthus harknessii</i>
	Skyrocket, Fox-fire	<i>Gilia aggregata</i>
	Scarlet gilia	<i>Gilia aggregata</i> var. <i>arizonica</i>
	Gilia	<i>Gilia congesta</i>
	Gilia	<i>Gilia gunnisoni</i>
	Gilia	<i>Gilia leptomeria</i>
	Gilia	<i>Gilia longiflora</i>
	Gilia	<i>Gilia ochroleuca</i>
	Gilia	<i>Gilia polycladon</i>
	Gilia	<i>Gilia pumila</i>
	Gilia	<i>Gilia sinuata</i>
	Gilia	<i>Gilia spergulifolia</i>
	Gilia	<i>Gilia subnuda</i>
	Polemonium	<i>Polemonium foliosissimum</i>
	Polemonium	<i>Polemonium pulcherrimum</i>
<b>HYDROPHYLLACEAE - Waterleaf</b>		
	Waterleaf	<i>Hydrophyllum fendleri</i>
	Phacelia	<i>Phacelia corrugata</i>
	Phacelia	<i>Phacelia crenulata</i>
	Phacelia	<i>Phacelia demissa</i>
	Phacelia	<i>Phacelia heterophylla</i>
	Phacelia	<i>Phacelia integrifolia</i>
	Phacelia	<i>Phacelia linearis</i>
	Phacelia	<i>Phacelia pulchella</i> var. <i>gooddingii</i>
	Phacelia	<i>Phacelia sericea</i>
		<i>Eucrypta micrantha</i>
<b>BORAGINACEAE - Borage</b>		
	Borage	<i>Coldenia hispidissima</i>
	Heliotrope	<i>Heliotropium convulvulaceum</i>
		<i>Pectocarya recurvata</i>
	Stickseed	<i>Lappula floribunda</i>
	Stickseed	<i>Lappula occidentalis</i>
	Stickseed	<i>Lappula redowskii</i>

	Bluebells	<i>Mertensia franciscana</i>
		<i>Cryptantha circumscissa</i>
		<i>Cryptantha crassisejala</i>
		<i>Cryptantha fendleri</i>
		<i>Cryptantha flava</i>
		<i>Cryptantha jamesii</i>
		<i>Cryptantha leucophaea</i>
		<i>Cryptantha micrantha</i>
		<i>Cryptantha nevadensis</i>
		<i>Cryptantha pattersonii</i>
		<i>Cryptantha pectocarya</i>
		<i>Cryptantha pterocarya</i>
		<i>Cryptantha recurvata</i>
		<i>Cryptantha wetherillii</i>
		<i>Oreocarya confertifolia</i>
		<i>Oreocarya suffruticosa</i>
	Forget-me-not	<i>Myosotis scorpioides</i>
VERBENACEAE - Verbena		
		<i>Verbena bracteosa</i>
MENTHACEAE - Mint		
	Hoarhound	<i>Marrubium vulgare</i>
	Catnip	<i>Nepeta catana</i>
	Dragonhead	<i>Moldavica parviflora</i>
	Sage	<i>Salvia lanceaefolia</i>
		<i>Poliomintha incana</i>
		<i>Monardella odoratissima</i>
		<i>Monardella parvifolia</i>
		<i>Monardella rubella</i>
	Mint	<i>Mentha penardi</i>
SOLANACEAE - Potatoes and relatives		
	Wolf-berry	<i>Lycium andersonii</i>
	Wolf-berry	<i>Lycium torreyi</i>
		<i>Chamaesaracha coronopus</i>
	Groundcherry	<i>Physalis fendleri</i>
	Groundcherry	<i>Physalis hederifolia</i>
	Black nightshade	<i>Solanum nigrum</i>



	Nighthshade	<i>Solanum triflorum</i>
	Sacred datura, jimson weed, Tolguacha	<i>Datura meteloides</i>
	Tobacco	<i>Nicotiana attenuata</i>
	Tobacco	<i>Nicotiana trigonophylla</i>
SCROPHULARIACEAE - Figworts		
	Snapdragon	<i>Antirrhinum nuttallianum</i>
		<i>Collinsia parviflora</i>
		<i>Collinsia torreyi</i>
	Penstemon	<i>Penstemon ambiguus</i>
	Penstemon	<i>Penstemon barabtus</i> var. <i>torreyi</i>
	Penstemon	<i>Penstemon brevicaulus</i>
	Penstemon	<i>Penstemon bridgesii</i>
	Penstemon	<i>Penstemon comarrhenus</i>
	Penstemon	<i>Penstemon cyanocaulis</i>
	Eaton penstemon	<i>Penstemon eatoni</i>
	Penstemon	<i>Penstemon jamesii</i> var. <i>ophianthus</i>
	Penstemon	<i>Penstemon liarioides</i>
	Penstemon	<i>Penstemon pachyphyllus</i>
	Penstemon	<i>Penstemon palmeri</i>
	Penstemon	<i>Penstemon strictus</i>
	Penstemon	<i>Penstemon subglaber</i>
	Penstemon	<i>Penstemon utahensis</i>
	Watson penstemon	<i>Penstemon watsonii</i>
	Penstemon	<i>Penstemon whippleanus</i>
	Monkeyflower	<i>Mimulus cardinalis</i>
	Monkeyflower	<i>Mimulus eastwoodiae</i>
	Monkeyflower	<i>Mimulus guttatus</i>
	Speedwell	<i>Veronica americana</i>
	Painted-cup	<i>Castilleja angustifolia</i>
	Painted-cup	<i>Castilleja chromosa</i>
	Painted-cup	<i>Castilleja confusa</i>
	Painted-cup	<i>Castilleja exilis</i>
	Painted-cup, indian paintbrush	<i>Castilleja linariaefolia</i>
	Club-flower	<i>Cordylanthus wrightii</i>
	Club-flower	<i>Cordylanthus parviflora</i>

Appendix A

	Woodbetony	<i>Pedicularis centhranthera</i>
OROBANCHACEAE - Broomrape		
	Broomrape	<i>Orobanche californica</i>
	Broomrape	<i>Orobanche fasciculata</i>
	Broomrape	<i>Orobanche multiflora</i>
PLANTAGINACEAE - Plantains		
	Plantain	<i>Plantago eriopoda</i>
	Plantain	<i>Plantago purshii</i>
	Plantain	<i>Plantago xerodea</i>
RUBIACEAE - Madders		
	Bedstraw	<i>Galium aparine</i>
	Bedstraw	<i>Galium boreale</i>
	Bedstraw	<i>Galium stellatum</i> var. <i>eremicum</i>
CAPRILFOLIACEAE - Honeysuckle		
	Honeysuckle	<i>Lonicera involucrata</i>
	Honeysuckle	<i>Lonicera utahensis</i>
	Elderberry	<i>Sambucus caerulea</i>
	Elderberry	<i>Sambucus racemosa</i> var. <i>microbotrys</i>
	Snowberry	<i>Symphoricarpos longiflorus</i>
	Snowberry	<i>Symphoricarpos oreophilus</i>
	Snowberry	<i>Symphoricarpos vaccinioides</i>
CAMPANULACEAE - Bellflower		
	Bellflower	<i>Campanula parryi</i>
	Lobelia	<i>Lobelia cardinalis</i>
	Lobelia	<i>Lobelia</i> sp. (probably <i>splendens</i> )
COMPOSITAE - Composite flowers		
		<i>Brickellia longifolia</i>
		<i>Brickellia scabra</i>
	Grindelia	<i>Grindelia fastigiata</i>
	Grindelia	<i>Grindelia squarrosa</i>
		<i>Vanclevea stylosa</i>
	Matchweed	<i>Gutierrezia divaricata</i>
	Snakeweed	<i>Gutierrezia lucida</i>
	Matchweed	<i>Gutierrezia microcephala</i>
	Snakeweed	<i>Gutierrezia sarothrae</i>
	Golden-head	<i>Acamptopappus sphaerocephalus</i>

## Appendix A

	Golden aster	<i>Chrysopsis foliosa</i>
	Golden aster	<i>Chrysopsis jonesii</i>
	Golden aster	<i>Chrysopsis villosa</i>
	Golden aster	<i>Chrysopsis viscida</i>
	Goldenrod	<i>Solidago altissima</i>
	Goldenrod	<i>Solidago canadensis</i>
	Goldenrod	<i>Solidago ciliosa</i>
	Goldenrod	<i>Solidago decumbens</i>
	Goldenrod	<i>Solidago elongata</i>
	Goldenrod	<i>Solidago occidentalis</i>
	Goldenrod	<i>Solidago parryi</i>
	Goldenrod	<i>Solidago petradoria</i>
	Goldenrod	<i>Solidago sparsiflora</i>
	Goldenrod	<i>Solidago trinervata</i>
		<i>Aplopappus acradenius</i>
		<i>Aplopappus drummondii</i>
		<i>Aplopappus gracilis</i>
		<i>Aplopappus heterophyllus</i>
	Turpentine-brush	<i>Aplopappus laricifolius</i>
		<i>Aplopappus nuttallii</i>
		<i>Aplopappus scopulorum</i> var. <i>hirtellus</i>
		<i>Chrysothamnus greenei</i> var. <i>filifolius</i>
	Rabbitbrush	<i>Chrysothamnus newberryi</i>
		<i>Chrysothamnus nauseosus</i> var. <i>bigelovii</i>
		<i>Chrysothamnus viscidiflorus</i> var. <i>stenophyllus</i>
		<i>Townsendia arizonica</i>
		<i>Townsendia exscapa</i>
		<i>Townsendia incana</i>
		<i>Townsendia strigosa</i>
	Aster	<i>Aster abatus</i>
	Aster	<i>Aster adscendens</i>
	Aster	<i>Aster campestris</i> var. <i>bloomeri</i>
	Aster	<i>Aster canescens</i>
	Aster	<i>Aster cichoriaceus</i>

## Appendix A

36

	Aster	<i>Aster commutatus</i> var. <i>polycephalus</i>
	Aster	<i>Aster foliaceus</i> var. <i>frondeus</i>
	Aster	<i>Aster frondosus</i>
	Aster	<i>Aster glaucodes</i>
	Aster	<i>Aster hirtifolius</i>
	Aster	<i>Aster leiodes</i>
	Aster	<i>Aster leucelene</i>
	Aster	<i>Aster spinosus</i>
	Aster	<i>Aster tanacetifolius</i>
	Fleabane	<i>Erigeron argentatus</i>
	Fleabane	<i>Erigeron arenarioides</i>
	Fleabane	<i>Erigeron bellidiastrum</i>
	Fleabane	<i>Erigeron caespitosus</i>
	Fleabane	<i>Erigeron canadensis</i>
	Fleabane	<i>Erigeron concinnus</i>
	Fleabane	<i>Erigeron divergens</i>
	Fleabane	<i>Erigeron engelmanni</i>
	Fleabane	<i>Erigeron flagellaris</i>
	Fleabane	<i>Erigeron glabellus</i>
	Fleabane	<i>Erigeron lonchophyllus</i>
	Fleabane	<i>Erigeron nudiflorus</i>
	Fleabane	<i>Erigeron speciosus</i> var. <i>macranthus</i>
	Fleabane	<i>Erigeron strigosus</i>
	Fleabane	<i>Erigeron subcanescens</i>
	Fleabane	<i>Erigeron utahensis</i>
	Baccharis	<i>Baccharis emoryi</i>
	Baccharis	<i>Baccharis glutinosa</i>
	Arrowweed	<i>Pluchea sericea</i>
	Pussytoes	<i>Antennaria aprica</i>
	Pussytoes	<i>Antennaria microphylla</i>
	Cudweed	<i>Gnaphalium chilense</i>
	Cudweed	<i>Gnaphalium palustre</i>
	Marsh-elder	<i>Iva axillaris</i>
		<i>Oxytenia acerosa</i>
	Ragweed	<i>Ambrosia aptera</i>
	Ragweed	<i>Ambrosia artemisiaefoliae</i>

## Appendix A

37

	Bursage	<i>Franseria acanthicarpa</i>
	Cocklebur	<i>Xanthium pennsylvanicum</i>
	Cocklebur	<i>Xanthium saccharatum</i>
	Mules-ears	<i>Wyethia amplexicaulis</i>
	Mules-ears	<i>Wyethia arizonica</i>
	Mules-ears	<i>Wyethia scabra</i>
		<i>Viguiera multiflora</i>
	Sunflower	<i>Helianthus annuus</i>
	Sunflower	<i>Helianthus anomalus</i>
	Sunflower	<i>Helianthus cusickii</i>
	Sunflower	<i>Helianthus petiolaris</i>
	Brittlebrush	<i>Encelia frutescens</i> var. <i>resinosa</i>
	Desert sunflower	<i>Geraea canescens</i>
		<i>Enceliopsis argophylla</i>
		<i>Helianthella microcephala</i>
		<i>Thelesperma subnudum</i>
	Balsamroot	<i>Balsamorhiza sagittata</i>
	Paperflower	<i>Psilotrophe sparsiflora</i>
		<i>Psilotrophe tagetina</i>
	Desert marigold	<i>Baileya multiradiata</i>
	Desert marigold	<i>Baileya pleniradiata</i>
		<i>Laphamia palmeri</i>
		<i>Laphamia stansburii</i>
	Hymenopappus	<i>Hymenopappus eriopodus</i>
		<i>Hymenopappus filifolius</i>
		<i>Hymenopappus lugens</i>
		<i>Hymenopappus tomentosus</i>
		<i>Chaenactis douglasii</i>
	False yarrow	<i>Chaenactis macrantha</i>
		<i>Chaenactis stevioides</i>
	Yellow ragweed	<i>Bahia dissecta</i>
		<i>Bahia nudicaulis</i>
		<i>Bahia oblongifolia</i>
		<i>Bahia ourolepsis</i>
		<i>Hymenoxys acaulis</i> var. <i>arizonica</i>
		<i>Hymenoxys acaulis</i> var. <i>ivesiana</i>

## Appendix A

	Rubber-plant	<i>Hymenoxys leptoclada</i>
	Rubber-plant	<i>Hymenoxys richardoni</i>
	Rubber-plant	<i>Hymenoxys scaposa</i> var. <i>linearis</i>
	Orange sneezeweed	<i>Helenium hoopesii</i>
	Blanket-flower	<i>Gaillardia pinnatifida</i>
	Blanket-flower	<i>Gaillardia spathulata</i>
		<i>Dyssodia acerosa</i>
		<i>Dyssodia pentachaeta</i>
	False dog fennel	<i>Dyssodia thurberi</i>
	Yarrow	<i>Achillea lanulosa</i>
	Low sagebrush	<i>Artemisia arbuscula</i>
	Wormwood	<i>Artemisia biennis</i>
	Wormwood	<i>Artemisia bigelovii</i>
	Sagebrush	<i>Artemisia cana</i>
	Wormwood	<i>Artemisia dracunculoides</i>
	Sand sagebrush	<i>Artemisia filifolia</i>
	Wormwood	<i>Artemisia forwoodii</i>
	Mountain sagebrush	<i>Artemisia frigida</i>
	Sagebrush	<i>Artemisia ludoviciana</i> var. <i>mexicana</i>
	Bud sagebrush	<i>Artemisia spinescens</i>
	Sagebrush	<i>Artemisia tridentata</i>
	Wormwood	<i>Artemisia tripartita</i>
	Arnica	<i>Arnica cordifolia</i>
	Horsebrush	<i>Tetradymia canescens</i>
	Horsebrush	<i>Tetradymia glabrata</i>
	Groundsel	<i>Senecio accedens</i>
	Groundsel	<i>Senecio ambrosioides</i>
	Groundsel	<i>Senecio douglasii</i> var. <i>monoensis</i>
	Groundsel	<i>Senecio millelobatus</i>
	Groundsel	<i>Senecio multicapitatus</i>
	Groundsel	<i>Senecio multilobatus</i>
	Groundsel	<i>Senecio neomexicanus</i>
	Groundsel	<i>Senecio spartioides</i>
	Groundsel	<i>Senecio tridenticulatus</i>
	Groundsel	<i>Senecio uintahensis</i>
	Thistle	<i>Cirsium andersonii</i>

## Appendix A

	Thistle	<i>Cirsium arizonicum</i>
	Thistle	<i>Cirsium canescens</i>
	Thistle	<i>Cirsium eatoni</i>
	Thistle	<i>Cirsium neomexicanum</i>
	Thistle	<i>Cirsium nidulum</i>
	Thistle	<i>Cirsium pulchellum</i>
	Thistle	<i>Cirsium rydbergii</i>
		<i>Stephanomeria exigua</i>
		<i>Stephanomeria parryi</i>
		<i>Stephanomeria pauciflora</i>
	Flowering straw	<i>Stephanomeria tenuifolia</i>
	Desert dandelion	<i>Malacothrix californica</i> var. <i>glabrata</i>
		<i>Malacothrix fendleri</i>
	Desert dandelion	<i>Malacothrix glabrata</i>
		<i>Malacothrix sonchoides</i>
		<i>Malacothrix torreyi</i>
		<i>Calycoseris parryi</i>
	Dandelion	<i>Leontodon lyratum</i>
	Sowthistle	<i>Sonchus asper</i>
	Sowthistle	<i>Sonchus oleraceus</i>
	Sowthistle	<i>Sonchus scabra</i>
		<i>Lygodesmia grandiflora</i>
		<i>Lygodesmia spinosa</i>
	Mountain dandelion	<i>Agoseris glauca</i>
	Mountain dandelion	<i>Agoseris gracilens</i> var. <i>greenei</i>
	Mountain dandelion	<i>Agoseris taraxacifolia</i>
	Hawks-beard	<i>Agoseris intermedia</i>
	Wild lettuce	<i>Latuca serriola</i>
	Wire lettuce	<i>Ptiloria exigua</i>
	Wire lettuce	<i>Ptiloria tenuifolia</i>
	<b>Algae collected in Glen Canyon</b>	
	<b>Chlorophyta</b>	
	<b>CYLINDROCAPSACEAE - Ulotrichales</b>	
		<i>Cylindrocapsa gemminella</i>

CHAETOPHORACEAE		<i>Stigioclonium attenuatum</i>
		<i>Chaetophora elegans</i>
CLADOPHORACEAE - Cladophorales		
		<i>Cladophora fracta</i>
		<i>Cladophora glomerata</i>
		<i>Cladophora kuetzingiana</i>
OEDOGONIANCEAE - Oedogoniales		
		<i>Oedogonium</i> spp.
HYDRODICTYACEAE		
		<i>Pediastrum intergrum</i>
SCENEDESMACEAE		
		<i>Scenedesmus bijuga</i>
		<i>Scenedesmus quadricauda</i>
OOCYSTIACEAE		
		<i>Ankistrodesmus falcatus</i>
		<i>Ankistrodesmus spiralis</i>
		<i>Kirchneriella lunaris</i> var. <i>dianae</i>
ZYGNEMACEAE - Zygnematales		
		<i>Zygnema cruciatum</i>
		<i>Zygnema insignis</i>
		<i>Zygnema</i> spp.
		<i>Spirogyra deminina</i>
		<i>Spirogyra porticalis</i>
		<i>Spirogyra silvicola</i>
		<i>Spirogyra quadrata</i>
		<i>Spirogyra weberi</i>
		<i>Spirogyra</i> spp.
		<i>Mougeotia capucina</i>
		<i>Mougeotia genuflexa</i>
		<i>Mougeotia parvula</i>
DESMIDIACEAE		
		<i>Closterium acerosum</i>
		<i>Cosmarium turpini</i>
		<i>Cosmarium</i> spp.



