

Percentage occurrence of food items found in 81 pellets of the Burrowing Owl:

Arthropoda		Silphidae	
Arachnida	1.2	<i>Necrophorus</i>	31.2
Insecta		Trogidae	
Orthoptera		<i>Trox</i>	1.2
Locustidae	40.8	Staphylinidae	1.2
Hymenoptera		Chordata	
Formicidae	2.4	Aves	
Mutillidae	1.2	<i>Otocoris alpestris</i>	2.4
Hemiptera		<i>Passerculus sandwichensis</i>	1.2
Scutelleridae	1.2	Mammalia	
Lepidoptera	1.2	<i>Sorex obscurus</i>	1.2
Coleoptera		<i>Citellus tridecemlineatus</i>	1.2
Curculionidae	3.6	<i>Thomomys talpoides</i>	2.4
Dermestidae	2.4	<i>Dipodomys ordii</i>	27.6
Tenebrionidae		<i>Perognathus flavus</i>	12.0
<i>Eleodes</i>	3.6	<i>Microtus pennsylvanicus</i>	2.4
<i>Embaphion</i>	1.2	<i>Peromyscus maniculatus</i>	36.0
Unidentified	10.8	<i>Onychomys leucogaster</i>	6.0
Carabidae	1.2	<i>Reithrodontomys megalotis</i>	2.4
Scarabaeidae			
<i>Diplotaxis</i>	15.6		
Unidentified	3.6		

—WILLIAM M. LONGHURST, *Department of Zoology, Cornell University, Ithaca, New York, August 21, 1942.*

American Redstart in Eastern Oregon.—On the morning of August 6, the writer observed a pair of American Redstarts (*Setophaga ruticilla*) feeding fledgling young at La Grande, Union County, Oregon. The family group stayed for an hour in deciduous trees in an area of a quarter of a city block. On two succeeding days they were observed in the same trees, although on the last day the young were foraging for themselves. This is the writer's first record of the Redstart in Eastern Oregon. Gabrielson and Jewett (*Birds of Oregon, 1940:517*) regard the bird as of only casual occurrence in Eastern Oregon. They quote Emerson's published record of a specimen taken at John Day in 1899 (University of California Collection—Mus. Vert. Zool.). The last specimen they record is Jewett's, taken in 1916 at Minam, Wallowa County. Our La Grande record was from Riverside Park on the Grande Ronde River, at 2700 feet elevation.—CHARLES W. QUAINANCE, *Eastern Oregon College of Education, La Grande, Oregon, August 11, 1942.*

An Unusual Concentration of Hummingbirds.—A white-flowered eucalyptus (*Eucalyptus cideroxylon*) in the San Diego Zoological Gardens, San Diego, California, was the scene on August 12 and 13, 1942, of a congregation of approximately one hundred hummingbirds of at least three species. Identifications were made by Laurence M. Huey and Lewis Wayne Walker of the San Diego Natural History Museum and included Black-chinned, Costa and Rufous hummingbirds, and a somewhat larger individual which was probably an Anna and a far more diminutive bird which may possibly have been a Calliope. Evident was a preponderance of Black-chins which outnumbered all other species three to one; next in number were the Rufous and then the Costa of which there were but two definite identifications. By the second morning certain of the hummers had obviously already chosen their territories and attacked all other birds which attempted to enter such areas. The large blossoms which provided the attraction possessed a sweet, viscid nectar, the taste of which was more strong than the typical eucalyptus-oil flavor.—KEN STOTT, JR., *Zoological Gardens, San Diego, California, August 19, 1942.*

Costa Hummingbird at Papago Park, Arizona.—It was with singular interest that I found a male Costa Hummingbird (*Calypte costae*) visiting the Papago Park botanical garden, ten miles from Phoenix, Arizona, on March 4, 1942; prior to this date I had not seen this species there. The feeding preserve which this bird claimed had previously been designated as No. 7 after a male Black-chin (*Archilochus alexandri*) had settled on it the year before. Upon visiting the preserve late in the afternoon of March 4, I found a male Black-chin (apparently the same bird that had

claimed it in 1941) on guard on an electric wire. A few minutes later he left and the male Costa arrived, perching on a twig of a bird-of-paradise shrub.

