

February 10, 2010

Mr. Daniel Honeyfield, P.E.
Utilities Electrical Engineer
Riverside Public Utilities
3901 Orange Street
Riverside, California 92501

Subject: Results of Focused Burrowing Owl Survey for the Orangecrest-Overlook Feeder
Project Site (LSA Project No. CTR0901)

Dear Mr. Honeyfield:

This letter report prepared for Riverside Public Utilities (RPU) serves to document the results of a focused survey for the western burrowing owl (*Athene cunicularia hypugaea*) conducted by LSA Associates, Inc. (LSA) on a the proposed Orangecrest-Overlook Feeder Project. The proposed project alignment starts at the Orangecrest Substation located at the southeast corner of Trautwein Avenue and John F. Kennedy Boulevard. From the substation, the new cable will be routed through existing underground conduits north along Trautwein Avenue for 6,500 feet and continuing north along Alessandro Boulevard for approximately 5,200 feet to Overlook Parkway. The underground cable will then continue west into a new underground conduit system within the street right-of-way along Overlook Parkway for approximately 1,300 feet. Construction plans include an overhead span of 350 feet over the eastern arroyo located near the end of the pavement at Overlook Parkway, which will then continue west underground through existing structures for approximately 1,000 feet past Via Vista Drive to the second arroyo. At the second arroyo, an additional overhead span of 600 feet will be constructed to clear the second arroyo and then drop underground into existing underground structures located within the Overlook Parkway right-of-way for approximately 300 feet to Crystal View Terrace where the new cable will tie into existing facilities. Two areas of potentially suitable burrowing owl habitat are located within the proposed alignment: approximately 350 feet east of the intersection of Overlook Parkway and Crystal View Terrace and approximately 300 feet east of the intersection of Overlook Parkway and Via Vista Drive, in the City of Riverside (see attached Figure 1). The site is located within portions of Section 7, Township 3 South, Range 4 West, as shown on the U.S. Geological Survey (USGS) *Riverside East, California* 7.5-minute quadrangle.

This report was prepared to document compliance with the western burrowing owl survey requirements of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

No western burrowing owls were detected during the January/February 2010 focused surveys for this species.

BURROWING OWL BACKGROUND

The western burrowing owl is protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) and under Sections 3500, 3503, and 3800 of the California Fish and Game Code (Code). These sections of the Code prohibit take, possession, or destruction of birds, their nests, or eggs. When the western burrowing owl is present, avoidance of take requires that project-related disturbance be avoided during the critical phases of the nesting cycle (typically from March 1 through August 31 in Riverside County).

The western burrowing owl is a small ground-dwelling owl with a round head that lacks the feather tufts on the head typical of other owls. It has white eyebrows, yellow eyes, and long stilt-like legs. The owl is sandy-colored on the head, back, and upper parts of the wings and white-to-cream with barring on the breast and belly. Unlike most owls, the males are slightly larger than the females, and the females are usually darker than the males.

The western burrowing owl is found in western North America from Canada to Mexico and east to Texas and Louisiana. In certain areas of its range, it is migratory (in the northern areas of the Great Plains and Great Basin). Although the western burrowing owl in northern California is thought to migrate, owls within central and southern California are predominantly non-migratory.

Western burrowing owls are found in open, dry grasslands, agricultural and range lands, and desert habitats, which are often associated with burrowing animals. They also inhabit grass, forb, and the shrub stages of pinyon and ponderosa pine habitats. The owl can be found at elevations ranging from 200 feet below sea level to 9,000 feet above mean sea level (amsl). In California, the highest elevation where this species has been found is 5,300 feet amsl in Lassen County. The owl commonly perches on fence posts or on top of mounds outside its burrow. These owls can commonly be found at the margins of airports and golf courses and in vacant urban lots. They are active day and night but usually less active during the peak of day.

Western burrowing owls tend to be opportunistic feeders. Large arthropods, mainly beetles and grasshoppers, comprise a large portion of their diet. Small mammals, especially mice, rats, gophers, and ground squirrels, are also important food items. Other prey animals include reptiles and amphibians, scorpions, young rabbits, bats, and birds, such as sparrows and horned larks (*Eremophila* sp.). Consumption of insects increases during the breeding season. Western burrowing owls are primarily crepuscular (active at dusk and dawn) but will hunt throughout a 24-hour period.