<b>Cyanophyta - Blue-green algae</b>		
CHROOCOCCACEAE - Chroococcales		
		<i>Aphanocapsa elachista</i>
OSCILLATORIACEAE - Hormogonales		
		<i>Oscillatoria animalis</i>
		<i>Lyngbya ochraceae</i>
		<i>Microcoleus paludosus</i>
NOSTOCACEA		
		<i>Anabaena</i> sp.
<b>Chrysophyta</b>		
BACILLARIEAE - Diatoms		
COSCINODISCACEAE - Centrales		
		<i>Melosira</i> sp.
TABELLARIACEAE - Pennales		
		<i>Tabellaria</i> spp.
FRAGILARIACEAE		
		<i>Synedra ulna</i>
		<i>Fragilaria</i> spp.
		<i>Astrionelia formosa</i>
MERIDIONACEAE		
		<i>Meridion circulare</i>
EUNOTIACEAE		
		<i>Eunotia</i> spp.
ACHANTHACEAE		
		<i>Achnanthes</i> spp.
NAVICULACEAE		
		<i>Navicula lanceolata</i>
		<i>Navicula rhynchocephala</i>
		<i>Navicula</i> spp.
		<i>Pinnularia viridis</i>
		<i>Mastogloea smithii</i> var.
		<i>Gomphonema constrictum</i>
		<i>Gomphonema angustatum</i> var.
		<i>Gomphonema</i> spp.
CYMBELLACEAE		

Appendix A

		<i>Cymbella</i> spp.
		<i>Amorpha ovalis</i>
		<i>Rhopalodia gibba</i>
<b>SURIRELLACEAE</b>		
		<i>Surirella ovata</i>

<b>Avifauna of Glen Canyon</b>		
<b>AVES (class) - Birds</b>		
<b>Podicipediformes (order) - Grebes</b>		
<b>PODICIPEDIDAE - Grebes</b>		
	Eared grebe	<i>Podiceps caspicus californicus</i>
	Pied-billed grebe	<i>Podilymbus podiceps podiceps</i>
	Western grebe	<i>Aechmophorus occidentalis</i>
<b>Pelecaniformes (order) - Pelicans</b>		
<b>PELECANIDAE - Pelicans</b>		
	White pelican	<i>Pelecanus erythrorhynchos</i>
<b>PHALACROCORACIDAE - Cormorants</b>		
	Double-crested cormorant	<i>Phalacrocorax auritus</i>
<b>Ciconiiformes (order) - Herons, storks, ibises, and allies</b>		
<b>ARDEIDAE - Herons and bitterns</b>		
	Great blue heron	<i>Ardea herodias treganzai</i>
	Snowy egret	<i>Leucophoyx thula brewsteri</i>
	Black-crowned night heron	<i>Nycticorax nycticorax hoactli</i>
	American bittern	<i>Botaurus lentiginosus</i>
<b>THRESKIORNITHIDAE - Ibises and spoonbills</b>		
	White-faced ibis	<i>Plegadis chihi</i>
<b>Anseriformes (order) - Screamers, swans, geese, ducks</b>		
<b>ANATIDAE - Swans, geese and ducks</b>		
	Whistling swan	<i>Olor columbianus</i>
	Canada goose	<i>Branta canadensis</i>
	Snow goose	<i>Chen hyperborea</i>
	Mallard	<i>Anas platyrhynchos platyrhynchos</i>
	Gadwall	<i>Anas streptera</i>
	Pintail	<i>Anas acuta</i>
	Green-winged teal	<i>Anas carolinensis</i>
	Blue-winged teal	<i>Anas discors discors</i>
	Cinnamon teal	<i>Anas cyanoptera septentrionalium</i>
	American widgeon	<i>Mareca americana</i>

## Appendix B

44

	Shoveler	<i>Spatula clypeata</i>
	Redhead	<i>Aythya americana</i>
	Canvas-back	<i>Aythya valisineria</i>
	Lesser scaup duck	<i>Aythya affinis</i>
	Common golden-eye	<i>Bucephala clangula americana</i>
	Bufflehead	<i>Bucephala albeola</i>
	Ruddy duck	<i>Oxyura jamaicensis rubida</i>
	Common merganser	<i>Mergus merganser</i>
	Red-breasted merganser	<i>Mergus serrator serrator</i>
<b>Falconiformes (order) - Vultures, hawks, and falcons</b>		
CATHARTIDAE - American vultures		
	Turkey vulture	<i>Cathartes aura teter</i>
ACCIPITRIDAE - Hawks and harriers		
	Goshawk	<i>Accipiter gentilis</i>
	Sharp-shinned hawk	<i>Accipiter striatus velox</i>
	Cooper hawk	<i>Accipiter cooperii</i>
	Red-tailed hawk	<i>Buteo jamaicensis kriderii</i>
	Red-tailed hawk	<i>Buteo jamaicensis calurus</i>
	Red-shouldered hawk	<i>Buteo lineatus elegans</i>
	Swainson hawk	<i>Buteo swainsoni</i>
	Ferruginous hawk	<i>Buteo regalis</i>
	Golden eagle	<i>Aquila chrysaetos canadensis</i>
	Bald eagle	<i>Haliaeetus leucocephalus</i>
	Marsh hawk	<i>Circus cyaneus hudsonius</i>
FALCONIDAE - Caracaras and falcons		
	Prairie falcon	<i>Falco mexicanus</i>
	Duck hawk	<i>Falco peregrinus anatum</i>
	Pigeon hawk	<i>Falco columbarius</i>
	Sparrow hawk	<i>Falco sparverius sparverius</i>
<b>Galliformes (order) - Gallinaceous birds</b>		
TETRAONIDAE - Grouse and ptarmigans		
	Blue grouse	<i>Dendragapus obscurus obscurus</i>
	Sage grouse	<i>Centrocercus urophasianus</i>
PERDICIDAE - Partridges and quails		

	Gambel quail	<i>Lophortyx gambelii gambelii</i>
<b>GAVIIDAE - Loons</b>		
	Common loon	<i>Gavia immer</i>
<b>PHASIANIDAE - Chukar</b>		
	Chukar	<i>Alectoris graeca</i>
<b>Gruiformes (order) - Cranes, rails, and allies</b>		
<b>PERDICIDAE - Rails, gallinules and coots</b>		
	Virginia rail	<i>Rallus limicola limicola</i>
	Sora	<i>Porzana carolina</i>
	American coot (Mud hen)	<i>Fulica americana americana</i>
<b>Charadriiformes (order) - Shore birds, gulls, and allies</b>		
<b>CHARADRIIDAE - Plovers, turnstones, and surf-birds</b>		
	Killdeer	<i>Charadrius vociferus vociferus</i>
<b>SCOLOPACIDAE - Woodcock, snipe, and sandpipers</b>		
	Long-billed curlew	<i>Numenius americanus americanus</i>
	Common snipe	<i>Capella gallinago delicata</i>
	Solitary sandpiper	<i>Tringa solitaria cinnamomea</i>
	Spotted sandpiper	<i>Actitus macularia</i>
	Willet	<i>Catoptrophorus semipalmatus inornatus</i>
	Greater yellowlegs	<i>Totanus melanoleucus</i>
	Lesser yellowlegs	<i>Totanus flavipes</i>
	Baird sandpiper	<i>Erolia bairdii</i>
	Least sandpiper	<i>Erolia minutilla</i>
	Long-billed dowitcher	<i>Limnodromus scolopaceus</i>
	Western sandpiper	<i>Ereunetes mauri</i>
<b>RECURVIROSTRIDAE - Avocets and stilts</b>		
	American avocet	<i>Recurvirostra americana</i>
<b>PHALAROPODIDAE - Phalaropes</b>		
	Red phalarope	<i>Phalaropus fulicarius</i>
	Wilson phalarope	<i>Steganopus tricolor</i>
	Northern phalarope	<i>Lobipes lobatus</i>
<b>LARIDAE - Gulls and terns</b>		
	California gull	<i>Larus californicus</i>
	Ring-billed gull	<i>Larus delawarensis</i>

	Franklin gull	<i>Larus pipixcan</i>
	Bonaparte gull	<i>Larus philadelphia</i>
	Black tern	<i>Chlidonias niger surinamensis</i>
<b>Columbiformes (order) - Sand-grouse, pigeons, and doves</b>		
COLUMBIDAE - Pigeons and doves		
	Band-tailed pigeon	<i>Columba fasciata fasciata</i>
	Mourning dove	<i>Zenaidura macroura marginella</i>
<b>Cuculiformes (order) - Cuckoos and allies</b>		
CUCULIDAE - Cuckoos, roadrunners, and anis		
	Yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>
	Roadrunner	<i>Geococcyx californianus</i>
<b>Stringiformes (order) - Owls</b>		
TYTONIDAE - Barn owls		
	Barn owl	<i>Tyto alba pratincola</i>
STRINGIDAE - Typical owls		
	Screech owl	<i>Otus asio mycophilus</i>
	Flammulated owl	<i>Otus flammeolus flammeolus</i>
	Great Horned owl	<i>Bubo virginianus</i>
	Pygmy owl	<i>Glaucidium gnoma californicum</i>
	Burrowing owl	<i>Speotyto cunicularia hypugaeae</i>
	Spotted owl	<i>Strix occidentalis lucida</i>
	Long-eared owl	<i>Asio otus wilsonianus</i>
	Short-eared owl	<i>Asio flammeus flammeus</i>
	Saw-whet owl	<i>Aegolius acadicus</i>
<b>Caprimulgiformes (order) - Goatsuckers and allies</b>		
CAPRIMULGIDAE - Goatsuckers		
	Poor-will	<i>Phalaenoptilus nuttalli nuttalli</i>
	Pacific nighthawk	<i>Chordeiles minor hesperis</i>
	Western nighthawk	<i>Chordeiles minor henryi</i>
<b>Apodiformes (order) - Swifts and hummingbirds</b>		
APODIDAE - Swifts		

	White-throated swift	<i>Aeronautes saxatalis saxitalis</i>
<b>TROCHILIDAE - Hummingbirds</b>		
	Black-chinned hummingbird	<i>Archilochus alexandri</i>
	Broad-tailed hummingbird	<i>Selasphorus platycercus platycercus</i>
	Rufous hummingbird	<i>Selasphorus rufus</i>
	Calliope hummingbird	<i>Stellula calliope</i>
	Costa's hummingbird	<i>Calypte costae</i>
<b>Coraciiformes (order) - Kingfishers and allies</b>		
<b>ALCEDINIDAE - Kingfishers</b>		
	Belted kingfisher	<i>Megaceryle alcyon caurina</i>
<b>Piciformes (order) - Woodpeckers and allies</b>		
<b>PICIDAE - Woodpeckers</b>		
	Red-shafted flicker	<i>Colaptes cafer collaris</i>
	Pileated woodpecker	<i>Dryocopus pileatus picinus</i>
	Acorn woodpecker	<i>Melanerpes formicivorus formicivorus</i>
	Lewis woodpecker	<i>Asyndesmus lewis</i>
	Yellow-bellied sapsucker	<i>Sphyrapicus varius nuchalis</i>
	Williamson sapsucker	<i>Sphyrapicus thyroideus nataliae</i>
	Hairy woodpecker	<i>Dendrocopos villosus leucothorectis</i>
	Downy woodpecker	<i>Dendrocopos pubescens leucurus</i>
<b>Passeriformes (order) - Perching birds</b>		
<b>TYRANNIDAE - Tyrant flycatchers</b>		
	Eastern kingbird	<i>Tyrannus tyrannus</i>
	Western kingbird	<i>Tyrannus verticalis</i>
	Cassin kingbird	<i>Tyrannus vociferans vociferans</i>
	Scissor-tailed flycatcher	<i>Muscivora forficata</i>
	Ash-throated flycatcher	<i>Myiarchus cinerascens cinerascens</i>
	Black phoebe	<i>Sayornis nigricans semiatra</i>
	Say phoebe	<i>Sayornis saya saya</i>
	Traill flycatcher	<i>Empidonax traillii brewsteri</i>
	Traill flycatcher	<i>Empidonax traillii extimus</i>
	Dusky flycatcher	<i>Empidonax oberholseri</i>
	Gray flycatcher	<i>Empidonax wrighti</i>

## Appendix B

	Western flycatcher	<i>Empidonax difficillis hellmayri</i>
	Western wood pewee	<i>Contopus sordidulus veliei</i>
	Olive-sided flycatcher	<i>Nuttallornis borealis</i>
ALAUDIDAE - Larks		
	Horned lark	<i>Eremophila alpestris leucolaema-occidentalis</i>
HIRUNDINIDAE - Swallows		
	Violet-green swallow	<i>Tachycineta thalassina lepida</i>
	Tree swallow	<i>Iridoprocne bicolor</i>
	Bank swallow	<i>Riparia riparia riparia</i>
	Rough-winged swallow	<i>Stelgidopteryx ruficollis serripennis</i>
	Barn swallow	<i>Hirundo rustica erythrogaster</i>
	Cliff swallow	<i>Petrochelidon pyrrhonota pyrrhonota</i>
CORVIDAE - Jays, magpies and crows		
	Steller jay	<i>Cyanocitta stelleri maculophya</i>
	Scrub jay	<i>Aphelocoma coerulescens woodhousei</i>
	Black-billed magpie	<i>Pica pica hudsonia</i>
	Common raven	<i>Corvus corax sinuatus</i>
	Common crow	<i>Corvus brachyrhynchos hesperis</i>
	Pinyon jay	<i>Gymnorhinus cyanocephala</i>
	Clark nutcracker	<i>Nucifraga columbiana</i>
PARIDAE - Titmice, verdins and bush-tits		
	Black-capped chickadee	<i>Parus atricapillus nevadensis</i>
	Mountain chickadee	<i>Parus gambeli gambeli</i>
	Plain titmouse	<i>Parus inornatus ridgwayi</i>
	Common bush-tit	<i>Psaltriparus minimus plumbeus</i>
SITTIDAE - Nuthatches		
	White-breasted nuthatch	<i>Sitta carolinensis nelsoni</i>
	Red-breasted nuthatch	<i>Sitta canadensis</i>
	Black-eared nuthatch	<i>Sitta pygmaea melanotis</i>
CERHIIDAE - Creepers		
	Brown creeper	<i>Certhia familiaris montana</i>
CINCLIDAE - Dippers		
	Dipper (Water ouzel)	<i>Cinclus mexicanus unicolor</i>
TROGLODYTIDAE - Wrens		
	House wren	<i>Troglodytes aedon parkmanii</i>



	Bewick wren	<i>Thryomanes bewicki eremophilus</i>
	Long-billed marsh wren	<i>Telmatodytes palustris plesius</i>
	Canyon wren	<i>Catherpes mexicanus conspersus</i>
	Rock wren	<i>Salpinctes obsoletus obsoletus</i>
MIMIDAE - Mockingbirds and thrashers		
	Mockingbird	<i>Mimus polyglottos leucopterus</i>
	Catbird	<i>Dumetella carolinensis</i>
	Bendire thrasher	<i>Toxostoma bendirei</i>
	Sage thrasher	<i>Oreoscoptes montanus</i>
TURDIDAE - Thrushes, solitaires, and bluebirds		
	Robin	<i>Turdus migratorius propinquus</i>
	Hermit thrush	<i>Hylocichla guttata</i>
	Swainson's thrush	<i>Hylocichla ustulata</i>
	Western bluebird	<i>Sialia mexicana bairdi</i>
	Mountain bluebird	<i>Sialia currucoides</i>
	Townsend solitaire	<i>Myadestes townsendi</i>
SYLVIDAE - Gnatcatchers and kinglets		
	Blue-gray gnatcatcher	<i>Poliophtila caerulea amoenissima</i>
	Ruby-crowned kinglet	<i>Regulus calendula cineraceus</i>
	Golden-crowned kinglet	<i>Regulus satrapa</i>
MOTACILLIDAE - Wagtails and pipits		
	Water pipit	<i>Anthus spinoletta</i>
BOMBYCILLIDAE - Waxwings		
	Cedar waxwing	<i>Bombycilla cedrorum</i>
PTILOGONATIDAE - Silky flycatchers		
	Phainopepla	<i>Phainopepla nitens lepida</i>
LANIIDAE - Shrikes		
	Northern shrike	<i>Lanius excubitor invictus</i>
	Loggerhead shrike	<i>Lanius ludovicianus gambeli</i>
STURNIDAE - Starlings		
	Starling	<i>Sturnus vulgaris vulgaris</i>
VIREONIDAE - Vireos		
	Gray vireo	<i>Vireo vicinior</i>
	Solitary vireo	<i>Vireo solitarius cassinii</i>
	Solitary vireo	<i>Vireo solitarius plumbeus</i>
	Warbling vireo	<i>Vireo gilvus swainsoni</i>

## Appendix B

50

PARULIDAE - Wood warblers		
	Orange-crowned warbler	<i>Vermivora celata</i>
	Nashville warbler	<i>Vermivora ruficapilla ridgwayi</i>
	Virginia warbler	<i>Vermivora virginiae</i>
	Lucy warbler	<i>Vermivora luciae</i>
	Yellow warbler	<i>Dendroica petechia morcomi</i>
	Audubon warbler	<i>Dendroica auduboni memorabilis</i>
	Black-throated gray warbler	<i>Dendroica migrescens</i>
	Townsend warbler	<i>Dendroica townsendi</i>
	Hermit warbler	<i>Dendroica occidentalis</i>
	Grace warbler	<i>Dendroica graciae graciae</i>
	Northern water thrush	<i>Seiurus noveboracensis notabilis</i>
	MacGillivray warbler	<i>Oporornis tolmiei</i>
	Yellowthroat	<i>Geothlypis trichas occidentalis</i>
	Yellow-breasted chat	<i>Icteria virens auricollis</i>
	Wilson warbler	<i>Wilsonia pusilla pileolata</i>
PLOCEIDAE - Weaver finches		
	House sparrow	<i>Passer domesticus domesticus</i>
ICTERIDAE - Meadowlarks, blackbirds, and orioles		
	Bobolink	<i>Dolichonyx oryzivorus</i>
	Western meadowlark	<i>Sturnella neglecta</i>
	Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>
	Redwinged blackbird	<i>Agelaius phoeniceus fortis</i>
	Scott oriole	<i>Icterus parisorum</i>
	Bullock's oriole	<i>Icterus bullockii bullockii</i>
	Brewer blackbird	<i>Euphagus cyanocephalus</i>
	Brown-headed cowbird	<i>Molothrus ater artemisiae</i>
	Brown-headed cowbird	<i>Molothrus ater obscurus</i>
THRAUPIDAE - Tanagers		
	Western tanager	<i>Piranga ludoviciana</i>
FRINGILLIDAE - Grosbeaks, finches, sparrows, and buntings		
	Black-headed grosbeak	<i>Pheucticus melanocephalus melanocephalus</i>
	Blue grosbeak	<i>Guiraca caerulea interfusa</i>
	Lazuli bunting	<i>Passerina amoena</i>
	Evening grosbeak	<i>Hesperiphona vespertina brooksi</i>

## Appendix B

51

Cassin finch	<i>Carpodacus cassinii</i>
House finch	<i>Carpodacus mexicanus frontalis</i>
Pine siskin	<i>Spinus pinus pinus</i>
American goldfinch	<i>Spinus tristis pallidus</i>
Lesser goldfinch	<i>Spinus psaltria hesperophilus</i>
Red crossbill	<i>Loxia curvirostra</i>
Green-tailed towhee	<i>Chlorura chlorura</i>
Rufous-sided towhee	<i>Pipilo erythrophthalmus montanus</i>
Savannah sparrow	<i>Passerculus sandwichensis nevadensis</i>
Vesper sparrow	<i>Pooecetes gramineus confinis</i>
Lark sparrow	<i>Chondestes grammacus strigatus</i>
Black-throated sparrow	<i>Amphispiza bilineata deserticola</i>
Sage sparrow	<i>Amphispiza belli nevadensis</i>
Slate-colored junco	<i>Junco hyemalis hyemalis</i>
Oregon junco	<i>Junco oreganus</i>
Gray-headed junco	<i>Junco caniceps caniceps</i>
Tree sparrow	<i>Spizella arborea ochracea</i>
Chipping sparrow	<i>Spizella passerina arizonae</i>
Brewer sparrow	<i>Spizella breweri breweri</i>
Harris sparrow	<i>Zonotrichia querula</i>
White-crowned sparrow	<i>Zonotrichia leucophrys oriantha</i>
Fox sparrow	<i>Passerella iliaca</i>
Lincoln sparrow	<i>Melospiza lincolni</i>
Song sparrow	<i>Melospiza melodia montana</i>