From March 4 until April 6 I visited the preserve to see if the Costa would settle on the premises of the Black-chin. Not only did he settle there but he drove off the Black-chin, for after March 16 the Costa was in sole possession. Now and then an intruding Black-chin would steal in to feed from the blooming *Aloes*, but would be instantly routed out by the new owner. On March 16 the Costa engaged in aerial display, as though courting. On my next visit, March 28, he displayed even more vigorously, taking successive dives from a height of seventy-five feet. If a female Costa was present, she escaped my observation.

By March 30 the male Costa had acquired five guarding perches—an electric wire, a tall scape of an *Aloe*, a twig of a palo verde, a higher twig on another palo verde, and the tip of an ocotillo—stations from which he maintained continual vigilance of a plot 500 to 1000 square feet in area. Tiring of one perch, he would fly to another, tolerating no intruding hummer save a female Costa that visited to feed from the *Aloes*. There could be no doubt the Costa had taken possession of preserve No. 7.

Of the twelve or thirteen species of hummingbirds frequenting Arizona only the Black-chin is known to breed in this locality (see Swarth, *Birds of the Papago Saguaro National Monument and the Neighboring Region, Arizona*, Dept. Interior, Nat. Park Service, 1920:55). This locality lies within the northern limits of the Costa's breeding range, as listed in standard handbooks on western birds.

The climate here is typical of the Lower Sonoran Zone in which the Costa breeds. The elevation is 1100 feet, and the vegetation is characteristically Lower Sonoran, with the exception of some exotic plants recently introduced, such as the *Aloe* (a South African succulent), tree tobacco (a shrub, *Nicotiana glauca*, which, since its introduction from Argentina, grows wild in the Southwest), a species of *Pentstemon*—all excellent sources of floral food for hummers. All around the botanical garden proper one finds Lower Sonoran herbs, shrubs, cacti, and microphyllous trees, among the most prominent being ocotillo, cholla and saguaro cacti, and mesquite and palo verde trees. This "desert" island is surrounded by patches of citrus groves, farms, and gardens.

Five hundred yards east of the botanical garden proper runs an irrigation canal, along the banks of which tree tobacco abounds. Its long, tubular blooms hold a copious supply of nectar, which doubtless has attracted the male Black-chins that have established preserves along the banks of the canal. I have located as many as six individual preserves along a mile strip. But not once from 1939 to 1942, during which period I have made systematic observations of this locality, have I seen a Costa.

The conditions described are suitable for the life needs of Costa Hummingbirds and there is no reason why they should not establish breeding grounds here. What remains to be seen is the future territorial behavior of the bird that has settled on preserve No. 7. It would be interesting to see if the areas occupied by Costas and Black-chins will become co-extensive as the populations expand. Or, will Costas compete for possession of the grounds at the expense of Black-chins? Not least important in deciding the final outcome of territorial competition is the food supply available for individuals that attempt to settle in this locality.—FRANK BENE, *Bethlehem, Pennsylvania, July 23, 1942.*

A New Fossil Bird Locality.—Dr. Chester Stock of the California Institute of Technology has kindly given me the privilege of examining and recording a fragment of bird bone which was taken during the excavation of a Pleistocene mammal fauna in the Highland Park district of the city of Los Angeles, California.

The specimen consists of the basal two-thirds of a coracoid which is identified as the California Turkey, *Parapavo californicus* (L. Miller). The excavation was made upon a building site at Avenue 45 and Lincoln Avenue, not far from the Occidental College Campus.

Bison, horse, and mammoth were the characteristic mammals removed. The bird bone was recovered from the matrix of the mammoth skull during preparation of the latter. About fourteen feet of silt and clay covered the fossil-bearing stratum and mineralization of the bird bone seems complete. There is no corrosion or sand chafing of the specimen, the only defect being fracture, and the broken surfaces are sharply edged. Entombment must have been fairly prompt.

The general locality has been known to the writer for over thirty years and prior to its artificial drainage, it was more or less marshy terrain. A perennial spring of good drinking water still flows from it. The remains of large mammals in fairly concentrated occurrence is at least suggestive of a boggy ground in which they had been mired in Pleistocene time. Dr. Stock is of the opinion, tentatively held, that the age is fairly late Pleistocene.