As their name suggests, western burrowing owls nest in burrows in the ground, often in old ground squirrel burrows or badger dens. They can dig their own burrows but prefer deserted excavations of other animals. They are also known to use artificial burrows, such as pipes, concrete debris piles, or rock outcrops.

Western burrowing owl nesting season begins between February and April and lasts until the end of August. The peak of the nesting season is from April 15 through July 15. The owls often line their nests with an assortment of dry materials. Adults usually return to the same burrow or nearby area each year.

One or more "satellite" burrows can usually be found near the nest burrow and are used by adult males during the nesting period and by juvenile owls for a few weeks after they emerge from the nest.

The female will lay five to six (sometimes 3–11) white eggs a day apart, which are incubated for 28 to 30 days by the female. The male brings food to the female during incubation and stands guard near the burrow by day. At 14 days of age, the young may be seen roosting at the entrance to the burrow, waiting for the adults to return with food. The young leave the nest at about 40–45 days of age and begin chasing live insects between 49 and 56 days of age.

METHODS

The western burrowing owl survey was conducted according to the western burrowing owl survey instructions for the MSHCP Area (March 29, 2006). A focused burrow survey was conducted by LSA Senior Biologist Sarah Barrera on November 9, 2009, in order to determine locations of fossorial mammal burrows and/or burrows with burrowing owl sign (e.g., individuals, feathers, pellets, whitewash, and prey remnants) or other non-natural structures with the potential for owls to inhabit (e.g., drainage pipes, concrete refuse piles, debris piles, and detention basins) within the project area.

Focused burrowing owl surveys were conducted by Sarah Barrera on the mornings of January 26 and 28 and the evenings of February 1 and 2, 2010 (Table A).

Table A: Focused Survey Dates and Weather Conditions

Survey	Date	Time (24-Hour) (start/finish)	Temp. (°F) (start/finish)	Wind (mph) (start/finish)	Weather Conditions
Burrow Survey	November 9, 2009	1300/1530	65/65	0–1/0–1	cloud cover 10%
Presence/Absence Survey 1	January 26, 2010	0645/0850	43/50	0–1/2–5	cloud cover 80%
Presence/Absence Survey 2	January 28, 2010	0630/0830	48/52	0–1/0–1	cloud cover 30%
Presence/Absence Survey 3	February 1, 2010	1540/1720	60/56	0–1/0–1	cloud cover 5%
Presence/Absence Survey 4	February 2, 2010	1550/1740	62/57	0–1/0–1	cloud cover 5%

The focused survey provided 100 percent coverage by observing areas with suitable burrows within the project area. Observations were made by walking the study area and with binoculars at point locations adjacent to suitable western burrowing owl habitat. The survey did not include the 150-meter zone of influence transects where that area is under separate ownership, due to the lack of authorization to enter adjacent properties. However, suitable habitat adjacent to the project site was observed through binoculars during the survey.

ENVIRONMENTAL SETTING

The project site borders residential areas and vacant land on all sides. It is bisected by Via Vista Drive and a riparian corridor. The eastern portion of the study area consists of non-native grassland with remnants of Riversidean sage scrub. The western portion of the study area also consists of non-native grassland with remnants of Riversidean sage scrub. Several large boulders have been placed on the

site on the west side, adjacent to Overlook Parkway. Figure 1 shows vegetation, land use, and photograph locations. Figure 1A shows site photographs.

The site elevation ranges between approximately 1,485 to 1,375 feet amsl. The site is generally flat in the eastern portion. The western portion is highest on the east side and slopes toward the east to its lowest point in a riverine/riparian area. Mapped soils on the site are Cieneba sandy loam, Cieneba rocky sandy loam, Fallbrook sandy loam, Hanford coarse sandy loam, and Vista coarse sandy loam (*Soil Survey for Western Riverside Area, California*, A.A. Knecht 1971).

RESULTS

Multiple fossorial mammal burrows were observed throughout the eastern portion of the study area; however, these were too small to support burrowing owls. The large boulders in the western portion of the study area provide potential burrowing owl burrows. No owl sign was found and no owls were observed in either portion of the study area at the time of the January/February 2010 surveys. Since the burrowing owl is a mobile species, it has a potential to subsequently occupy any suitable burrows on site. Therefore, a pre-construction survey will be required within 30 days prior to the beginning of site grading in order to determine whether any owls may have subsequently moved onto the site.