<b>Mammals of Glen Canyon</b>		
<b>Mammalia (class) - Mammals</b>		
<b>Insectivora (order) - Insectivores</b>		
<b>SORICIDAE - Shrews</b>		
	Merriam shrew	<i>Sorex merriami leucogenys</i>
	Dusky shrew	<i>Sorex vagrans obscurus</i>
	Water shrew	<i>Sorex palustris navigator</i>
	Dwarf shrew	<i>Sorex nanus</i>
	Cinereous shrew	<i>Sorex cinereus cinereus</i>
<b>Chiroptera (order) - Bats</b>		
<b>VESPERTILIONIDAE - Vespertilionid bats</b>		
	Big myotis	<i>Myotis lucifugus carissima</i>
	Yuma myotis	<i>Myotis yumanensis yumanensis</i>
	Long-eared myotis	<i>Myotis evotis evotis</i>
	Hairy-winged myotis	<i>Myotis volans interior</i>
	California myotis	<i>Myotis californicus stephensi</i>
	Small-footed myotis	<i>Myotis subulatus subulatus</i>
	Small-footed myotis	<i>Myotis subulatus melanorhinus</i>
	Silvery-haired bat	<i>Lasionycteris noctivagans</i>
	Western pipistrelle	<i>Pipistrellus hesperus hesperus</i>
	Big brown bat	<i>Eptesicus fuscus pallidus</i>
	Hoary bat	<i>Lasiurus cinereus cinereus</i>
	Long-eared bat	<i>Corynorhinus rafinesquii pallescens</i>
	Pallid bat	<i>Antrozous pallidus pallidus</i>
<b>MOLLOSSIDAE - Molossid bats</b>		
	Mexican free-tailed bat	<i>Tadarida braziliensis mexicana</i>
<b>Lagomorpha (order) - Hares, rabbits, and pikas</b>		
<b>OCHOTONIDAE - Pikas</b>		
	Pika	<i>Ochotona princeps utahensis</i>
<b>LEPORIDAE - Hares and rabbits</b>		
	White-tailed jack rabbit	<i>Lepus townsendii townsendii</i>
	Snowshoe rabbit	<i>Lepus americanus bairdii</i>
	Black-tailed jack rabbit	<i>Lepus californicus deserticola</i>

	Black-tailed jack rabbit	<i>Lepus californicus texianus</i>
	Nuttall cottontail	<i>Sylvilagus nuttallii grangeri</i>
	Nuttall cottontail	<i>Sylvilagus nuttallii pinetis</i>
	Audubon cottontail	<i>Sylvilagus audubonii warreni</i>
<b>Rodentia (order) - Rodents</b>		
<b>SCIURIDAE - Squirrels</b>		
	Abert squirrel	<i>Sciurus aberti navajo</i>
	Red squirrel	<i>Tamiasciurus hudsonicus fremonti</i>
	Yellow-bellied marmot	<i>Marmota flaviventer engelhardti</i>
	Yellow-bellied marmot	<i>Marmota flaviventer luteola</i>
	Spotted ground squirrel	<i>Citellus spilosoma cryptospilotus</i>
	Rock squirrel	<i>Citellus variegatus utah</i>
	Rock squirrel	<i>Citellus variegatus grammurus</i>
	White-tailed antelope squirrel	<i>Citellus leucurus cinnamomeus</i>
	Antelope ground squirrel	<i>Citellus leucurus escalante</i>
	Antelope ground squirrel	<i>Citellus leucurus notom</i>
	Golden-mantled ground squirrel	<i>Citellus lateralis lateralis</i>
	Least chipmunk	<i>Eutamias minimus consobrinus</i>
	Say chipmunk	<i>Eutamias umbrinus adsitus</i>
	Say chipmunk	<i>Eutamias umbrinus sedulus</i>
	Say chipmunk	<i>Eutamias quadrivittatus hopiensis</i>
	Cliff chipmunk	<i>Eutamias dorsalis utahensis</i>
<b>GEOMYIDAE - Pocket gophers</b>		
	Northern pocket gopher	<i>Thomomys talpoides durranti</i>
	Northern pocket gopher	<i>Thomomys talpoides levis</i>
	Botta pocket gopher	<i>Thomomys bottae osgoodi</i>
	Botta pocket gopher	<i>Thomomys bottae aureus</i>
	Botta pocket gopher	<i>Thomomys bottae absonus</i>
	Botta pocket gopher	<i>Thomomys bottae alexandrae</i>
	Botta pocket gopher	<i>Thomomys bottae powelli</i>
<b>HETEROMYIDAE - Pocket mice, kangaroo mice, and kangaroo rats</b>		
	Baird pocket mouse	<i>Perognathus flavus hopiensis</i>
	Apache pocket mouse	<i>Perognathus apache caryi</i>
	Apache pocket mouse	<i>Perognathus apache apache</i>
	Little pocket mouse	<i>Perognathus longimembris arizonensis</i>

## Appendix C

54

	Little pocket mouse	<i>Perognathus longimembris arcus</i>
	Intermediate pocket mouse	<i>Perognathus intermedius crinitus</i>
	Pocket mouse	<i>Perognathus parvus trumbullensis</i>
	Pocket mouse	<i>Perognathus parvus bullatus</i>
	Long-tailed pocket mouse	<i>Perognathus formosus formosus</i>
	Long-tailed pocket mouse	<i>Perognathus formosus domisaxensis</i>
	Ord kangaroo rat	<i>Dipodomys ordii sanrafaeli</i>
	Ord kangaroo rat	<i>Dipodomys ordii fremonti</i>
	Ord kangaroo rat	<i>Dipodomys ordii cupidineus</i>
	Ord kangaroo rat	<i>Dipodomys ordii longipes</i>
	Ord kangaroo rat	<i>Dipodomys ordii nexilis</i>
CASTORIDAE - Beavers		
	Beaver	<i>Castor canadensis repentinus</i>
CRICETIDAE - Native rats and mice		
	Western harvest mouse	<i>Reithrodontomys megalotis megalotis</i>
	Western harvest mouse	<i>Reithrodontomys megalotis aztecus</i>
	Canyon mouse	<i>Peromyscus crinitus auripectus</i>
	Canyon mouse	<i>Peromyscus crinitus doutti</i>
	Canyon mouse	<i>Peromyscus crinitus stephensi</i>
	Deer mouse	<i>Peromyscus maniculatus sonoriensis</i>
	Deer mouse	<i>Peromyscus maniculatus rufinus</i>
	Brush mouse	<i>Peromyscus boylii utahensis</i>
	Brush mouse	<i>Peromyscus boylii rowleyi</i>
	Pinon mouse	<i>Peromyscus truei truei</i>
	Rock mouse	<i>Peromyscus nasutus nasutus</i>
	Northern grasshopper mouse	<i>Onychomys leucogaster melanophrys</i>
	Northern grasshopper mouse	<i>Onychomys leucogaster pallescens</i>
	White-throated wood rat	<i>Neotoma albigula laplataensis</i>
	Mexican wood rat	<i>Neotoma mexicana inopinata</i>
	Desert wood rat	<i>Neotoma lepida sanrafaeli</i>
	Desert wood rat	<i>Neotoma lepida monstrabilis</i>
	Stephens wood rat	<i>Neotoma stephensi relictia</i>
	Bushy-tailed wood rat	<i>Neotoma cinerea acraia</i>
	Bushy-tailed wood rat	<i>Neotoma cinerea arizonae</i>
	Muskrat	<i>Ondatra zibethicus osoyoosensis</i>
	Heather vole	<i>Phenacomys intermedius intermedius</i>

	Montane meadow mouse	<i>Microtus montanus amosus</i>
	Long-tailed meadow mouse	<i>Microtus longicaudus alticola</i>
	Long-tailed meadow mouse	<i>Microtus longicaudus mordax</i>
	Mexican vole	<i>Microtus mexicanus navaho</i>
<b>ZAPODIDAE - Jumping mice and allies</b>		
	Big jumping mouse	<i>Zapus princeps utahensis</i>
<b>ERETHIZONTIDAE - American porcupines</b>		
	Porcupine	<i>Erethizon dorsatum epixanthum</i>
	Porcupine	<i>Erethizon dorsatus couesi</i>
<b>Carnivora (order) - Carnivores</b>		
<b>CANIDAE - Foxes, coyotes, and wolves</b>		
	Wolf	<i>Canis lupus youngi</i>
	Coyote	<i>Canis latrans lestes</i>
	Coyote	<i>Canis latrans mearnsi</i>
	Red fox	<i>Vulpes fulva macroura</i>
	Gray fox	<i>Urocyon cinereoargenteus scottii</i>
<b>URSIDAE - Bears</b>		
	Black bear	<i>Ursus americanus cinnamomum</i>
	Black bear	<i>Ursus americanus amblyceps</i>
<b>PROCYONIDAE - Racoons and allies</b>		
	Ring-tailed cat	<i>Bassariscus astutus nevadensis</i>
	Ring-tailed cat	<i>Bassariscus astutus arizonensis</i>
	Raccoon	<i>Procyon lotor pallidus</i>
<b>MUSTELIDAE - Weasels and allies</b>		
	Ermine	<i>Mustela erminea muricus</i>
	Long-tailed weasel	<i>Mustela frenata nevadensis</i>
	Badger	<i>Mustela taxus taxus</i>
	Badger	<i>Taxidea taxus berlandieri</i>
	Striped skunk	<i>Mephitis mephitis major</i>
	Striped skunk	<i>Mephitis mephitis estor</i>
	Spotted skunk	<i>Spilogale gracilis saxitilis</i>
	Spotted skunk	<i>Spilogale gracilis gracilis</i>
	River otter	<i>Lutra cadadensis nexa</i>
	River otter	<i>Lutra cadadensis sonora</i>
<b>FELIDAE - Cats</b>		

## Appendix C

	Bobcat	<i>Lynx rufus baileyi</i>
	Mountain lion	<i>Felis concolor kaibabensis</i>
<b>Artiodactyla (order) - Ungulates</b>		
<b>CERVIDAE - Deer and allies</b>		
	Mule deer	<i>Odocoileus hemionus hemionus</i>
<b>ANTILOCAPRIDAE - Prong-horned antelope</b>		
	Prong-horned antelope	<i>Antilocapra americana americana</i>
	Wapiti (elk)	<i>Cervus canadensis nelsoni</i>
<b>BOVIDAE - Cattle, sheep, goats, and allies</b>		
	Bison	<i>Bison bison bison</i>
	Mountain sheep	<i>Ovis canadensis canadensis</i>



Fish of Glen Canyon		
<b>Pisces, Osteichthyes (class) - True fishes</b>		
SALMONIDAE - Salmon and trout		
	Colorado River cutthroat	<i>Salmo clarki pleuriticus</i>
	Coast rainbow	<i>Salmo gairderi irideus</i>
COREGONIDAE - Whitefishes		
	Mountain whitefish	<i>Coregonus williamsoni</i>
CATOSTOMIDAE - Suckers		
	Flannelmouth sucker	<i>Catostomus latipinnis</i>
	Northern blue-head mountain sucker	<i>Pantosteus delphinus delphinus</i>
	Humpback sucker	<i>Xyrauchen texanus</i>
CYPRINIDAE - Carp, dace and minnows		
	Utah chub	<i>Gilia atraria</i>
	Bonytail	<i>Gila robusta elegans</i>
	Roundtail chub	<i>Gilia robusta robusta</i>
	Carp	<i>Cyprinus carpio</i>
	Colorado squawfish	<i>Ptycholcheilus lucius</i>
	Fathead minnow	<i>Pimephales promelas</i>
	Upper Colorado dace	<i>Rhinichthys osculus yarrowi</i>
	Woundfin	<i>Plagopterus argentissimus</i>
ICTALURIDAE, AMEIURIDAE - North American catfishes		
	Channel catfish	<i>Ictalurus punctatus</i>
	Black bullhead catfish	<i>Ictalurus melas melas</i>
CYPRINODONTIDAE - Killifishes		
	Southwest plains killifish	<i>Fundulus zebrinus</i>
COTTIDAE - Sculpins		
	Colorado mottled sculpin	<i>Cottus bairdi punctulatus</i>
POECILIIDAE - Mosquito fishes		
	Westerb gambusia	<i>Gambusia affinis affinis</i>
CENTRARCHIDAE - Sunfishes		
	Largemouth bass	<i>Micropterus salmoides salmoides</i>
	Green sunfish	<i>Lepomis cyanellus</i>
	Bluegill	<i>Lepomis macrochirus macrochirus</i>
PERCIDAE - Perches		
	Yellow perch	<i>Perca flavescens</i>

## Appendix E

<b>Reptiles of Glen Canyon</b>		
<b>Reptilia (class) - Reptiles</b>		
<b>Synaptosauria (subclass) - Lizards and snakes</b>		
<b>Sauria (order) - Lizards</b>		
<b>IGUANIDAE - Iguanid lizards</b>		
	Western collared lizard	<i>Crotaphytus collaris baileyi</i>
	Long-nosed leopard lizard	<i>Crotaphytus wislizeni wislizeni</i>
	Western chuckwalla	<i>Sauromalus obesus obesus</i>
	Speckled earless lizard	<i>Holbrookia maculata approximans</i>
	Desert spiny lizard	<i>Sceloporus magister magister</i>
	Northern plateau lizard	<i>Sceloporus undulatus elongatus</i>
	Great basin sagebrush lizard	<i>Sceloporus graciosus graciosus</i>
	Northern side-blotched lizard	<i>Uta stansburiana stansburiana</i>
	Northern cliff lizard	<i>Uta ornata wrighti</i>
	Mountain horned lizard	<i>Phrynosoma douglassi hernandesi</i>
	Desert horned lizard	<i>Phrynosoma platyrhinos calidiarum</i>
<b>TEIDAE - Whiptail lizards</b>		
	Northern whiptail	<i>Cnemidophorus tigris septentrionalis</i>
	Plateau whiptail	<i>Cnemidophorus sacki innotatus</i>
<b>XANTUSIDAE - Night lizards</b>		
	Utah night lizard	<i>Xantusia vigilis utahensis</i>
<b>Serpentes (order) - Snakes</b>		
<b>COLUBRIDAE - Colubrid snakes</b>		
	Western black-necked garter snake	<i>Thamnophis cyrtopsis cyrtopsis</i>
	Wandering garter snake	<i>Thamnophis elegans vagrans</i>
	Desert striped whipsnake	<i>Masticophis taeniatus taeniatus</i>
	Mohave patch-nosed snake	<i>Salvadora hexalepis mojavensis</i>
	Great Basin gopher snake	<i>Pituophis catenifer deserticola</i>
	California king snake (banded phase)	<i>Lampropeltis getulus californiae</i>
	Mesa Verde night snake	<i>Hypsiglena torquata loreala</i>
<b>CROTALIDAE - Rattlesnakes and allies</b>		
	Western rattlesnake	<i>Crotalus viridis</i>

Appendix E

<b>Anapsida (subclass) - Turtles</b>		
<b>Chelonia (order) - Turtles</b>		
<b>EMYDIDAE - Turtles</b>		
	Western painted turtle	<i>Chrysemys picta belli</i>


## Appendix F

60

<b>Amphibians of Glen Canyon</b>		
<b>Amphibia (class) - Amphibians</b>		
<b>Caudata (order) - Salamanders</b>		
<b>AMBYSTOMIDAE - Ambystomid salamanders</b>		
	Arizona tiger salamander	<i>Ambystoma tigrinum nebulosum</i>
	Utah tiger salamander	<i>Ambystoma tigrinum utahensis</i>
<b>Salientia (order) - Tailless amphibians</b>		
<b>PELOBATIDAE - Spadefoot toads</b>		
	Hammond spadefoot	<i>Scaphiopus hammondi hammondi</i> <i>Scaphiopus hammondi intermontanus</i>
<b>BUFONIDAE - Common toads</b>		
	Red-spotted toad, desert toad	<i>Bufo punctatus</i>
	Woodhouse toad	<i>Bufo woodhousei woodhousei</i>
<b>HYLIDAE - Tree frogs and allies</b>		
	Canyon treefrog	<i>Hyla arenicolor</i>
<b>RANIDAE - Common frogs</b>		
	Western leopard frog	<i>Rana pipiens brachycephala</i>

Invertebrates of Glen Canyon			
	Common name	Scientific name	Parasite host
<b>ENDOPARASITES</b>			
<b>Platyhelminthes (phylum) - Flatworms</b>			
<b>Cestoidea (class) - Tapeworms</b>			
DAVAINEIDAE		<i>Raillietina</i> sp.	Cottontail rabbits ✓
<b>Aschelminthes (phylum) - Roundworms and allies</b>			
<b>Nematoda (class) - Roundworms</b>			
OXYURIDAE		<i>Dentostomella</i> sp.	Say chipmunk
		<i>Dermatoxys velligera</i>	Cottontail rabbit
		<i>Heteroxynema cucullatum</i>	Say chipmunk
			<i>Eutamias quadrivittatus</i>
		<i>Syphacia eutamii</i>	Say chipmunk
		<i>Syphacia peromysci</i>	<i>Peromyscus crinitus</i>
			<i>Peromyscus maniculatus</i> ✓
		<i>Syphacia</i> sp.	<i>Spermophilus variegatus</i>
Family not specified			
		<i>Aspiculuris</i> sp.	<i>Peromyscus crinitus</i>
			<i>Peromyscus maniculatus</i>
	Blood worms	<i>Strongyle</i> sp.	<i>Peromyscus truei</i>
<b>MOLLUSKS</b>			
<b>Mollusca (phylum) - Mollusks</b>			
<b>Pelecypoda (class) - Bivalves</b>			
<b>SPHAERIIDAE - Seed shells</b>			
	Fragile seed-shell	<i>Psidium abditum</i>	
	Variable seed-shell	<i>Psidium variabile</i>	
<b>Gastropoda (class) - Snails</b>			
<b>HELICIDAE - Helix snails</b>			
	Variable land snail	<i>Oreohelix strigosa depressa</i>	
	Many-whorled land snail	<i>Microphysula ingersolli</i>	
	White midget	<i>Vallonia albula</i>	

## Appendix G

62

	The midget	<i>Vallonia cyclophorella</i>	
	Gracefully-ribbed midget	<i>Vallonia gracilicosta</i>	
	Smooth midget	<i>Vallonia pulchella</i>	
PUPILLIDAE - Columnar snails			
	Columnar snail	<i>Pupilla syngenes</i>	
	Plain margined snail	<i>Pupoides marginatus</i>	
	Colorado columnar snail	<i>Vertigo coloradensis</i>	
ACHATINIDAE - Fusiform snails			
	Fusiform snail	<i>Cochlicopa lubrica</i>	
ZONITIDAE - Leaf snails and allies			
	Conical leaf snail	<i>Euconulus fulvus alaskensis</i>	
	Alaskan glassy snail	<i>Vitrina alaskana</i>	
	Indented leaf snail	<i>Vitrea indentata</i>	
	Tree snail	<i>Zonitoides arboreus</i>	
LIMACIDAE - Slugs			
	European slug	<i>Agriolimax agrestis</i>	
	Native slug	<i>Agriolimax campestris</i>	
ENDODONTIDAE			
	Cronkhite snail	<i>Gonyodiscus cronkhitei</i>	
		<i>Helicodiscus eigenmanni</i>	
SUCCINEIDAE - Swamp snails			
	Variable swamp snail	<i>Succinea avara</i>	
	Twisted snail	<i>Succinea grosvenori</i>	
	Hawkins swamp snail	<i>Succinea hawkinsi</i>	
LYMNAEIDAE - Pond snails			
		<i>Fossaria modicella modicella</i>	
		<i>Fossaria modicella rustica</i>	
	Deep-sutured pond snail	<i>Fossaria obrussa</i>	
		<i>Fossaria parva</i>	
	Microscopically-lined pond snail	<i>Stagnicola caperata</i>	
	Heavy spired pond snail	<i>Stagnicola palustris nuttalliana</i>	
PLANORBIDAE			
	Worm-like flat snail	<i>Gyraulus vermicularis</i>	
	Distorted flat snail	<i>Helisoma trivolvis trivolvis</i>	
PHYSIDAE			
	Zion rock snail	<i>Petrophysa zionis</i>	

	Large physella	<i>Physella ampullacea</i>	
	Striped physella	<i>Physella virgata</i>	
<b>ARTHROPODS</b>			
<b>Crustacea (class) - Crustaceans</b>			
<b>Malacostraca (subclass)</b>			
<b>Isopoda (order) - Isopods</b>			
<b>ARMADILLIDIIDAE</b>			
		<i>Armadillidium vulgare</i>	
<b>PORCELLIONIDAE</b>			
		<i>Cylisticus convexus</i>	
		<i>Metaponorthus pruinosis</i>	
		<i>Porcellio laevis</i>	
		<i>Porcellio scaber</i>	
<b>Notostraca (order)</b>			
<b>APODIDAE</b>			
	Tadpole shrimp	<i>Apus longicaudatus</i>	
<b>Amphipoda (order) - Scuds, sideswimmers</b>			
<b>TALITRIDAE</b>			
		<i>Hyalolella knickerbockeri</i>	
<b>GAMMARIDAE</b>			
		<i>Gammarus fasciatus</i>	
<b>Diplopoda (class) - Millipeds</b>			
<b>Spirobolida (order)</b>			
		<i>Californibolus utahensis</i>	
<b>ATOPETHOLIDAE</b>			
		<i>Arinolus sp.</i>	
		<i>Piedolus utus</i>	
<b>Julida (order)</b>			
<b>PARAIULIDAE</b>			
		<i>Aniulus venustus</i>	
		<i>Taiulus tiganus</i>	

<b>Lysiopetalida (order)</b>		
LYSIOPETALIDAE		
		<i>Colactis utorum</i>
<b>Chordeumida (order)</b>		
RHISCOSOMIDIDAE		
		<i>Tingupa utahensis australis</i>
<b>Chilopoda (class) - Centipeds</b>		
<b>Scolopendrida (order)</b>		
SCOLOPENDRIDAE		
	The centiped	<i>Scolopendra polymorpha</i>
<b>Geophilida (order)</b>		
GEOPHILIDAE		
		<i>Geophilus rubens</i>
		<i>Watophilus utus</i>
CHILENOPHILIDAE		
		<i>Arctogeophilus xenoporus</i>
HIMANTARIIDAE		
		<i>Gosiphilus hesperus</i>
		<i>Gosiphilus minor arizonicus</i>
<b>Lithobiida (order)</b>		
HENICOPIDAE		
		<i>Lamyctes pinampus</i>
GOSIBIIDAE		
		<i>Gosibius arizonicus</i>
LITHOBIIDAE		
		<i>Juanobius eremus</i>
		<i>Lophobius arizonae</i>
		<i>Lophobius collium</i>
		<i>Lophobius socius</i>
		<i>Lophobius utahensis</i>
		<i>Oabius sanjuanus</i>



		<i>Tidabius tivius</i>	
ETHOPODIDAE			
		<i>Archeopolys gosobius</i>	
<b>INSECTS</b>			
<b>Ephemeroptera (order) - Mayflies</b>			
SIPHONURIDAE			
		<i>Isonychia campestris</i>	
		<i>Siphonurus occidentalis</i>	
OLIGONEURIIDAE			
		<i>Homoeoneuria</i> sp.	
		<i>Lachlania powelli</i>	
HEPTAGENIIDAE			
		<i>Anepeorus rusticus</i>	
		<i>Cinygmula mimus</i>	
		<i>Heptagenia elegantula</i>	
		<i>Pseudiron</i> sp.	
		<i>Rhithrogena undulata</i>	
AMETROPODIDAE			
		<i>Ametropus albrighti</i>	
BAETIDAE			
		<i>Baetis insignificans</i>	
		<i>Baetis</i> sp.	
		<i>Callibaetis</i> sp.	
LEPTOPHLEBIIDAE			
		<i>Choroerpes albiannulata</i>	
		<i>Leptophlebia gravastellus</i>	
		<i>Traverella albertana</i>	
EPHEMERELLIDAE			
		<i>Ephemerella inermis</i>	
TRICORYTHIDAE			
		<i>Tricorythodes</i> sp.	
CAENIDAE			
		<i>Brachycercus</i> sp.	
EPHEMERIDAE			
		<i>Ephemera simulans</i>	

## Appendix G

Odonata (order) - Dragonflies and damselflies		
AESCHNIDAE - Dragonflies		
		<i>Aeshna multicolor</i>
		<i>Aeshna palmata</i>
		<i>Aeshna umbrosa</i>
		<i>Anax junius</i>
		<i>Anax walsinghami</i>
LIBELLULIDAE		
		<i>Pantala flavescens</i>
		<i>Pantala hymenaea</i>
		<i>Palltothemis lineastipes</i>
		<i>Leucorrhinia hudsonica</i>
		<i>Leucorrhinia intacta</i>
		<i>Libellula comanche</i>
		<i>Libellula forensis</i>
		<i>Libellula pulchella</i>
		<i>Libellula quadrimaculata</i>
		<i>Libellula (Belonia) saturata</i>
		<i>Pachydiplax longipennis</i>
		<i>Sympetrum corruptum</i>
		<i>Sympetrum danae</i>
		<i>Sympetrum semicinctorum</i>
		<i>Tarnetrum corruptum</i>
		<i>Tamea lacerata</i>
		<i>Tamea onusta</i>
GOMPHIDAE		
		<i>Gomphus (Stylurus) intricatus</i>
		<i>Ophiogomphus occidentalis</i>
LESTIDAE - Damselflies		
		<i>Lestes uncatus</i>
		<i>Argia emma</i> or <i>Hyponeura lugens</i>
		<i>Argia vivida</i>
		<i>Argia sedula</i>
		<i>Enallagma</i> spp.
COENAGRIONIDAE - Damselflies		
		<i>Argia vivida</i>

## Appendix G

		<i>Amphiagrion abbreviatum</i>	
		<i>Enallagma cyathigerum</i>	
<b>Orthoptera (order) - Grasshoppers, crickets, and allies</b>			
LOCUSTIDAE - Locusts			
		<i>Heliastus aridus</i>	
		<i>Hesperotettix viridis</i>	
		<i>Hesperotettix curtipennis</i>	
		<i>Melanoplus bivittatus</i>	
		<i>Melanoplus femur-rubrum</i>	
		<i>Melanoplus mexicanus mexicanus</i>	
		<i>Melanoplus packardi</i>	
		<i>Trimerotropis vinculata</i>	
MANTIDAE - Praying mantids			
		<i>Stagmomantis californica</i>	
ACRIDIDAE - Short-horned grasshoppers			
		<i>Cyrtacanthacridinae</i> sp.	
TETTIGONIIDAE - Long-horned grasshoppers			
		unknown	
<b>Isoptera (order) - Termites</b>			
TERMITIDAE - Termites			
		<i>Reticulitermes hesperus</i>	
		<i>Pteronarcella badia</i>	
<b>Hemiptera (order) - Bugs</b>			
PENTATOMIDAE - Stink bugs			
		<i>Brochymena 4-pustulata</i>	
		<i>Chlorochroa</i> sp.	
COREIDAE - Squash bugs			
	Squash bug	<i>Anasa tristis</i>	
NEIDIDAE - Stilt bugs			
		<i>Jalysus wickhami</i>	
LYGAEIDAE - Chinch bugs			
		<i>Geocoris pallens</i>	
TINGIDAE - Lace bugs			

## Appendix G

		<i>Corythucha morrilli</i>	
PHYMATIDAE - Ambush bugs			
		<i>Phymata borica</i>	
		<i>Phymata pennsylvanica coloradensis</i>	
REDUVIIDAE - Assassin bugs, kissing bugs, etc.			
		<i>Apiomerus crassipes</i>	
		<i>Sinea complexa</i>	
		<i>Zelus renardi</i>	
		<i>Zelus socius</i>	
NABIDAE - Damsel bugs			
		<i>Nabis alternata</i>	
ANTHOCORIDAE - Minute pirate bugs			
		<i>Orius tristicolor</i>	
MIRIDAE			
		<i>Campylomma verbasci</i>	
	Say stink bug	<i>Chlorochroa sayi</i>	
		<i>Deraeocoris bakeri</i>	
		<i>Deraeocoris brevis</i>	
		<i>Lobopidea simplex</i>	
		<i>Lygus elisus</i>	
		<i>Lygus pratensis oblineatus</i>	
		<i>Stenodema trispinosum</i>	
GERRIDAE - Water striders			
		<i>Gerris gillettei</i>	
		<i>Gerris notabilis</i>	
		<i>Gerris orba</i>	
		<i>Gerris remigis</i>	
		<i>Metrobates trux</i>	
VELIIDAE - Veliids			
		<i>Microvelia americana</i>	
		<i>Rhagovelia distincta</i>	
		<i>Rhagovelia exellentis</i>	
		<i>Rhagovelia obesa</i>	
NOTONECTIDAE - Back swimmers			
		<i>Notonecta insulata</i>	
		<i>Notonecta kirbyi</i>	

		<i>Notonecta lobata</i>	
		<i>Notonecta spinosa</i>	
		<i>Notonecta undulata</i>	
		<i>Notonecta unifasciata</i>	
<b>NAUCORIDAE - Water creepers</b>			
		<i>Ambrysus mormon</i>	
		<i>Ambrysus woodburyi</i>	
<b>BELOSTOMATIDAE - Giant water bugs</b>			
		<i>Lethocerus americanus</i>	
<b>GELASTOCORIDAE</b>			
		<i>Gelastocoris oculatus</i>	
<b>CORIXIDAE - Water boatmen</b>			
		<i>Arctocorixa abdominalis</i>	
		<i>Callicorixa audeni</i>	
		<i>Cenocorixa utahensis</i>	
		<i>Cenocorixa wileyae</i>	
		<i>Corisella decolor</i>	
		<i>Corisella inscripta</i>	
		<i>Corisella tarsalis</i>	
		<i>Graptocorixa abdominalis</i>	
<b>Megaloptera (order) - Alderflies, dobsonflies, fishflies</b>			
<b>CORYDALIDAE - Dobsonflies</b>			
		<i>Corydalus sp.</i>	
<b>Homoptera (order) - Cicadas, aphids, and allies</b>			
<b>CICADIDAE - Cicadas</b>			
		<i>Cacama valvata</i>	
		<i>Diceroprocta apache</i>	
		<i>Okanagana fratercula</i>	
		<i>Okanagana schaefferi</i>	
		<i>Okanagana synodica</i>	
		<i>Platypedia mohavensis</i>	
<b>MEMBRACIDAE - Treehoppers</b>			
		<i>Pubilia modesta</i>	
<b>CICADELLIDAE - Leafhoppers</b>			

Appendix G

	<i>Aceratagallia aridae</i>	
	<i>Acinopterus viridis</i>	
	<i>Athysanella utahna</i>	
	<i>Circulifer tenella</i>	
	<i>Colanthanus acutus</i>	
	<i>Colladonus montanus</i>	
	<i>Colladonus flavocapitatus</i>	
	<i>Deltocephalus grex</i>	
	<i>Edwardsiana sp.</i>	
	<i>Empoasca cerca</i>	
	<i>Hebecaphalus signatifrons</i>	
	<i>Helochara communis</i>	
	<i>Idiocerus alternatus</i>	
	<i>Lonatura salsura</i>	
	<i>Neocoelidia lineata</i>	
	<i>Nesosteles neglecta</i>	
	<i>Norvellina scitua</i>	
	<i>Opsiurus stactagalus</i>	
	<i>Stragania grandis</i>	
CHERMIDAE - Jumping plant lice		
	<i>Aphalara artemisiae</i>	
	<i>Aphalara constricta</i>	
	<i>Arytaina chelifera</i>	
	<i>Arytaina pubescens</i>	
	<i>Arytaina snowi</i>	
	<i>Calophya aurea</i>	
	<i>Calophya dubia</i>	
	<i>Calophya triozmima</i>	
	<i>Euphalerus vermiculosus</i>	
	<i>Euphyllura arctostaphyli</i>	
	<i>Paratrioza cockerelli</i>	
	<i>Psyllia alba</i>	<i>Sarcobatus vermiculatus</i>
APHIDIDAE - Plant lice, aphids		
	<i>Acyrtosiphon pisum</i>	
	<i>Aphis varians</i>	<i>Chrysothamnus nauseosus</i>
	<i>Brachyungus bonnevillensis</i>	<i>Artemisia tridentata</i>

## Appendix G

71

	<i>Chromaphis juglandicola</i>	
	<i>Dactynotus escalantii</i>	
	<i>Epameibaphis atricornis</i>	
	<i>Flabellomicrosiphum tridentatae</i>	<i>Chrysothamnus nauseosus</i>
	<i>Hayhurstia atriplicis</i>	<i>Artemisia tridentata</i>
	<i>Lipaphis erysimi</i>	
	<i>Nectarosiphon persicae</i>	
	<i>Pleotrichophorus oestlundii</i>	<i>Rosa</i>
	<i>Pseudoepameibaphis tridentata</i>	
	<i>Schizaphid graminum</i>	
	<i>Therioaphis trifolii</i>	
	<i>Wahlgreniella nervata</i>	
<b>Neuroptera (order) - Lacewings and allies</b>		
<b>RAPHIDIIDAE - Snake-flies</b>		
	<i>Agulla bicolor</i>	
<b>MYRMELIONIDAE - Ant lions</b>		
	<i>Clathroneuria schwatzi</i>	
	<i>Hesperoleon sp. near ferox</i>	
	<i>Hesperoleon sp. near papago</i>	
	<i>Hesperoleon texanus</i>	
	<i>Paranthaclisis congener</i>	
<b>HEMEROBIIDAE - Brown lacewings</b>		
	<i>Hemerobius pacificus</i>	
	<i>Megalomus moestus</i>	
<b>CHRYSOPIDAE - Green lacewings, and aphid lions</b>		
	<i>Chrysopa coloradensis</i>	
	<i>Chrysopa harrisii</i>	
	<i>Chrysopa oculata</i>	
	<i>Chrysopa plorabunda</i>	
	<i>Chrysopiella sp.</i>	
	<i>Eremochrysa sp.</i>	
<b>Coleoptera (order) - Beetles</b>		
<b>OMOPHROMIDAE - Wet sand beetles</b>		
	<i>Omophron americanum</i>	

		<i>Omophron gilae</i>	
		<i>Omophron gilae</i>	
		<i>Omophron obliteratus utense</i>	
		<i>Omophron robustus</i>	
<b>HALIPLIDAE - Crawling water beetles</b>			
		<i>Peltodytes callossus</i>	
		<i>Peltodytes simplex</i>	
<b>DYSTICIDAE - Predaceous water beetles</b>			
		<i>Agabus cordatus</i>	
		<i>Agabus lugens</i>	
		<i>Agabus perplexus</i>	
		<i>Agabus seriatus</i>	
		<i>Bidessus</i> sp.	
		<i>Deronectes</i> sp.	
		<i>Dystiscus dauricus</i>	
		<i>Hydroporus planiusculus</i>	
		<i>Hydroporus striatellus</i>	
		<i>Hygrotus</i> sp.	
		<i>Laccophilus decipiens</i>	
		<i>Oreodytes</i> sp.	
		<i>Rhantus anisonychus</i>	
		<i>Rhantus binotatus</i>	
		<i>Thermonectes marmoratus</i>	
<b>GYRINIDAE - Whirligig beetles</b>			
		<i>Gyrinus picipes</i>	
		<i>Gyrinus plicifer</i>	
<b>HYDROPHYLIDAE - Water scavenger beetles</b>			
		<i>Berosus punctatissimus</i>	
		<i>Berosus maculosus</i>	
		<i>Berosus styliferus</i>	
		<i>Enocharus obtusiusculus</i>	
		<i>Hydrochara lineata</i>	
		<i>Hydrophilus triangularis</i>	
		<i>Hydrous lineatus</i>	
		<i>Laccobius ellipticus</i>	
		<i>Tropisternus ellipticus</i>	



DRYOPIDAE - Long-toed crawling water beetles		
		<i>Helichus suturalis</i>
SILPHIDAE - Carrion beetles		
		<i>Silpha bituberosa</i>
		<i>Silpha ramosa</i>
CLERIDAE - Checkered beetles		
		<i>Cymatodera fuschi</i>
		<i>Cymatodera laetus abruptus</i>
		<i>Cymatodera latefascia</i>
		<i>Cymatodera ovipennis</i>
		<i>Thanasimus undulatus nubilus</i>
		<i>Trichodes apivorus</i>
MELOIDAE - Blister beetles		
		<i>Calospasta edmundsi</i>
		<i>Epicauta normalis</i>
		<i>Gnathium nitidum</i>
		<i>Linsleya sphaericollis</i>
		<i>Lytta cooperi</i>
		<i>Lytta raticulata</i>
		<i>Nemognatha scutellaris</i>
		<i>Pyrota engelmanni</i>
		<i>Zonitis flavida</i>
		<i>Zonitis vermiculata</i>
ELASTERIDAE - Click beetles		
		<i>Hemicrepidus carbonatus</i>
		<i>Limenius canus</i>
		<i>Ludius nebraskensis</i>
		<i>Melanotus exuberans</i>
NITIDULIDAE - Sap-feeders		
		<i>Carpophilis humeralis</i>
		<i>Carpophilis lugubris</i>
		<i>Urophorus humeralis</i>
COCCINELLIDAE - Ladybird beetles		
		<i>Ceratomegilla vittigera</i>
		<i>Coccinella transversoguttata</i>
		<i>Epilachna corrupta</i>

	<i>Exochomus septentrionis</i>	
	<i>Hippodamia apicalis</i>	
	<i>Hippodamia convergens</i>	
	<i>Hippodamia parenthesis</i>	
	<i>Hippodamia 5-stignata</i>	
	<i>Hippodamia sinuata disjuncta</i>	
	<i>Hyperaspis inflexa</i>	
	<i>Olla abdominalis</i>	
	<i>Psyllobora separata</i>	
	<i>Scymnus uteanus</i>	
MORDELLIDAE - Tumbling flower beetles		
	<i>Mordella</i> sp.	
TENEBRIONIDAE - Darkling ground beetles		
	<i>Eloedes caudifera</i>	
	<i>Eloedes extricata</i>	
	<i>Eloedes hispilabrus</i>	
	<i>Eloedes nigrina</i>	
	<i>Eloedes obsoleta</i>	
	<i>Eloedes primelioides patrualis</i>	
	<i>Hylacrinus delicatulus</i>	
	<i>Triorophus laevis</i>	
BOSTRICHIDAE - Twig borers		
	<i>Stephanopachys substriatus</i>	
SCARABAEIDAE - June beetles		
	<i>Canthon simplex</i>	
	<i>Ctenicera nebraskensis</i>	
	<i>Cyclocephala reflexa</i>	
	<i>Dichelonyx sulcata</i>	
	<i>Dichelonyx truncata</i>	
	<i>Diplotaxis brevicollis</i>	
	<i>Diplotaxis conformis</i>	
	<i>Dipilotaxis levocora</i>	
	<i>Ligyris gibbosus</i>	
	<i>Limonius canus</i>	
	<i>Onthophagus californicus</i>	
	<i>Paracotalpa granicollis</i>	