CERTIFICATION

I hereby certify that I have read this report, and that the statements furnished herein and in the attached exhibits present the data and information required for this biological evaluation; and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Please do not hesitate to contact me at (951) 781-9310 or Sarah.Barrera@lsa-assoc.com with any questions or comments you may have.

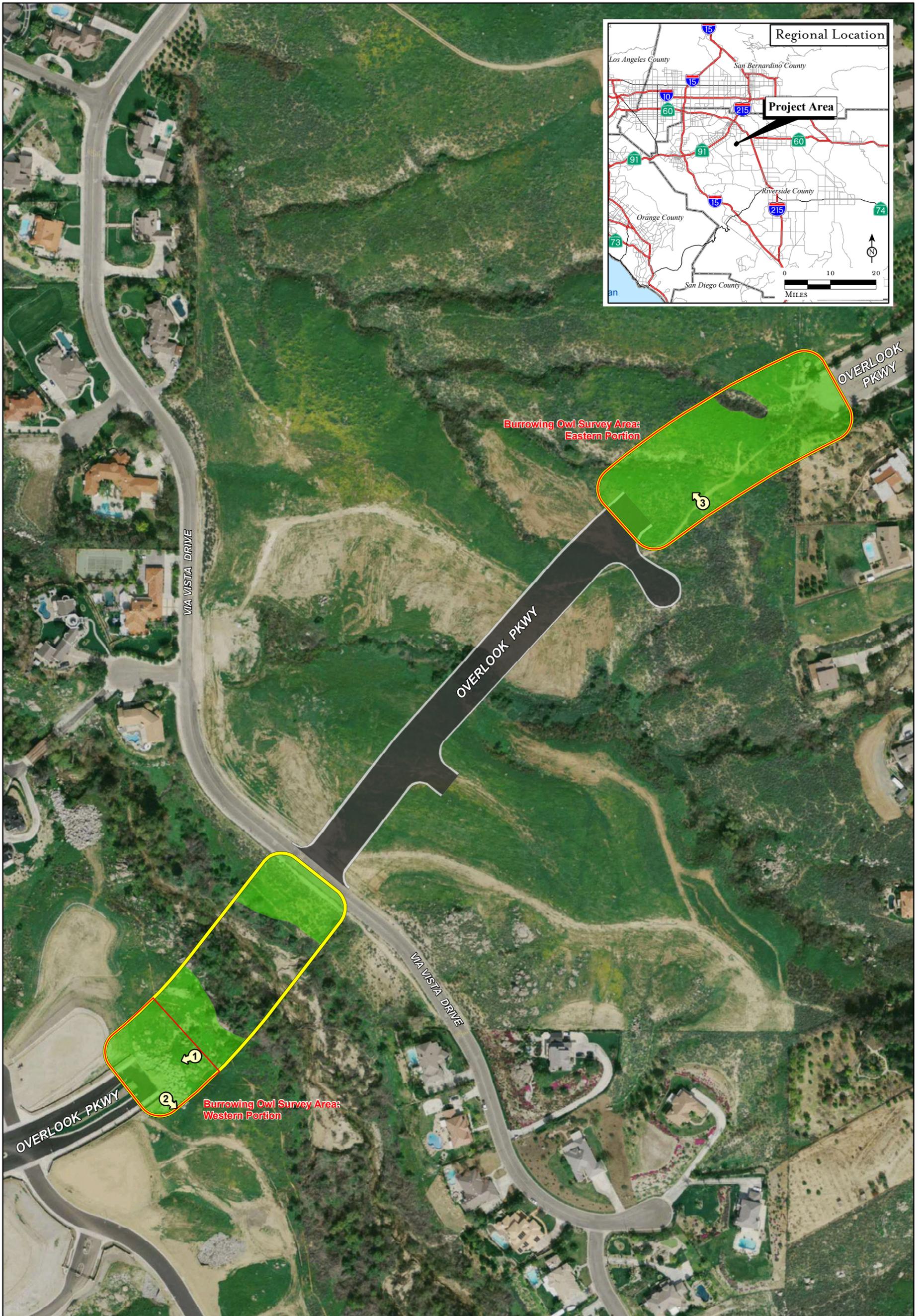
Sincerely,

LSA ASSOCIATES, INC.