		<i>Phylophaga anxia</i>	
		<i>Polyphylla crinata</i>	
		<i>Polyphylla decemlineata</i>	
		<i>Polyphylla fuscula</i>	
		<i>Trichiotinus assimilis</i>	
		<i>Trox atrox</i>	
CARABIDAE - Ground beetles			
		unknown	
PSELAPHIDAE - Ant-loving beetles			
		unknown	
CERAMBYCIDAE - Longhorn beetles			
		<i>Crossidiusater pulchellus</i>	
		<i>Dicerca horni</i>	
		<i>Oxoplus corallinus</i>	
		<i>Oxoplus joeosus</i>	
		<i>Prionus californicus</i>	
CHRYSOMELIDAE - Leaf beetles			
		<i>Donacia hirticollis</i>	
		<i>Monoxia sp. near consputa</i>	
		<i>Nodonata puncticollis</i>	
ANTHRIBIDAE - Fungus weevils			
		<i>Desmoris constricta</i>	
CURCULIONIDAE - Weevils, snout beetles, etc.			
		<i>Anthonomus squamosus</i>	
		<i>Cleonus modestus</i>	
		<i>Endalus limatulus</i>	
		<i>Eupagoderes sordidus</i>	
SCOLYTIDAE - Bark beetles			
		<i>Scolytus rugulosus</i>	
Trichoptera (order) - Caddisflies			
PHILOPOTAMIDAE			
		<i>Chimarra sp.</i>	
PSYCHOMYIIDAE			
		<i>Polycentropus sp.</i>	
HYDROPSYCHIDAE			

		<i>Hydropsyche</i> sp.	
		<i>Potamyia</i> sp.	
HYDROPTILIDAE			
		<i>Neotrichia</i> sp.	
LIMNEPHILIDAE			
		<i>Hesperophylax magnus</i>	
BRACHYCENTRIDAE			
		<i>Brachycentrus</i> sp.	
HELICOPSYCHIDAE			
		<i>Helicopsyche</i> sp.	
<b>Lepidoptera (order) - Butterflies and moths</b>			
PAPILIONIDAE - Swallow-tail butterflies			
		<i>Parnassius smintheus</i>	
PTERIDAE - Sulfur and white butterflies			
		<i>Danaus plexippus</i>	
		<i>Eurymus occidentalis</i>	
		<i>Pieris rapae</i>	
NYMPHALIDAE - Brushfooted butterflies			
		<i>Argynnis artones</i>	
		<i>Argynnis eurynome</i>	
		<i>Erebea epipsodea</i>	
		<i>Euphydryas anicia alena</i>	
		<i>Vanessa cardui</i>	
DANAIDAE - Milkweed butterflies			
		<i>Danaus plexippus</i>	
LYCAENIDAE - Lycaenid butterflies and allies			
		<i>Glaucopsyche</i> sp.	
		<i>Lycaena melissa annetta</i>	
		<i>Plebeius saepiolus</i>	
SATYRIDAE - Satyrs			
		unknown	
SPHINGIDAE - Hawk moths			
		<i>Celerio lineata</i>	
ARCTIIDAE - Tiger moths			
		<i>Halisidota argentata subalpina</i>	

		<i>Turuptiana permaculata</i>	
GEOMETRIDAE - Measuring worms, loopers			
		<i>Peridroma margaritosa</i>	
		<i>Semiothisa meadiaria</i>	
PYRALIDAE - Snout moths			
		<i>Homeosoma mucidellum</i>	
		<i>Parargyractis kearfottalis</i>	
GELECHIIDAE - Gelechid moths			
		<i>Aroga sp.</i>	
Diptera (order) - Flies			
CULICIDAE - Mosquitos			
		<i>Aedes atropalpus</i>	
		<i>Aedes dorsalis</i>	
		<i>Aedes increpitus</i>	
		<i>Aedes melanimon</i>	
		<i>Aedes nigromaculis</i>	
		<i>Aedes pullatus</i>	
		<i>Aedes vexans</i>	
		<i>Anopheles franciscanus</i>	
		<i>Anopheles freeborni</i>	
		<i>Culex tarsalis</i>	
		<i>Culiseta impatiens</i>	
		<i>Culiseta incidens</i>	
		<i>Culiseta inornata</i>	
NEMESTRINIDAE - Nemestrinids			
		<i>Hymnophloebe sp.</i>	
TENDIPEDIDAE - Gnats and midges			
		<i>Glyptotendidae lobiferous</i>	
		<i>Anatophnia near johnsoni</i>	
		<i>Eukiefferiella near similis</i>	
		<i>Paratendipes sp.</i>	
		<i>Paratendipes albimanus</i>	
		<i>Microtendipes caducus</i>	
		<i>Tendipes sp.</i>	
		<i>Polypedilum sp.</i>	

Appendix G

	<i>Polypedilum convictum</i>
	<i>Polypedilum scalaenum</i>
	<i>Tanytarsus</i> sp.
	<i>Tanytarsus obediens</i>
	<i>Calopsectra</i> sp.
	<i>Calopsectra exigua</i>
CERATOPOGONIDAE - Midges, punkies and allies	
	<i>Culicoides cockerellii</i>
	<i>Culicoides haematopotus</i>
	<i>Culicoides varipennis</i>
	<i>Leptoconops kerteszi</i>
BIBIOBIDAE - March flies	
	<i>Bibio melanopilosus</i>
	<i>Bibio nervosus</i>
	<i>Bibio xanthopus</i>
SIMULIIDAE - Buffalo gnats, black flies	
	<i>Simulium argus</i>
	<i>Simulium corbis</i>
	<i>Simulium griseum</i>
	<i>Simulium knowltoni</i>
	<i>Simulium piperi</i>
	<i>Simulium sayi</i>
	<i>Simulium trivittatum</i>
	<i>Simulium virgatum</i>
	<i>Simulium vittatum</i>
STRATIOMYIDAE - Soldier flies	
	<i>Eulalia hoodiana</i>
	<i>Euparyphus</i> sp.
	<i>Stratiomys</i> sp.
TABANIDAE - Horseflies, deerflies and allies	
	<i>Atylotus insuetus</i>
	<i>Chrysops</i> sp.
	<i>Silvius quadrivittatus</i>
	<i>Tabanus</i> sp.
	<i>Tabanus tetricus</i>
EMPIDIDAE - Dancce flies	

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Appendix G

	<i>Hemerodromia</i> sp.
<b>RHAGIONIDAE - Snipe-flies</b>	
	<i>Chrysophilis aretiventris</i>
	<i>Chrysophilis flavibarbis</i>
	<i>Chrysophilis modestus</i>
	<i>Chrysophilis proximus</i>
	<i>Chrysophilus testaceipes</i>
	<i>Chrysophilus tomentosus</i>
	<i>Symphoromyia fulvipes</i>
<b>BOMBYLIIDAE - Bee flies</b>	
	<i>Anthrax tigrina</i>
	<i>Villa sinuesa</i>
<b>ASILIDAE - Robber flies</b>	
	<i>Asilus avidus</i>
	<i>Asilus belli</i>
	<i>Cyrtopogon bimacula</i>
	<i>Dioctria pleuralis</i>
	<i>Erax argyrosoma</i>
	<i>Erax barbatus</i>
	<i>Erax dubius</i>
	<i>Erax productus</i>
	<i>Erax subpilosus</i>
	<i>Leptogaster hirtepes</i>
	<i>Mallophora guildiana</i>
	<i>Mallophora purdens</i>
	<i>Nicocles punctipennis</i>
	<i>Philonicus limpidipennis</i>
	<i>Proctacanthus arno</i>
	<i>Proctacanthus micans</i>
	<i>Promachus alvifacies</i>
	<i>Promachus princeps</i>
	<i>Pseudorus</i> sp.
	<i>Stenopogon inquinatus</i>
	<i>Stenopogon picticornis</i>
<b>DOLICHOPODIDAE - Long-headed flies</b>	
	<i>Chrysotus barbatus</i>



	<i>Chrysotus obliquus</i>	
	<i>Chrysotus parvulus</i>	
	<i>Diaphorus quadratus</i>	
	<i>Diaphorus triangulatus</i>	
	<i>Dolichopus appendiculatus</i>	
	<i>Dolichopus bakeri</i>	
	<i>Parasyntormon emarginatum</i>	
	<i>Parasyntormon fraterculus</i>	
	<i>Parasyntormon hinnulus</i>	
	<i>Parasyntormon montivagum</i>	
	<i>Pelastoneurus cyaneus</i>	
	<i>Pelastoneurus tibialis</i>	
	<i>Rhaphium femineum</i>	
	<i>Rhaphium spineitarsus</i>	
	<i>Rhaphium triangulatum</i>	
	<i>Scellus monstrosus</i>	
	<i>Syntormon cinereiventre</i>	
	<i>Syntormon strataegum</i>	
	<i>Syntormon tricoloripes</i>	
	<i>Tachytrechus angustipennis</i>	
	<i>Tachytrechus granditarsus</i>	
	<i>Thrypticus fraterculus</i>	
SYRPHIDAE - Flower flies and allies		
	<i>Arctophila flagrans</i>	
	<i>Chrysotoxum integrum</i>	
	<i>Copestylum caudatum</i>	
	<i>Copestylum marginatum</i>	
	<i>Elophilus fasciatus</i>	
	<i>Epistrophe 5-limbatus</i>	
	<i>Epistrophe quinquelimatus</i>	
	<i>Eristalis hirtus</i>	
	<i>Heliophilus ejuncida</i>	
	<i>Lunomyia cooleyi</i>	
	<i>Melanostoma dubium</i>	
	<i>Mesogramma marginatum</i>	
	<i>Metasyrphus latifasciatus</i>	

## Appendix G

	<i>Metasyrphus montivagus</i>
	<i>Parhelophilus laetus</i>
	<i>Platycheirus occidentalis</i>
	<i>Scaeva pyrastris</i>
	<i>Sphaerophoria sulphuripes</i>
	<i>Syrphus opinator</i>
	<i>Syrphus ribesii</i>
CONOPIDAE - Thick-headed flies	
	<i>Physocephala buccalis</i>
	<i>Zodion obliquefasciatum</i>
SCIOMYZIDAE (TETANOCERIDAE)	
	<i>Dictya</i> sp.
	<i>Dictya expansa</i>
SAPROMYZIDAE	
	<i>Homoneura occidentalis</i>
TEPHRITIDAE - Fruit flies	
	<i>Orelia occidentalis</i>
EPHYDRIDAE - Ephydrid flies	
	<i>Allotrichoma simplex</i>
	<i>Athyroglossa ordinata</i>
	<i>Brachydeutera</i> sp.
	<i>Dichaeta caudata atriventris</i>
	<i>Ephydra niveicens</i>
	<i>Ephydra riparia</i>
	<i>Hydrellia griseola</i>
	<i>Hydrina debilis</i>
	<i>Napaea appendiculata</i>
	<i>Napaea breviceps vincina</i>
	<i>Napaea incommoda</i>
	<i>Napaea paullula</i>
	<i>Notiphila macrochaeta</i>
	<i>Notiphila occidentalis</i>
	<i>Octhera mantis mantis</i>
	<i>Pelina compar</i>
	<i>Pelina truncatula</i>
	<i>Psilopa compta</i>

Appendix G

		<i>Psilopa olga</i>	
		<i>Scatella sibilans</i>	
		<i>Scatella stagnalis</i>	
		<i>Scatophila despacta</i>	
SARCOPHAGIDAE - Flesh flies			
		<i>Hystriconcnema plinthopyga</i>	
		<i>Sarcophaga iherminieri</i>	
		<i>Sarcophaga planifrons</i>	
		<i>Sarcophaga querula</i>	
PIPUNCULIDAE - Big-eyed flies			
		unknown	
TACHINIDAE - Tachina flies			
		<i>Achaetoneura archippivora</i>	
		<i>Chaetogaedia monticola</i>	
		<i>Dejeania vexatrix</i>	
		<i>Fabriciella brevirostris</i>	
		<i>Fabriciella spinosa</i>	
		<i>Gonia sequax</i>	
		<i>Hyposterna barbata</i>	
		<i>Juriniopsis adusta</i>	
		<i>Microphthalma disjuncta</i>	
		<i>Nemorilla floralis</i>	
		<i>Paradejeania rutilioides</i>	
		<i>Paradidyma singularis</i>	
		<i>Peleteria bryanti</i>	
		<i>Peleteria campestre</i>	
MUSCIDAE - Blow flies, house flies, etc.			
		<i>Fannia laevis</i>	
		<i>Fannia scalaris</i>	
		<i>Hylemya cilicrura</i>	
		<i>Neodexiopsis avata</i>	
		<i>Paregle cinerella</i>	
		<i>Pollenia rudis</i>	
HIPPOBOSCIDAE - Bird parasite flies			
		<i>Melophagus ovinus</i>	

Appendix G

<b>Siphonaptera (order) - Fleas</b>		
<b>CERATOPHYLLIDAE - Rodent fleas</b>		
		<i>Foxella ignot</i>
		<i>Malaraeus telchinum</i>
		<i>Megabothris abantis</i>
		<i>Monopsyllus eumolpi eumolpi</i>
		<i>Monopsyllus wagneri wagneri</i>
		<i>Opisocrostis hirsutus</i>
		<i>Opisocrostis tuberculatum</i>
		<i>Orchopeas sexdentatus agilis</i>
		<i>Orchopeas sexdentatus nevadensis</i>
		<i>Ceratophyllidae idahoensis</i>
<b>ECHIDNOPHAGIDAE</b>		
		<i>Echidnophaga gallinacea</i>
<b>HYSTRICHOPSYLLIDAE</b>		
		<i>Catallagia decipiens</i>
		<i>Diamanus montanus</i>
		<i>Epitedia wenmanni</i>
		<i>Megarhroglossus divisus divisus</i>
<b>PULICIDAE - Common fleas</b>		
		<i>Hoplopsyllus affinis</i>
		<i>Hoplopsyllus anomalus</i>
<b>Hymenoptera (order) - Bees, wasps, ants, and allies</b>		
<b>BRACONIDAE - Braconid flies</b>		
		<i>Euphoriana uniformis</i>
		<i>Trioxys sp.</i>
<b>POMPILIDAE - Spider wasps</b>		
		<i>Pepsis sp.</i>
<b>PTEROMALIDAE - Pteromalid parasites</b>		
		<i>Halticoptera aenea</i>
		<i>Pachyneuron sp.</i>
<b>ENCYRTIDAE - Encyrtid parasites</b>		
		<i>Chrysocharis sp.</i>
		<i>Cirrospilus flavoviridis</i>
		<i>Copidosoma sp.</i>

## Appendix G

85

		<i>Solenotus intermedius</i>	
		<i>Sympiesis sp.</i>	
EURYTOMIDAE - Eurytomid wasps			
		<i>Bruchophagus gibbus</i>	
VESPIDAE - Vespidae			
		<i>Polistes texanus</i>	
		<i>Eumeninae sp.</i>	
MUTILLIDAE - Velvet ants			
		<i>Dasymutilla fulvohirta</i>	
		<i>Dasymutilla klugii</i>	
		<i>Photopsis probinqua</i>	
HALICTIDAE			
		<i>Agapostemon cockerelli</i>	
		<i>Sphecodes sp.</i>	
TYPHIIDAE			
		unknown	
ANTHOPHORIDAE - Anthophorid bees			
		<i>Anthophora ignava</i>	
		<i>Anthophora neomexicana</i>	
		<i>Anthophora smithi</i>	
		<i>Melecta pacifica fulvida</i>	
		<i>Mellisodes hexacantha</i>	
COLLETIDAE			
		<i>Colletes compactus</i>	
MEGACHILIDAE - Leaf-cutting bees			
		<i>Argyropile nebraskana</i>	
		<i>Callanthidium sp.</i>	
		<i>Dianthidium ulkei</i>	
		<i>Lithurgus apicalis</i>	
		<i>Megachile dentitarsus</i>	
		<i>Megachile fidelis</i>	
		<i>Megachile nebraskana</i>	
		<i>Megachile pugnata</i>	
		<i>Megachile relativa</i>	
		<i>Osmia lignaria</i>	
XYLOCOPIDAE - Carpenter bees			

		<i>Xylocopa orbifex</i>	
APIDAE - Bumblebees			
		<i>Bombus centralis</i>	
		<i>Bombus impatiens</i>	
		<i>Bombus terricola</i>	
		<i>Bombus borealis</i>	
SPHECIDAE - Sphecid			
		<i>Sphecius grandis</i>	
		<i>Sphecinae</i> sp.	
		<i>Nyssininae</i> sp.	
		<i>Philanthinae</i> sp.	
<b>Formicidae (family) - Ants</b>			
<b>Ponerinae (subfamily) - Ponerine ants</b>			
		<i>Ponera opaciceps</i>	
<b>Myrmicinae (subfamily) - Harvesting ants</b>			
		<i>Myrmica emeryana emeryana</i>	
		<i>Myrmica emeryana tahoensis</i>	
		<i>Myrmica americana</i>	
		<i>Pogonomyrmex barbatus rugosus</i>	
	California harvester ant	<i>Pogonomyrmex californicus</i>	
		<i>Pogonomyrmex occidentalis occidentalis</i>	
		<i>Pogonomyrmex occidentalis commanche</i>	
		<i>Pheidole bicarnata buccalis</i>	
		<i>Pheidole californica</i>	
		<i>Pheidole ceres</i>	
		<i>Pheidole desertorum</i>	
		<i>Crematogaster lineolata emeryana</i>	
		<i>Monomorium minimum</i>	
		<i>Solenopsis molesta validiuscula</i>	
		<i>Solenopsis aurea</i>	
		<i>Myrmicina americana brevispinosa</i>	
		<i>Leptothorax nitens</i>	
		<i>Leptothorax rugulatus</i>	
		<i>Leptophorax tricatrinatus neomexicanus</i>	
<b>Dolichoderinae (subfamily)</b>			

		<i>Dorymyrmex pyramicus bicolor</i>	
		<i>Dorymyrmex pyramicus pyramicus</i>	
		<i>Iridomyrmex pruinosum analis</i>	
		<i>Liometopum occidentale luctuosum</i>	
		<i>Tapinoma sessile</i>	
<b>Formicinae (subfamily)</b>			
		<i>Campanotus sansabeanus</i>	
		<i>Campanotus vicinus</i>	
	Thatching ants	<i>Formica ciliata</i>	
	Common black ant	<i>Formica fusca</i>	
		<i>Formica moki</i>	
		<i>Formica neorufibarbis</i>	
		<i>Formica perpilosa</i>	
	Slavemaker	<i>Formica wheeleri</i>	
		<i>Lasius alienus americanus</i>	
		<i>Lasius flavus nearcticus</i>	
		<i>Lasius niger neoniger</i>	
	Honey-pot ants	<i>Myrmecocystus mexicanus hortideorum</i>	
	Honey-pot ants	<i>Myrmecocystus navajo</i>	
	Honey-pot ants	<i>Myrmecocystus semirufa</i>	
	Shining slavemaker	<i>Polyergus rugescens umbratus</i>	
<b>ARACHNIDS</b>			
<b>Arachnida (class) - Arachnids</b>			
<b>Scorpionida (order) - Scorpions</b>			
<b>BUTHIDAE</b>			
		<i>Centruroides vittatus</i>	
<b>CHACTIDAE</b>			
		<i>Superstitioniensis donensis</i>	
<b>VEJOVIDAE - Scorpions</b>			
		<i>Anuroctonus mordax</i>	
		<i>Hadrurus spadix</i>	
		<i>Vejovis sp.</i>	
<b>Araneida (order) - Spiders</b>			
<b>AVICULARIIDAE - Tarantulas</b>			

## Appendix G

		<i>Aphonopelma iodius</i>	
		<i>Aphonopelma vorhiesi</i>	
		<i>Eurypelma steindachneri</i>	
AMAUROBIIDAE - Amaurobids			
		<i>Callioplus nevadensis</i>	
		<i>Titanoeca americana</i>	
DICTYNIDAE - Dictynids			
		<i>Dictyna volucripes</i>	
		<i>Emblyna completa</i>	
ULOBORIDAE			
		<i>Uloborus utahensis</i>	
DIGUETIDAE			
		<i>Diguetia canities</i>	
PLECTREURIDAE			
		<i>Plectreurys tristis</i>	
LOXOSCELIDAE			
		<i>Loxosceles sp.</i>	
CAPONIIDAE			
		<i>Orthonops gertschi</i>	
SEGESTRIIDAE			
		<i>Ariadna bicolor</i>	
GNAPHOSIDAE			
		<i>Drassodes neglectus</i>	
		<i>Drassyllus apachus</i>	
		<i>Gnaphosa brumalis</i>	
		<i>Gnaphosa gigantea</i>	
		<i>Gnaphosa gosoga</i>	
		<i>Haplodrassus signifer</i>	
		<i>Herpyllus hesperolus</i>	
		<i>Herpyllus propinquus</i>	
		<i>Herpyllus vasifer</i>	
		<i>Peocilochroa montana</i>	
		<i>Rachodrassus flavus</i>	
		<i>Zelotes subterraneus</i>	
		<i>Zelotes lasalanus</i>	
PHOLCIDAE			



		<i>Physocyclus tanneri</i>	
		<i>Psilochorus utahensis</i>	
<b>THERIDIIDAE - Comb-footed spiders</b>			
		<i>Asagena americana</i>	
	Black widow spider	<i>Lactradectus mactans</i>	
		<i>Steatoda borealis</i>	
		<i>Theridion placens</i>	
<b>LINYPHIIDAE - Sheet-web weavers</b>			
		<i>Bathyphantes spatulifer</i>	
<b>ARGIOPIDAE - Orb-weavers</b>			
		<i>Aranea ocellata</i>	
		<i>Tetragnatha marginata</i>	
<b>THOMIDAE - Crab spiders</b>			
		<i>Philodromus virescens</i>	
		<i>Tibellus duttoni</i>	
		<i>Xysticus gulosus</i>	
		<i>Pardosa lapidicina</i>	
		<i>Pardosa mackenziana</i>	
		<i>Pardosa saniuana</i>	
<b>OXYOPIDAE</b>			
		<i>Oxyopes salticus</i>	
<b>SALTICIDAE - Jumping spiders</b>			
		<i>Dendryphantes capitatus</i>	
		<i>Dendryphantes diplacis</i>	
		<i>Icius annectans</i>	
		<i>Pellenes mimula</i>	
		<i>Pellenes splendens</i>	
		<i>Salticus albocinctus</i>	
		<i>Thiodina sylvana</i>	
<b>Hydracarina (order) - Water mites</b>			
<b>PROTZIIDAE</b>			
		<i>Calonyx sp.</i>	
<b>EYLIDAE</b>			
		<i>Eylais sp.</i>	
<b>HYDRYPHANTIDAE</b>			

Appendix G

		<i>Hydryphanties sp.</i>	
LEBERTIIDAE			
		<i>Libertia sp.</i>	
ASTRACTIDEIDAE			
		<i>Testudacarus sp.</i>	
HYGROBATIDAE			
		<i>Megapus sp.</i>	
<b>Acarina (order) - Mites and ticks</b>			
ARGASIDAE - Soft-bodied ticks			
		<i>Argus persicus</i>	
		<i>Ornithodoros eremicus</i>	<i>Peromyscus maniculatus</i> (Deer mouse)
		<i>Ornithodoros parkeri</i>	
		<i>Ornithodoros talaje</i>	
		<i>Otobius megnini</i>	
IXODIDAE - Hard-bodied ticks			
		<i>Dermacentor andersoni</i>	
		<i>Dermacentor parumapertus</i>	Jack rabbits and cottontails
	Rabbit tick	<i>Haemaphysalis leporis-palustris</i>	
		<i>Ixodes kingi</i>	<i>Cynomys</i> sp. (Prairie dog)
		<i>Ixodes sculptus</i>	<i>Citellus armatus</i> (Ground squirrel)
TROMBICULIDAE - Chiggers			
		<i>Acomatacarus arizonensis</i>	<i>Crotaphytus collaris</i> (collared lizard)
		<i>Euschongastia criceticola</i>	<i>Peromyscus maniculatus</i> (Deer mouse)
		<i>Euschongastia "D"</i>	<i>Citellus armatus</i> (Ground squirrel)
		<i>Euschongastia lacerta</i>	<i>Neotoma lepida</i> (Wood rat)
		<i>Euschongastia oregonensis</i>	<i>Ochontona princeps</i> (Pika)
		<i>Euschongastia pomerantzi</i>	<i>Eutamias umbrinus</i> (Chipmunk)
		<i>Euschongastia radfordi</i>	<i>Erethizon dorsatum</i> (Porcupine)
		<i>Trombicula arenicola</i>	<i>Dipodomys ordii</i>
		<i>Trombicula belkini</i>	<i>Crotaphytus collaris</i> (collared lizard)
		<i>Trombicula hoplai</i>	<i>Perognathus apache</i> (Pocket mouse)
		<i>Trombicula kardosi</i>	<i>Eutamias umbrinus</i> (Chipmunk)
		<i>Trombicula microti</i>	<i>Ochontona princeps</i> (Pika)
		<i>Trombicula potosina</i>	<i>Neotoma lepida</i> (Wood rat)
		<i>Walchia americana</i>	<i>Eutamias umbrinus</i> (Chipmunk)

91

Appendix G

		<i>Whartonia perplexa</i>	<i>Myotis californicus</i> (bat)
CAECULIDAE - Free-living mites			
		<i>Caeculus calechius</i>	
		<i>Caeculus tipus</i>	
ORBATULIDAE - Free-living mites			
		<i>Eporibatula</i>	

Appendix H

Streamside Zone	
Flora of streamsid es	
Horsetail	<i>Equisetum hiemale</i>
Horsetail	<i>Equisetum laevigatum</i>
Kansas horsetail	<i>Equisetum kansanum</i>
Tall horsetail	<i>Equisetum prealtum</i>
Narrowleaf cattail	<i>Typha angustifolia</i>
Wideleaf cattail	<i>Typha domingensis</i>
Red top	<i>Agrostis alba</i>
Bent grass	<i>Agrostis verticillata</i>
Side-oats grama	<i>Bouteloua curtipendula</i>
Saltgrass	<i>Distichlis stricta</i>
Saltgrass	<i>Distichlis spicata</i>
Barnyard grass	<i>Echinochloa crusgalli</i>
Reed cane	<i>Phragmites communis</i>
Polypogon grass	<i>Polypogon monspeliensis</i>
Dropseed grass	<i>Sporobolus contractus</i>
Sedge	<i>Carex lanuginosa</i>
Spike-rush	<i>Eliocharis macrostachya</i>
Spike-rush	<i>Eliocharis montevidensis</i>
Bulrush	<i>Scirpus acutus</i>
Bulrush	<i>Scirpus paludcsus</i>
Rush	<i>Juncus mertensianus</i>
Rush	<i>Juncus mexicanus</i>
Rush	<i>Juncus saximontanus</i>
Rush	<i>Juncus balticus</i>
Rush	<i>Juncus longistylus</i>
False solomonseal	<i>Smilacina stellata</i>
Fremont poplar	<i>Populus fremontii</i>
Sandbar willow	<i>Salix exigua</i>
Goodding willow	<i>Salix gooddingi</i>
Willow	<i>Salix laevigata</i>
Smartweed	<i>Polygonum lapathifolium</i>
Sandsperry	<i>Tissa sparsiflora</i>
Peppergrass	<i>Lepidium spp.</i>
Cliff rose	<i>Cowania stansburiana</i>
White sweet clover	<i>Melilotus albus</i>
Squawbush	<i>Rhus trilobata</i>
Squawbush	<i>Rhus utahensis</i>
Tamarix	<i>Tamarix pentandra</i>
Willowweed	<i>Epilobium adenocaulon</i>
Elkweed	<i>Swertia utahensis</i>
Dogbane	<i>Apocynum cannabinum</i>
Climbing milkweed	<i>Funastrum cynanchoides</i>
Climbing milkweed	<i>Funastrum heterophyllum</i>
Scarlet gilia	<i>Gilia aggregata</i>
Heliotrope	<i>Heliotropium convolvulaceum</i>

## Appendix H

Indian paintbrush	<i>Castilleja linariaefolia</i>
Beardtongue	<i>Penstemon ambiguus</i>
Baccharis	<i>Baccharis emoryi</i>
Fleabane	<i>Erigeron canadensis</i>
Sunflower	<i>Helianthus anomalus</i>
Arrowweed	<i>Pluchea sericea</i>
Wire lettuce	<i>Ptiloria tenuifolia</i>
Goldenrod	<i>Solidago elongata</i>
Sow thistle	<i>Sonchus oleraceus</i>
Gambel oak	<i>Quercus gambelii</i>
Hackberry	<i>Celtis douglasii</i>
Slender dropseed	<i>Muhlenbergia aspirifolia</i>
Wild rose	<i>Rosa nutkana</i>
Seepweed	<i>Suaeda occidentalis</i>
Goosefoot	<i>Chenopodium album</i>
Goosefoot	<i>Chenopodium fremontii</i>
Tansy-mustard	<i>Descurainia pinnata</i>
Bassia	<i>Bassia hyssopifolia</i>
Panic grass	<i>Panicum obtusum</i>
Switch grass	<i>Panicum virgatum</i>
Milkweed	<i>Asclepias funastrum</i>
Aster	<i>Aster spinosus</i>
Sedge	<i>Cyperus</i> sp.
	<i>Bryum</i> spp. (sterile species)
	<i>Funaria hygrometrica</i>
Liverwort	<i>Riccia frostii</i>
	<i>Didymodon tophaceus</i>
Liverwort	<i>Marchantia polymorpha</i>
	<i>Didymodon trifarius</i>
	<i>Eucladium verticillatum</i>
	<i>Gymnostomum recurvirostrum</i>
	<i>Gymnostomum aeruginosum</i>
	<i>Fissidens obtusifolius</i> var. <i>marginatus</i>
	<i>Barbula cruegeri</i>
<b>Avifauna of streamsides</b>	
Common Loon	<i>Gavia immer</i>
Eared Grebe	<i>Podiceps caspicus</i>
Western Grebe	<i>Aechmophorus occidentalis</i>
Pied-billed Grebe	<i>Podilymbus podiceps</i>
White Pelican	<i>Pelecanus erythrorhynchos</i>
Double-crested Cormorant	<i>Phalacrocorax auritus</i>
Great Blue Heron	<i>Ardea herodias</i>
Snowy Egret	<i>Leucophoyx thula</i>
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>
American Bittern	<i>Botaurus lentiginosus</i>
White-faced Ibis	<i>Plegadis chihi</i>
Whistling Swan	<i>Olor columbianus</i>

94

## Appendix H

Canada Goose	<i>Branta canadensis</i>
Snow Goose	<i>Chen hyperborea</i>
Mallard	<i>Anas platyrhynchos</i>
Gadwall	<i>Anas strepera</i>
Pintail	<i>Anas acuta</i>
Green-winged Teal	<i>Anas carolinensis</i>
Blue-winged Teal	<i>Anas discors</i>
Cinnamon Teal	<i>Anas cyanoptera</i>
American Widgeon	<i>Mareca americana</i>
Shoveler	<i>Spatula clypeata</i>
Redhead	<i>Aythya americana</i>
Canvasback	<i>Aythya valisineria</i>
Lesser Scaup	<i>Aythya affinis</i>
Bufflehead	<i>Bucephala clangula</i>
Ruddy Duck	<i>Oxyura jamaicensis</i>
Common Merganser	<i>Mergus merganser</i>
Red-breasted Merganser	<i>Mergus serrator</i>
Goshawk	<i>Accipiter gentilis</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Ferruginous Hawk	<i>Buteo regalis</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Pigeon Hawk	<i>Falco columbarius</i>
Sparrow Hawk	<i>Falco sparverius</i>
American Coot	<i>Fulica americana</i>
Killdeer	<i>Charadrius vociferus</i>
Common Snipe	<i>Capella gallinago</i>
Long-billed Curlew	<i>Numerius americanus</i>
Spotted Sandpiper	<i>Actitis macularia</i>
Solitary Sandpiper	<i>Tringa solitaria</i>
Willet	<i>Catoptrophorus semipalmatus</i>
Greater Yellowlegs	<i>Totanus melanoleucus</i>
Lesser Yellowlegs	<i>Totanus flavipes</i>
Baird's Sandpiper	<i>Erolia bairdii</i>
Least Sandpiper	<i>Erolia minutilla</i>
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>
Western Sandpiper	<i>Ereunetes mauri</i>
American Avocet	<i>Recurvirostra americana</i>
Wilson's Phalarope	<i>Steganopus tricolor</i>
California Gull	<i>Larus californicus</i>
Ring-billed Gull	<i>Larus delawarensis</i>
Franklin's Gull	<i>Larus pipixcan</i>
Bonaparte's Gull	<i>Larus philadelphia</i>
Black Tern	<i>Chlidonias niger</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Barn Owl	<i>Tyto alba</i>
Screech Owl	<i>Otus asio</i>

## Appendix H

Great Horned Owl	<i>Bubo virginianus</i>
Spotted Owl	<i>Strix occidentalis</i>
Long-eared Owl	<i>Asio otus</i>
Saw-whet Owl	<i>Aegolius acadicus</i>
Black-chinned Hummingbird	<i>Archilochus alexandri</i>
Costa's Hummingbird	<i>Calypte costae</i>
Broad-tailed Hummingbird	<i>Selasphorus platycercus</i>
Calliope Hummingbird	<i>Selasphorus calliope</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>
Red-shafted Flicker	<i>Colaptes cafer</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>
Downy Woodpecker	<i>Dendrocopos pubescens</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Cassin's Kingbird	<i>Tyrannus vociferans</i>
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>
Traill's Flycatcher	<i>Empidonax traillii</i>
Dusky Flycatcher	<i>Empidonax oberholseri</i>
Gray Flycatcher	<i>Empidonax wrightii</i>
Western Flycatcher	<i>Empidonax difficilis</i>
Western Wood Pewee	<i>Contopus sordidulus</i>
Olive-sided Flycatcher	<i>Nuttallornis borealis</i>
Violet-green Swallow	<i>Tachycineta thalassina</i>
Tree Swallow	<i>Iridoprocne bicolor</i>
Bank Swallow	<i>Riparia riparia</i>
Rough-winged Swallow	<i>Stelgidopteryx ruficollis</i>
Barn Swallow	<i>Hirundo rustica</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Scrub Jay	<i>Aphelocoma coerulescens</i>
Common Crow	<i>Corvus brachyrhynchos</i>
Black-capped Chickadee	<i>Parus atricapillus</i>
Mountain Chickadee	<i>Parus gambeli</i>
Common Bush-tit	<i>Psaltriparus minimus</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
Brown Creeper	<i>Certhia familiaris</i>
House Wren	<i>Troglodytes aedon</i>
Long-billed Marsh Wren	<i>Telmatodytes palustris</i>
Catbird	<i>Dumetella carolinensis</i>
Robin	<i>Turdus migratorius</i>
Hermit Thrush	<i>Hylocichla guttata</i>
Swainson's Thrush	<i>Hylocichla ustulata</i>
Western Bluebird	<i>Sialia mexicana</i>
Townsend's Solitaire	<i>Myadestes townsendi</i>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Phainopepla	<i>Phainopepla nitens</i>
Starling	<i>Sturnus vulgaris</i>
Gray Vireo	<i>Vireo vicinior</i>

Solitary Vireo	<i>Vireo solitarius</i>
Warbling Vireo	<i>Vireo gilvus</i>
Orange-crowned Warbler	<i>Vermivora celata</i>
Nashville Warbler	<i>Vermivora ruficapilla</i>
Virginia's Warbler	<i>Vermivora virginiae</i>
Lucy's Warbler	<i>Vermivora luciae</i>
Yellow Warbler	<i>Dendroica petechia</i>
Audubon's Warbler	<i>Dendroica auduboni</i>
Townsend's Warbler	<i>Dendroica townsendi</i>
Northern Waterthrush	<i>Seiurus noveboracensis</i>
MacGillivray's Warbler	<i>Oporornis tolmiei</i>
Yellowthroat	<i>Geothlypis trichas</i>
Yellow-breasted Chat	<i>Icteria virens</i>
Wilson's Warbler	<i>Wilsonia pusilla</i>
House Sparrow	<i>Passer domesticus</i>
Bobolink	<i>Dolichonyx oryzivorus</i>
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>
Redwinged Blackbird	<i>Agelaius phoeniceus</i>
Scott's Oriole	<i>Icterus parisorum</i>
Bullock's Oriole	<i>Icterus bullockii</i>
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Western Tanager	<i>Piranga ludoviciana</i>
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>
Blue Grosbeak	<i>Guiraca caerulea</i>
Lazuli Bunting	<i>Passerina amoena</i>
Pine Siskin	<i>Spinus pinus</i>
American Goldfinch	<i>Spinus tristis</i>
Lesser Goldfinch	<i>Spinus psaltria</i>
Green-tailed Towhee	<i>Chlorura chlorura</i>
Rufous-sided Towhee	<i>Pipilo erythrophthalmus</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Vesper Sparrow	<i>Poocetes gramineus</i>
Lark Sparrow	<i>Chondestes grammacus</i>
Slate-colored Junco	<i>Junco hyemalis</i>
Oregon Junco	<i>Junco oreganus</i>
Gray-headed Junco	<i>Junco caniceps</i>
Tree Sparrow	<i>Spizella arborea</i>
Harris' Sparrow	<i>Zonotrichia querula</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
Fox Sparrow	<i>Passerella iliaca</i>
Lincoln's Sparrow	<i>Melospiza lincolni</i>
Song Sparrow	<i>Melospiza melodia</i>
<b>Mammals of streamsides</b>	
White-tailed antelope squirrel	<i>Citellus leucurus</i>
Great Basin pocket mouse	<i>Perognathus parvus</i>
Western harvest mouse	<i>Reithrodontomys megalotis</i>



97

Appendix H

Canyon mouse	<i>Peromyscus crinitus</i>
Deer mouse	<i>Peromyscus maniculatus</i>
Brush mouse	<i>Peromyscus boylii</i>
Desert wood rat	<i>Neotoma lepida</i>
Beaver	<i>Castor canadensis repentinus</i>
Coyote	<i>Canis latrans mearnsi</i>
Long-tailed weasel	<i>Mustela frenata nevadensis</i>
Bobcat	<i>Lynx rufus baileyi</i>
Mule deer	<i>Odocoileus hemionus hemionus</i>