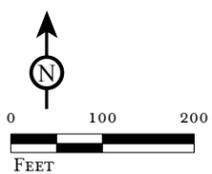


Sarah Barrera
Senior Biologist

Attachments: Figure 1: Burrowing Owl Survey Map
Figure 1A: Site Photographs
List of Plants and Animals Observed



LSA



- Study Area
- Non-Native Grassland
- Burrowing Owl Survey Area
- Photo Location and Direction Taken

FIGURE 1

1533 Feeder Load Relief Project
Burrowing Owl Survey
Burrowing Owl Survey Map

PHOTOGRAPH 1:
View of boulders in the western portion of the burrowing owl survey area with potential to provide burrows.



PHOTOGRAPH 2:
View of suitable burrowing owl habitat adjacent to western portion of burrowing owl survey area, from north to south.



PHOTOGRAPH 3:
View of suitable burrowing owl habitat in the eastern portion of the burrowing owl survey area, from south to north.



LSA

FIGURE 1A

1533 Feeder Load Relief Project
Burrowing Owl Survey
Site Photographs

List of Plant and Animal Species Observed

Scientific Name	Common Name
PLANTS	
MAGNOLIOPHYTA: MAGNOLIOPSIDA	DICOT FLOWERING PLANTS
Asteraceae	Sunflower family
<i>Artemisia californica</i>	California sagebrush
<i>Baccharis salicifolia</i>	Mule fat
<i>Encelia farinosa</i>	Brittlebush
<i>Helianthus annuus</i>	Common sunflower
<i>Heterotheca grandiflora</i>	Telegraph weed
Boraginaceae	Borage family
<i>Amsinckia menziesii</i>	Common fiddleneck
Brassicaceae	Mustard family
<i>Hirschfeldia incana</i> (non-native species)	Shortpod mustard
<i>Cylindropuntia acanthocarpa</i>	Buck-horn cholla
<i>Opuntia ficus-indica</i> (non-native species)	Barbary fig
<i>Opuntia littoralis</i>	Coastal prickly pear
Chenopodiaceae	Saltbush family
<i>Salsola tragus</i> (non-native species)	Russian thistle
Lamiaceae	Mint family
<i>Marrubium vulgare</i> (non-native species)	Horehound
Polygonaceae	Buckwheat family
<i>Eriogonum fasciculatum</i>	California buckwheat
Salicaceae	Willow family
<i>Salix lasiolepis</i>	Arroyo willow
Solanaceae	Nightshade family
<i>Nicotiana glauca</i> (non-native species)	Tree tobacco
MAGNOLIOPHYTA: LILIOPSIDA	MONOCOT FLOWERING PLANTS
<i>Bromus diandrus</i> (non-native species)	Ripgut brome
<i>Bromus madritensis</i> ssp. <i>rubens</i> (non-native species)	Red brome
<i>Schismus barbatus</i> (non-native species)	Common Mediterranean grass
ANIMALS	
AVES	BIRDS
Accipitridae	Kites, Hawks, and Eagles
<i>Buteo lineatus</i>	Red-shouldered hawk
<i>Buteo jamaicensis</i>	Red-tailed hawk
Columbidae	Pigeons and Doves
<i>Zenaida macroura</i>	Mourning dove

List of Plant and Animal Species Observed

Scientific Name	Common Name
Cuculidae	Cuckoos and Roadrunners
<i>Geococcyx californianus</i>	Greater roadrunner
Trochilidae	Hummingbirds
<i>Calypte anna</i>	Anna's hummingbird
<i>Calypte costae</i>	Costa's hummingbird
Picidae	Woodpeckers
<i>Picoides nuttallii</i>	Nuttall's woodpecker
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	Black phoebe
Corvidae	Crows and Ravens
<i>Corvus brachyrhynchos</i>	American crow
Aegithalidae	Bushtits
<i>Psaltriparus minimus</i>	Bushtit
Sylviidae	Old World Warblers and Gnatcatchers
<i>Poliophtila caerulea</i>	Blue-gray gnatcatcher
Mimidae	Mockingbirds and Thrashers
<i>Mimus polyglottos</i>	Northern mockingbird
Parulidae	Wood Warblers
<i>Dendroica coronata</i>	Yellow-rumped warbler
Emberizidae	Emberizines
<i>Pipilo crissalis</i>	California towhee
<i>Melospiza melodia</i>	Song sparrow
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	House finch
MAMMALIA	MAMMALS
Leporidae	Rabbits and Hares
<i>Sylvilagus audubonii</i>	Desert cottontail