Terrace Zone	
Terrace Vegetation	
Green jointfir	<i>Ephedra viridis</i>
Panic-grass	<i>Panicum spp.</i>
Dropseed grass	<i>Sporobolus airoides</i>
Dropseed grass	<i>Sporobolus asperifolia</i>
Dropseed grass	<i>Sporobolus cryptandrus</i>
Dropseed grass	<i>Sporobolus contractus</i>
Gambel oak	<i>Quercus gambelii</i>
Four-wing saltbush	<i>Atriplex canescens</i>
Shadscale	<i>Atriplex confertifolia</i>
Garrett saltbush	<i>Atriplex garrettii</i>
Greasewood	<i>Sarcobatus vermiculatus</i>
Clematis	<i>Clematis ligustifolia</i>
Barberry	<i>Berberis fremontii</i>
Peppergrass	<i>Lepidium apetalum</i>
Peppergrass	<i>Lepidium montanum</i>
Peppergrass	<i>Lepidium densiflorum</i>
Prince's plume	<i>Stanleya pinnata</i>
Yellow bee-plant	<i>Cleome luteus</i>
Bitterbrush	<i>Pershia tridentata</i>
Prairie clover	<i>Petalostemon candidum</i>
Prairie clover	<i>Petalostemon flavescens</i>
Globe mallow	<i>Sphaeralcea grossulariaefolia var. pedata</i>
Mallow	<i>Sphaeralcea coccinea</i>
Yellow evening primrose	<i>Oenothera hookeri</i>
Evening primrose	<i>Oenothera albicaulis</i>
Evening primrose	<i>Oenothera caespitosa var. marginata</i>
Evening primrose	<i>Oenothera pallida</i>
Adelia	<i>Forestiera neomexicana</i>
Gilia	<i>Gilia gunnisoni</i>
Gilia	<i>Gilia aggregata var. arizonica</i>
Gilia	<i>Gilia congesta</i>
Gilia	<i>Gilia leptomeria</i>
Gilia	<i>Gilia sinuata</i>
Coldenia	<i>Coldenia hispidissima</i>
Sacred datura, jimson weed	<i>Datura meteloides</i>
Beardtongue	<i>Penstemon ambiguus</i>
Penstemon	<i>Penstemon pachyphyllus</i>
Aster	<i>Aster spinosus</i>
Sand sagebrush	<i>Artemisia filifolia</i>
Mountain sagebrush	<i>Artemisia frigida</i>
Sagebrush	<i>Artemisia ludoviciana</i>
Sagebrush	<i>Artemisia ludoviciana var. gnaphalodes</i>
Rabbitbrush	<i>Chrysothamnus nauseosus</i>
Varnish-leaf rabbitbrush	<i>Chrysothamnus viscidiflorus</i>
Fleabane	<i>Erigeron argentatus</i>

## Appendix I

Gumweed	<i>Grindelia fastigiata</i>
Arrowweed	<i>Pluchea sericea</i>
Tall inkweed	<i>Suaeda intermedia</i>
Three-lobed sqawbush	<i>Rhus trilobata</i>
Poison sumac	<i>Rhus toxicodendron</i>
Cheat grass	<i>Bromus tectorum</i>
Cheat grass	<i>Bromus rubens</i>
Fescue grass	<i>Festuca octoflora</i>
Nevada wild onion	<i>Allium nevadensis</i>
Tumble mustard	<i>Sisymbrium altissimum</i>
	<i>Cymopterus globosus</i>
	<i>Cymopterus newberryi</i>
Narrow-leaved yucca	<i>Yucca angustissima</i>
Harriman yucca	<i>Yucca harrimaniae</i>
Blackbrush	<i>Coleogyne ramosissima</i>
Hedgehog cactus	<i>Echinocereus aggregatus</i>
Fendler hedgehog cactus	<i>Echinocereus fendleri</i>
Cactus	<i>Pediocactus simpsoni</i>
Cactus	<i>Sclerocactus parviflorus</i>
Cactus	<i>Opuntia polycantha</i>
Cactus	<i>Opuntia hystricina</i>
Thompson indigo bush	<i>Dalea thompsoni</i>
Fremont indigo bush	<i>Dalea fremontii</i>
Water jacket	<i>Lycium andersoni</i>
Squaw thorn	<i>Lycium torreyi</i>
Matchweed	<i>Gutierrezia microcephala</i>
Matchweed	<i>Gutierrezia sarothrae</i>
Fremont cottonwood	<i>Populus fremonti</i>
Hackberry	<i>Celtis douglasii</i>
Indian rice grass	<i>Oryzopsis hymenoides</i>
Muhlenbergia	<i>Muhlenbergia pungens</i>
Needle and thread grass	<i>Stipa comata</i> var. <i>intermedia</i>
Three-awn grass	<i>Aristida longiseta</i>
Three-awn grass	<i>Aristida fendleriana</i>
Long-tongued mutton grass	<i>Poa longiligula</i>
Mutton grass	<i>Poa fendleriana</i>
Sandberg bluegrass	<i>Poa secunda</i>
Fluff grass	<i>Tridens pulchellus</i>
Salt grass	<i>Distichlis stricta</i>
Bluestem	<i>Agropyron smithii</i>
Wild-rye	<i>Elymus glaucus</i>
Prairie wedgegrass	<i>Sphenopholis obtusata</i>
Mesa dropseed	<i>Sporobolis flexuosus</i>
Blue grama	<i>Bouteloua gracilis</i>
Side-oats grama	<i>Bouteloua curtipendula</i>
Cordgrass	<i>Spartina gracilis</i>
Sandbur	<i>Cenchrus pauciflorus</i>
Green foxtail	<i>Chaetochloa viridis</i>
Galleta grass	<i>Hilaria jamesii</i>
Beard grass	<i>Andropogon scoparius</i>

## Appendix I

False toadflax	<i>Commandra pallida</i>
Eriogonum	<i>Eriogonum alatum</i>
Bottlestopper	<i>Eriogonum inflatum</i>
Eriogonum	<i>Eriogonum deflexum</i>
Eriogonum	<i>Eriogonum simpsoni</i>
Dock	<i>Rumex venosus</i>
Lambs-quarters	<i>Chenopodium album</i>
Freemont goosefoot	<i>Chenopodium fremontii</i>
Goosefoot	<i>Chenopodium leptophyllum</i>
Molly	<i>Kochia scoparia</i>
Sand verberna	<i>Abronia elliptica</i>
Sand verberna	<i>Abronia salsa</i>
Allionia	<i>Allionia incarnata</i>
Larkspur	<i>Delphinium scaposum</i>
Prickly poppy	<i>Argemone intermedia</i>
Streptanthus	<i>Streptanthus longirostris</i>
Tansy-mustard	<i>Descurainia pinnata</i>
Thelypodium	<i>Thelypodium integrifolium</i>
Rock cress	<i>Arabis sp.</i>
Lupine	<i>Lupinus caudatus</i>
Lupine	<i>Lupinus pusillus</i>
Lupine	<i>Lupinus sparsiflorus</i>
White sweetclover	<i>Melilotus alba</i>
Scurf-pea	<i>Psoralea juncea</i>
Scurf-pea	<i>Psoralea lanceolata</i>
Locoweed	<i>Astragalus diphysus</i>
Locoweed	<i>Astragalus arctus</i>
Locoweed	<i>Astragalus preussii</i>
Locoweed	<i>Astragalus subcinereus</i>
Locoweed	<i>Astragalus spp.</i>
Licorice	<i>Glycyrrhiza lepidota</i>
Cicarta, filaree, alfilaria	<i>Erodium cicutarium</i>
Polygala	<i>Polygala acanthoclada</i>
Fendler spurge	<i>Euphorbia fendleri</i>
Parry spurge	<i>Euphorbia parryi</i>
Blazing star	<i>Mentzelia albicaulis</i>
Blazing star	<i>Mentzelia laevicaulis</i>
Blazing star	<i>Mentzelia pumila</i>
Frasera	<i>Frasera utahensis</i>
Milkweed	<i>Asclepias cryptoceras</i>
Milkweed	<i>Asclepias latifolia</i>
Milkweed	<i>Asclepias speciosa</i>
Climbing milkweed	<i>Funastrum cynanchoides</i>
Phacelia	<i>Phacelia crenulata</i>
Euploca	<i>Euploca convolvulacea</i>
Cryptanthe	<i>Cryptanthe fendleri</i>
Cryptanthe	<i>Cryptanthe flava</i>
Cryptanthe	<i>Cryptanthe spp.</i>
Mint	<i>Poliomintha incana</i>
Paintbrush	<i>Castilleja linariaefolia</i>

## Appendix I

Cordylanthus	<i>Cordylanthus parviflorus</i>
Broomrape	<i>Orobanche fasciculata</i>
Plantain	<i>Plantago purshii</i>
Brickelia	<i>Brickelia longifolia</i>
Golden aster	<i>Chrysopsis villosus</i>
Townsendia	<i>Townsendia incana</i>
Aster	<i>Aster cichoriaceus</i>
Bur-sage	<i>Franseria acanthicarpa</i>
Wyethia	<i>Wyethia scabra</i>
Sunflower	<i>Helianthus anomalus</i>
Encelia	<i>Encelia frutescens</i>
Hymenopappus	<i>Hymenopappus lugens</i>
Gaillardia	<i>Gaillardia pinnatifida</i>
Dyssodia	<i>Dyssodia acerosa</i>
Dyssodia	<i>Dyssodia pentachaeta</i>
Chaenactis	<i>Chaenactis stevioides</i>
Thistle	<i>Cirsium pulchellum</i>
Lygodesmia	<i>Lygodesmia grandiflora</i>
Ptiloria	<i>Ptiloria</i> spp.
<b>Terrace Avifauna</b>	
Marsh Hawk	<i>Circus cyaneus</i>
Sparrow Hawk	<i>Falco sparverius</i>
Gambel's Quail	<i>Lophortyx gambelii</i>
Chukar	<i>Alectoris graeca</i>
Mourning Dove	<i>Zenaidura macroura</i>
Roadrunner	<i>Geococcyx californianus</i>
Burrowing Owl	<i>Speotyto cunicularia</i>
Poor-will	<i>Phalaenoptilus nuttallii</i>
Common Nighthawk	<i>Chordeiles minor</i>
Black-chinned Hummingbird	<i>Archilochus alexandri</i>
Costa's Hummingbird	<i>Calypte costae</i>
Broad-tailed Hummingbird	<i>Selasphorus platycercus</i>
Calliope Hummingbird	<i>Selasphorus calliope</i>
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>
Say's Phoebe	<i>Sayornis saya</i>
Horned Lark	<i>Eremophila alpestris</i>
Violet-green Swallow	<i>Tachycineta thalassina</i>
Pinyon Jay	<i>Gymnorhinus cyanocephala</i>
Plain Titmouse	<i>Parus inornatus</i>
Bewick's Wren	<i>Thryomanes bewickii</i>
Rock Wren	<i>Salpinctes obsoletus</i>
Mockingbird	<i>Mimus polyglottos</i>
Bendire's Thrasher	<i>Toxostoma bendirei</i>
Sage Thrasher	<i>Oreoscoptes montanus</i>
Mountain Bluebird	<i>Sialia currucoides</i>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Water Pipit	<i>Anthus spinoletta</i>

102

## Appendix I

Northern Shrike	<i>Lanius excubitor</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Western Meadowlark	<i>Sturnella neglecta</i>
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>
Blue Grosbeak	<i>Guiraca caerulea</i>
American Goldfinch	<i>Spinus tristis</i>
Lark Sparrow	<i>Chondestes grammacus</i>
Black-throated Sparrow	<i>Amphispiza bilineata</i>
Sage Sparrow	<i>Amphispiza belli</i>
Chipping Sparrow	<i>Spizella passerina</i>
Brewer's Sparrow	<i>Spizella breweri</i>
<b>Mammals of Terraces</b>	
Rock squirrel	<i>Citellus variegatus</i>
White-tailed antelope squirrel	<i>Citellus leucurus</i>
Colorado chipmunk	<i>Eutamias quadrivittatus</i>
Apache pocket mouse	<i>Perognathus apache caryi</i>
Little pocket mouse	<i>Perognathus longimembris</i>
Great Basin pocket mouse	<i>Perognathus parvus</i>
Long-tailed pocket mouse	<i>Perognathus formosus</i>
Rock pocket mouse	<i>Perognathus intermedius</i>
Ord's kangaroo rat	<i>Dipodomys ordii sanrafaeli</i>
Western harvest mouse	<i>Rethrodontomys megalotis megalotis</i>
Canyon mouse	<i>Peromyscus crinitus</i>
Deer mouse	<i>Peromyscus maniculatus</i>
Brush mouse	<i>Peromyscus boylii</i>
Pinyon mouse	<i>Peromyscus truei</i>
Northern grasshopper mouse	<i>Onychomys leucogaster</i>
White-throated wood rat	<i>Neotoma albigula</i>
Mexican wood rat	<i>Neotoma mexicana</i>
Desert wood rat	<i>Neotoma lepida</i>
Bushy-tailed wood rat	<i>Neotoma cinerea</i>
Silky pocket mouse	<i>Perognathus flavus hopiensis</i>
Porcupine	<i>Erethizon dorsatum</i>
Badger	<i>Taxidea taxus berlandieri</i>

## Appendix J

Hillside Zone	
Flora of Hillsides	
Shadscale	<i>Atriplex confertifolia</i>
Cuneate saltbush	<i>Atriplex cuneata</i>
Garrett saltbush	<i>Atriplex garrettii</i>
Joint-fir	<i>Ephedra torreyana</i>
Joint-fir	<i>Ephedra viridis</i>
Blackbrush	<i>Coleogyne ramosissima</i>
Indian rice-grass	<i>Oryzopsis hymenoides</i>
Galleta grass	<i>Hilaria jamesii</i>
Saltbush	<i>Atriplex saccaria</i>
Water jacket	<i>Lycium andersoni</i>
Squaw thorn	<i>Lycium torreyi</i>
Indigo bush	<i>Dalea thompsoni</i>
Indigo bush	<i>Dalea fremonti</i>
Narrow-leafed yucca	<i>Yucca angustissima</i>
Harriman yucca	<i>Yucca harrimaniae</i>
Cactus	<i>Opuntia rhodantha</i>
Cactus	<i>Opuntia polykantha</i>
Cactus	<i>Opuntia hystricina</i>
Hedgehog cactus	<i>Echinocereus aggregata</i>
Hedgehog cactus	<i>Echinocereus engelmannii</i>
Hedgehog cactus	<i>Echinocereus fendleri</i>
Hedgehog cactus	<i>Sclerocactus whipplei</i>
Matchweed	<i>Gutierrezia microcephala</i>
Rabbit brush	<i>Chrysothamnus stenophyllus</i>
Four-winged saltbush	<i>Atriplex canescens</i>
Smaller rabbitbrush	<i>Chrysothamnus viscidiflorus</i>
Smaller rabbitbrush	<i>Chrysothamnus viscidiflorus</i> var. <i>tortifolius</i>
Utah serviceberry	<i>Amelanchier utahensis</i>
Hackberry	<i>Celtis douglasii</i>
Fremont barberry	<i>Berberis fremontii</i>
Brome grass	<i>Bromus rubens</i>
Cheat grass	<i>Bromus tectorum</i>
Fescue grass	<i>Festuca octoflora</i>
Mutton grass	<i>Poa fendleriana</i>
Long-tongued mutton grass	<i>Poa longiligula</i>
Nevada blue grass	<i>Poa nevadensis</i>
Fluff grass	<i>Tridens pulchella</i>
Slender wheatgrass	<i>Agropyron trachycaulum</i>
Muhlenbergia	<i>Muhlenbergia pungens</i>
Dropseed	<i>Sporobolus contractus</i>
Dropseed	<i>Sporobolus cryptandrus</i>
Dropseed	<i>Sporobolus flexuosus</i>
Needle grass	<i>Stipa comata</i> var. <i>intermedia</i>
Needle grass	<i>Stipa neomexicana</i>
Three-awn grass	<i>Aristida fendleriana</i>

104

## Appendix J

Three-awn grass	<i>Aristida longiseta</i>
Side-oats grama	<i>Bouteloua curtipendula</i>
Black grama	<i>Bouteloua eriopoda</i>
Blue grama	<i>Bouteloua gracilis</i>
Six-weeks grama	<i>Bouteloua barbata</i>
Sand bluestem	<i>Andropogon hallii</i>
Big bluestem	<i>Andropogon gerardi</i>
Little bluestem	<i>Andropogon scoparius</i>
Wolftail	<i>Lycurus phleoides</i>
Prairie wedgegrass	<i>Sphenopholis obtusata</i>
Feather fingergrass	<i>Chloris virgata</i>
Wild onion	<i>Allium neevadense</i>
Sego lily	<i>Calochortus nuttallii</i>
Mariposa lily	<i>Calochortus flexuosus</i>
False toadflax	<i>Comandra pallida</i>
Eriogonum	<i>Eriogonum alatum</i>
Eriogonum	<i>Eriogonum deflexum</i>
Bottlestopper	<i>Eriogonum inflatum</i>
Eriogonum	<i>Eriogonum ovalifolium</i>
Eriogonum	<i>Eriogonum shockleyi</i>
Eriogonum	<i>Eriogonum wetherillii</i>
Narrow-leafed goosefoot	<i>Chenopodium leptophyllum</i>
Russian thistle	<i>Salsola kali</i> var. <i>tenuifolia</i>
Sand puffs	<i>Abronia salsa</i>
Allionia	<i>Allionia icarnata</i>
Allionia	<i>Allionia linearis</i>
Sand four o'clock	<i>Tripterocalyx pedunculatus</i>
Sandwort	<i>Arenaria fendleri</i>
Prickly poppy	<i>Argemone intermedia</i>
Prince's plume	<i>Stanleya pinnata</i>
Streptanthus	<i>Streptanthus longirostris</i>
Peppergrass	<i>Lepidium eastwoodiae</i>
Peppergrass	<i>Lepidium montanum</i>
Bladderpod	<i>Physaria didymocarpa</i>
Rock cress	<i>Arabis</i> sp.
Yellow beeflower	<i>Cleome lutea</i>
Lupine	<i>Lupinus pusillus</i>
Locoweed	<i>Astragalus</i> spp.
Euphorbia	<i>Euphorbia fendleri</i>
Globe mallow	<i>Sphaeralcea coccinea</i>
Globe mallow	<i>Sphaeralcea grossulariaefolia</i>
Stick leaf	<i>Mentzelia pumila</i>
Blazing star	<i>Mentzelia multiflora</i>
Evening primrose	<i>Oenothera albicaulis</i>
White evening primrose	<i>Oenothera pallida</i>
Evening primrose	<i>Oenothera scapoidea</i>
Cymopteris	<i>Cymopteris fendleri</i>
Cymopteris	<i>Cymopteris globosus</i>
Frasera	<i>Frasera utahensis</i>
Navarretia	<i>Navarretia setosissima</i>



105

Appendix J

Scarlet gilia	<i>Gilia aggregata</i> var. <i>arizonica</i>
Gilia	<i>Gilia congesta</i>
Gilia	<i>Gilia leptomeria</i>
Gunnison gilia	<i>Gilia gunnisoni</i>
Gilia	<i>Gilia sinuata</i>
Phacelia	<i>Phacelia crenulata</i>
Phacelia	<i>Phacelia linearis</i>
Coldenia	<i>Coldenia hispidissima</i>
Cryptanthe	<i>Cryptanthe fendleri</i>
Cryptanthe	<i>Cryptanthe flava</i>
Cryptanthe	<i>Cryptanthe</i> spp.
Sacred datura, jimson weed	<i>Datura meteloides</i>
Penstemon	<i>Penstemon pachyphyllus</i>
Penstemon	<i>Penstemon utahensis</i>
Paint brush	<i>Castilleja linariaefolia</i>
Plantain	<i>Plantago pushii</i>
Golden aster	<i>Chrysopsis villosa</i>
Goldenrod	<i>Solidago petradoria</i>
Aplopappus	<i>Aplopappus scopulorum</i>
Townsendia	<i>Townsendia incana</i>
Fleabane	<i>Erigeron divergens</i>
Fleabane	<i>Erigeron argentatus</i>
Fleabane	<i>Erigeron engelmanni</i>
Bur sage	<i>Franseria acanthicarpa</i>
Mule ear	<i>Wyethia scabra</i>
Common sunflower	<i>Helianthus annuus</i>
Sunflower	<i>Helianthus anomalus</i>
Encelia	<i>Encelia frutescens</i>
Hymenopappus	<i>Hymenopappus cinereus</i>
Hymenopappus	<i>Hymenopappus eriopodus</i>
Hymenoxys	<i>Hymenoxys acaulis</i> var. <i>arizonica</i>
Hymenoxys	<i>Hymenoxys leptoclada</i> var. <i>invesiana</i>
Chaenactis	<i>Chaenactis stevioides</i>
Gaillardia	<i>Gaillardia pinnatifida</i>
Dyssodia	<i>Dyssodia acerosa</i>
Dyssodia	<i>Dyssodia pentachaeta</i>
Sagebrush	<i>Artemisia frigida</i>
Senecio	<i>Senecio</i> spp.
Thistle	<i>Cirsium pulchellum</i>
Rush pink	<i>Lygodesmia grandiflora</i>
Ptiloria	<i>Ptiloria</i> sp.
	<i>Tridens pulchella</i>
Borage	<i>Coldenia hispidissima</i>
	<i>Tripterocalyx pedunculatus</i>
	<i>Allionia linearis</i>
Fleabane	<i>Erigeron engelmanni</i>
Brittlebrush	<i>Encelia frutescens</i>
Hymenopappus	<i>Hymenopappus cinereus</i>
Blanket flower	<i>Gaillardia pinnatifida</i>
Indian rice grass	<i>Oryzopsis hymenoides</i>

106

Appendix J

Grama	<i>Bouteloua gracilis</i>
Bottletopper	<i>Eriogonum inflatum</i>
Loçoweed	<i>Astragalus preussii</i>
Spurge	<i>Euphorbia fendleri</i>
Globemallow	<i>Sphaeralcea grossulariaefolia</i>
	<i>Cryptanthe flava</i>
Gambel oak	<i>Quercus gambelii</i>
Hackberry	<i>Hilaria jamesii</i>
Round-leafed buffaloberry	<i>Shepherdia rotundifolia</i>
Antelope brush	<i>Purshia tridentata</i>
Cliff rose	<i>Cowania mexicana</i>
Utah serviceberry	<i>Amelanchier utahensis</i>
Single-leaf ash	<i>Fraxinus anomala</i>
Single-leaf squawbush	<i>Rhus</i> sp.
Winterfat	<i>Eurotia lanata</i>
	<i>Tortula ruralis</i>
	<i>Barbula vinealis</i>
	<i>Barbula beschernellei</i>
	<i>Tortula inermis</i>
	<i>Tortula brevipes</i>
	<i>Weisia ligulaefolia</i>
	<i>Weisia perligulata</i>
	<i>Funaria muhlenbergii</i> var. <i>lineata</i>
	<i>Crossidium aberrans</i>
	<i>Crossidium desertorum</i>
	<i>Crossidium griseum</i>
	<i>Desmatodon convolutus</i>
	<i>Encalypta vulgaris</i> var. <i>mutica</i>
	<i>Grimmia orgicularis</i>
	<i>Grimmia anodon</i>
	<i>Grimmia plagiopodia</i>
	<i>Grimmia raii</i>
	<i>Leskea tactorum</i>
lichens :	
	<i>Psora decipiens</i>
	<i>Psora decipiens dealbata</i>
	<i>Psora crenata</i>
	<i>Psora crenata dealbata</i>
	<i>Lecanora lentigera</i>
	<i>Toninia caeruleonigricans</i>
<b>Avifauna of Hillsides</b>	
Turkey Vulture	<i>Cathartes aura</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Ferruginous Hawk	<i>Buteo regalis</i>
Golden Eagle	<i>Aquila chrysaetos</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>

## Appendix J

Prairie Falcon	<i>Falco mexicanus</i>
Sparrow Hawk	<i>Falco sparverius</i>
Chukar	<i>Alectoris graeca</i>
Great Horned Owl	<i>Bubo virginianus</i>
Common Nighthawk	<i>Chordeiles minor</i>
White-throated Swift	<i>Aeronautes saxatalis</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Common Raven	<i>Corvus corax</i>
Canyon Wren	<i>Catherpes mexicanus</i>
Rock Wren	<i>Salpinctes obsoletus</i>
<b>Mammals of Hillside</b>	
White-tailed antelope squirrel	<i>Citellus leucurus</i>
Colorado chipmunk	<i>Eutamias quadrivittatus</i>
Little pocket mouse	<i>Perognathus longimembris</i>
Great Basin pocket mouse	<i>Perognathus parvus</i>
Long-tailed pocket mouse	<i>Perognathus formosus</i>
Rock pocket mouse	<i>Perognathus intermedius</i>
Ord's kangaroo rat	<i>Dipodomys ordii</i>
Western harvest mouse	<i>Reithrodontomys megalotis</i>
Canyon mouse	<i>Peromyscus crinitus</i>
Deer mouse	<i>Peromyscus maniculatus</i>
Brush mouse	<i>Peromyscus boylii</i>
Mexican wood rat	<i>Neotoma mexicana</i>
Desert wood rat	<i>Neotoma lepida</i>
Bushy-tailed wood rat	<i>Neotoma cinerea</i>
Rock squirrel	<i>Citellus variegata grammurus</i>
Long-tailed weasel	<i>Mustela frenata nevadensis</i>
Western spotted skunk	<i>Spilogale gracilis</i>
Bobcat	<i>Lynx rufus baileyi</i>

## Appendix K

<b>Vegetation in Wide Canyons -</b>		
<b>North Wash (river mile 167.7)</b>		
<b>Farley Canyon (river mile 163.1)</b>		
<b>White Canyon (river mile 162.8)</b>		
<b>Trachyte Canyon (river mile 161.5)</b>		
<b>Red Canyon (river mile 149.7)</b>		
<b>Dominant trees :</b>		
	Sandbar willow	<i>Salix exigua</i>
	Tamarix or salt cedar	<i>Tamarix pentandra</i>
<b>Frequent trees :</b>		
	Goodding willow	<i>Salix gooddingi</i>
	Fremont cottonwood	<i>Populus fremontii</i>
<b>Dominant herbs :</b>		
	Salt grass	<i>Distichlis stricta</i>
	Scratch grass	<i>Muhlenbergia aspirifolia</i>
	Baltic rush	<i>Juncus balticus</i>
	Spike-rush	<i>Eleocharis palustris</i>
	Spike-rush	<i>Eleocharis rostellata</i>
	Spike-rush	<i>Eleocharis acicularis</i>
	Sedge	<i>Carex</i> spp.
<b>Frequent herbs :</b>		
	Horsetail	<i>Equisetum kansanum</i>
	Wide-leafed cattail	<i>Typha latifolia</i>
	Narrow-leafed cattail	<i>Typha domingensis</i>
	Common reed	<i>Phragmites communis</i>
	Nuttall alkali grass	<i>Puccinellia airoides</i>
	Foxtail barley	<i>Hordeum jubatum</i>
	Tule	<i>Scirpus acutus</i>
	Bulrush	<i>Scirpus paludosus</i>
<b>Where flood plains occur :</b>		
	Kansas horsetail	<i>Equisetum kansanum</i>
	Arrowgrass	<i>Triglochin maritima</i>
	Annual beard grass	<i>Polypogon monspeliensis</i>
	Barnyard grass	<i>Echinochloa crus-galli</i>

## Appendix K

109

	Switch grass	<i>Panicum virgatum</i>
	Nuttall alkali grass	<i>Puccinellia airoides</i>
	Salt grass	<i>Distichlis stricta</i>
	Foxtail barley	<i>Hordeum jubatum</i>
	Spike-rush	<i>Eleocharis acicularis</i>
	Sedge	<i>Carex</i> spp.
	Rush	<i>Juncus</i> spp.
	Trailing buttercup	<i>Ranunculus cymbalaria</i>
	Greasewood	<i>Sarcobatus vermiculatus</i>
	Tall inkweed	<i>Suaeda intermedia</i>
	Lambs-quarters	<i>Chenopodium album</i>
	Hastate saltbush	<i>Atriplex hastata</i>
	White sweetclover	<i>Melilotus albus</i>
	Alkali weed	<i>Cressa truxillensis</i>
	Milkweed	<i>Asclepias speciosa</i>
	Dogbane	<i>Apocynum cannabinum</i>
	Composite	<i>Oxytaenia acerosa</i>
	Cocklebur	<i>Xanthium pennsylvanicum</i>
	Cudweed	<i>Gnaphalium palustre</i>
	Sowthistle	<i>Sonchus asper</i>
	Canadian fleabane	<i>Erigeron canadensis</i>
	Aster	<i>Aster commutatus</i>
	Aster	<i>Aster cichoriaceus</i>
	Aster	<i>Aster leucelene</i>
	Aster	<i>Aster brachyactis</i>
Dominant shrubs from sandy locations within wide canyons :		
	Four-winged saltbush	<i>Atriplex canescens</i>
	Sand sagebrush	<i>Artemisia filifolia</i>
	Sagebrush	<i>Artemisia ludoviciana</i>
	Big rabbitbrush	<i>Chrysothamnus nauseosus</i>
	Twisted-leaf rabbitbrush	<i>Chrysothamnus viscidiflorus</i> var. <i>tortifolius</i>
	Thompson indigo bush	<i>Dalea thompsonae</i>
	Water jacket	<i>Lycium andersoni</i>
Frequent or occasional shrubs from sandy locations :		
	Shadscale	<i>Atriplex confertifolia</i>
	Greasewood	<i>Sarcobatus vermiculatus</i>

## Appendix K

	Tri-lobed sumac	<i>Rhus trilobata</i>
	Fremont indigo bush	<i>Dalea fremontii</i>
	Arrowweed	<i>Pluchea sericea</i>
Grasses :		
	Dropseed, alkali sacaton	<i>Sporobolus airoides</i>
	Sandy dropseed	<i>Sporobolus cryptandrus</i>
	Spike dropseed	<i>Sporobolus contractus</i>
	Needle grass	<i>Stipa comata</i> var. <i>intermedia</i>
	Needle grass	<i>Stipa neomexicana</i>
	Muhlenbergia	<i>Muhlenbergia pungens</i>
	Indian rice grass	<i>Oryzopsis hymenoides</i>
	Longtongue muttongrass	<i>Poa longiligula</i>
	Fendler three-awn grass	<i>Aristida fendleriana</i>
	Side-oats grama grass	<i>Bouteloua curtipendula</i>
Herbs :		
	Dock	<i>Rumex venosus</i>
	Bottlestopper	<i>Eriogonum inflatum</i>
	Wild buckwheat	<i>Eriogonum deflexum</i>
	Wild buckwheat	<i>Eriogonum alatum</i>
	Sand verbena	<i>Abronia salsa</i>
	Sand verbena	<i>Abronia elliptica</i>
	Bugseed	<i>Corispermum marginale</i>
	Fremont goosefoot	<i>Chenopodium fremonti</i>
	Yellow beeflower	<i>Cleome lutea</i>
	Scurf-pea	<i>Psoralea juncea</i>
	Scurf-pea	<i>Psoralea lanceolata</i>
	Prairie clover	<i>Petalostemon candidum</i>
	Loco-weed	<i>Astragalus</i> spp.
	Euphorbia	<i>Euphorbia flagelliformis</i>
	Stick leaf	<i>Mentzelia pumila</i>
	Blazing star	<i>Mentzelia laevicaulis</i>
	White evening primrose	<i>Oenothera pallida</i>
	Evening primrose	<i>Oenothera caespitosa</i> var. <i>marginata</i>
	Evening primrose	<i>Sphaerostigma decorticans</i>
	Evening primrose	<i>Chylismia scapoidea</i>
	Gilia	<i>Gilia congesta</i>

Appendix K

	Gilia	<i>Gilia leptomeria</i>
	Gilia	<i>Gilia aggregata</i>
	Milkweed	<i>Asclepias latifolia</i>
	Milkweed	<i>Asclepias cryptoceras</i>
	Frasera	<i>Frasera utahensis</i>
	Plantain	<i>Plantago purshii</i>
	False toadflax	<i>Comandra pallida</i>
	Euploca	<i>Euploca convolvulacea</i>
	Club flower	<i>Cordylanthus parviflorus</i>
	Gum weed	<i>Grindelia fastigiata</i>
	Matchweed	<i>Gutierrezia microcephala</i>
	Matchweed	<i>Gutierrezia sarothrae</i>
	Golden aster	<i>Chrysopsis villosa</i>
	Townsendia	<i>Townsendia incana</i>
	Aster	<i>Aster cichoriaceus</i>
	Fleabane	<i>Erigeron divergens</i>
	Bur-sage	<i>Franseria acanthicarpa</i>
	Sunflower	<i>Helianthus petiolaris</i>
	Chaenactis	<i>Chaenactis stevioides</i>
	Gaillardia	<i>Gaillardia pinnatifida</i>
	Malacothrix	<i>Malacothrix glabrata</i>
Shrubs in sandy locations :		
	Tall shrubby mint	<i>Poliomintha incana</i>
	Single-leaf ash	<i>Fraxinus anomala</i>
	Utah juniper	<i>Juniperus osteosperma</i>
	Joint-fir	<i>Ephedra viridis</i>
	Joint-fir	<i>Ephedra torreyana</i>

## Appendix L

112

Vegetation in Narrow Side Canyons -		
<b>Little Eden, mile 118.0 :</b>		
Trees :		
	Gambel oak	<i>Quercus gambelii</i>
	Hackberry	<i>Celtis douglasii</i>
	Boxelder	<i>Acer interius</i>
	Fremont cottonwood	<i>Populus fremontii</i>
	Black chokecherry	<i>Prunus melanocarpa</i>
Vines :		
	Western virgin-bower	<i>Clematis ligusticifolia</i>
	Thicket creeper	<i>Parthenocissus vitacea</i>
Shrubs :		
	Trilobed squawbush	<i>Rhus trilobata</i>
	Poison sumac	<i>Rhus toxicodendron</i>
	Wild rose	<i>Rosa nutkana</i>
	False tarragon	<i>Artemisia dracunculoides</i>
Herbs :		
	Western horsetail	<i>Equisetum hyemale</i> var. <i>californicum</i>
	Tall horsetail	<i>Equisetum prealtum</i>
	Canadian wild-rye	<i>Elymus canadensis</i>
	Cheat grass	<i>Bromus tectorum</i>
	False solomon seal	<i>Smilacina stellata</i>
	Stream orchid	<i>Epipactis gigantea</i>
	Vetch	<i>Vicia</i> sp.
<b>Lake Canyon, mile 113.2 :</b>		
	Gambel oak	<i>Quercus gambelii</i>
	Fremont cottonwood	<i>Populus fremontii</i>
	Boxelder	<i>Acer interius</i>
	Hackberry	<i>Celtis douglasii</i>
	Red bud	<i>Cercis occidentalis</i>
	Single-leaf ash	<i>Fraxinus anomala</i>
	Adelia	<i>Forestiera neomexicana</i>



## Appendix L

113

	Liverwort	<i>Riccia frostii</i>
<b>Aztec Canyon, mile 68.6</b>		
<b>Shrubs :</b>		
	Antelope brush	<i>Purshia tridentata</i>
	Cliff rose	<i>Cowania stansburyana</i>
	Apache plume	<i>Fallugia paradoxa</i>
	Fremont barberry	<i>Berberis fremontii</i>
	Mountain maple	<i>Acer glabrum</i>
	Snowberry	<i>Symphoricarpos longiflorus</i>
		<i>Laphamia stansburii</i>
	Rock plant	<i>Petrophytum caespitosum</i>
		<i>Aplopappus scopulorum</i>
<b>Herbs :</b>		
	Rock cress	<i>Arabis</i> spp.
	Fleabane	<i>Erigeron</i> spp.
	Sandwort	<i>Arenaria fendleri</i>
	Eriogonum	<i>Eriogonum aureum</i>
	Stellate bedstraw	<i>Galium stellatum</i>
	Aplopappus	<i>Aplopappus</i> sp.
<b>Lichens :</b>		
		<i>Parmelia conspersa</i>
		<i>Parmelia soledata</i>
		<i>Lecanora muralis</i>
		<i>Lecanora frustulosa</i>
		<i>Lecanora melanapsis</i>
		<i>Lecanora utahensis</i>
		<i>Acarospora strigata</i>
		<i>Acarospora arenacea</i>
		<i>Acarospora chrysops</i>
		<i>Endocarpon wilmsoides</i>
		<i>Biatorella simplex</i>
		<i>Lecidea paupercula</i>
		<i>Lecidea auriculata</i>
		<i>Lecidea cyanea</i>
		<i>Lecidea amylacea</i>

		<i>Lecidea lithophila</i>
		<i>Lecidea vulgata</i>
		<i>Psora decipiens</i>
		<i>Psora crenata</i>
		<i>Psora luridella</i>
		<i>Caloplaca elegans</i>
		<i>Candelariella vitellina</i>

Vegetation of Springs and Seepage Areas -	
Maidenhair fern	<i>Adiantum capillus-veneris</i>
	<i>Adiantum pedatum</i>
	<i>Panicum obtusum</i>
	<i>Panicum virgatum</i>
	<i>Agrostis semiverticillata</i>
	<i>Aquilegia micrantha</i>
Red monkey flower	<i>Mimulus eastwoodiae</i>
Curious primrose	<i>Primula specuicola</i>
Cardinal flower	<i>Lobelia cardinalis</i>
Orchid	<i>Epipactis gigantea</i>
Rush	<i>Juncus longistylus</i>
False solomonseal	<i>Smilacina stellata</i>
Willow-weed	<i>Epilobium adenocaulon</i>
Evening primrose	<i>Oenothera hookeri</i>
Speedwell	<i>Veronica americana</i>
Thistle	<i>Cirsium rydbergii</i>
Sowthistle	<i>Sonchus asper</i>
Common liverwort	<i>Marchantia polymorpha</i>
Liverwort	<i>Riccia frostii</i>
Liverwort	<i>Fossombronina foveolata</i>
	<i>Reboulia hemisphaerica</i>
	<i>Mannia fragrans</i>
	<i>Clevia hyalina</i>
	<i>Targionia hypophylla</i>
Mosses :	
	<i>Eucladium verticillatum</i>
	<i>Gymnostomum aeruginosum</i>
	<i>Gymnostomum recurvirostrum</i>
	<i>Gymnostomum recurvirostrum</i> var. <i>scabrum</i>
	<i>Didymon tophaceus</i>
	<i>Didymon trifarius</i>
	<i>Fissidens grandifrons</i>
	<i>Barbula fallax</i>
	<i>Barbula cruegeri</i>

Appendix M

	<i>Desmatodon obtusifolius</i>
	<i>Pottia heimii</i>
	<i>Tortula mucronifolia</i>
	<i>Funaria hygrometrica</i>
	<i>Funaria microstoma</i>
	<i>Bryum capillare</i>
	<i>Bryum gemmiparum</i>
	<i>Bryum pendulum</i>
	<i>Bryum pseudotriquetrum</i>
	<i>Philonotis marchica</i>
	<i>Amblystegium varium</i>
	<i>Amblystegium americanum</i>
	<i>Hygroamblystegium irriguum</i>
	<i>Hygroamblystegium irriguum marianopolitana</i>