

SOME BIRDS OF SEQUOIA NATIONAL PARK

THE ROAD-RUNNER

The Road-runner (*Geococcyx californianus*) is a picturesque bird of the Sequoia National Park. Its long tail, erect crest, brilliant color and great speed are its striking features.

The road-runner is the largest of the Cuckoo family in America. It is a rangy bird with a body length of about 12 inches and a broad graduated tail of about the same length; of a glossy greenish brown color with the ends of the feathers slightly tipped with white; bill about 2 inches long; legs long and strong; feet with two toes forward and two back, thus enabling a tremendous grip, which the birds put to full use when holding reptiles that they capture as food.

Several years ago road-runners were abundant in the lower levels of the park, but they have been gradually killed off outside the park until they are now rare. In this locality, the birds are found principally in the chaparral belt between 800 and 3,500 feet. The principal enemy of this striking bird is man with firearms.

I have observed the road-runner for over 35 years and I find him to possess four marked characteristics; swiftness of foot; inability or lack of extensive flight; gluttonous appetite; peculiar breeding habits.

Undoubtedly the Road-runner is the fastest and most enduring pedestrian of all California birds. I have chased him on horseback, with dogs, and automobile, and have rarely overtaken the bird. I have always wanted to know just what speed the bird could make, but not until August 7, 1918, was I able to make a test case. On that day I was hauling forest fire men from Hospital Rock to Three Rivers in an automobile. We were traveling on the old road at a speed of about 15 miles per hour and down a comparatively straight stretch of road about a quarter of a mile in length with a high wall on one side and a sheer drop on the other. Just as we entered this stretch a large male road-runner darted out from some bushes and headed down the road in front of us. I speeded up the car and ran the bird a distance of over 300 yards before it could leave the road. That bird put forth all his energy. With head lowered and neck stretched forward to full length, wings slightly spread, feet working with the speed of lightning, long tail lowered until its end almost hit the ground, so rapidly and smoothly did the bird skim over the ground as to give it the appearance of a miniature aeroplane. The bird made its fastest run at the end of the race, when he was going a little over 26 miles per hour, as shown by the automobile speedometer.

I never could understand why a bird equipped with as good a pair of wings as the road-runner should remain terrestrial in habits. I have never seen the birds attempt to fly except down hill, and then for short distances only. On several occasions I have chased the birds with a dog and on horseback in an effort to force them to fly up hill, but never with success. I have watched the birds go up trees of 30 feet or so, but the trees were always those with limbs near the ground and the birds would jump around from branch to branch in making the ascent. On leaving the trees the birds would use their wings in gliding to the ground.

Among our North American land birds I know no other that has so gluttonous an appetite or such power of digestion. The Road-runner eats snakes, lizards, centipedes, mice, grasshoppers, snails, many kinds of insects, and always swallows them whole. He also eats small quantities of fruit. I saw a large road-runner at Clough's Cave swallow a garter snake that it had killed and which was about eighteen inches long. The bird swallowed the snake head foremost and it was almost ten minutes before the snakes tail passed from my sight down the birds throat. Again I have seen parent road-runners at Rocky Gulch when feeding their half-grown young, poke lizards head foremost down the young birds' throats so that the fledglings could not completely swallow for over 30 minutes.

The birds are monogamous in their habits, mating in the spring for the entire season. The breeding and nesting habits of the road-runner are in a marked degree different from that of our other North American land birds. Although the birds are largely terrestrial, I never have found them nesting on the ground. Rude nests of sticks and weeds are built with light linings of any fine material available. The eggs number from 4 to 9 and are deposited at intervals of several days, and the one nest answers for the entire season.

On May 18, 1908, while I was stopping at Rocky Gulch station, I found a road-runner's nest on the stone foundation wall of the building with one egg in it. The nest was 7 feet above ground. Eggs were deposited in the nest thereafter as follows: May 31, one egg; June 15, one egg; July 5, one egg; July 18, one egg; Aug. 1, one egg; Aug 12, one egg; Sept. 2, one egg. All eight of the eggs were hatched and the young birds raised to maturity. Egg No. 1 hatched May 21; No. 2, June 18; No. 3, July 3; No. 4, July 22; No. 5, Aug. 5; No. 6, Aug. 19, No. 7, Aug 31; No. 8, Sept. 21. When the young birds first hatched out they were most hideous in appearance. They had an ungainly form, with featherless greasy black skin which resembled the skin on a cricket. The record of deposit of eggs and hatching was kept by detachment of U.S. soldiers on duty at Rocky Gulch.

The outstanding feature in connection with the nesting and rearing of the young road-runners was the fact that one of the parent birds always sat on the nest both by day and by night. The nest was not left unprotected until the second bird had hatched; but from that time on the old birds left to the larger young birds the task of incubating the eggs and hovering the smaller young; except that at nights the mother bird sat on the nest.

Just as fast as the young birds became half-grown the old birds induced them to leave the nest and accompany them on their hunting expeditions, and never were there more than three young birds in the nest at any given time. All the birds returned to the nest at night to roost, when the parent mother would sit on the nest and her mate and the fledglings would sit close beside her. When the young birds began to accompany their parents on their hunting trips it was a trying time indeed for the old birds; for there were young in the nest to feed as well as the young that accompanied them. The latter mentioned, however, being inexperienced in the art of catching food would follow closely behind their parents all the while begging for something to eat; in this they uttered soft whining sounds similar to that of an infant baby; when the older birds would utter sounds of pacification similar to that of a mother hen to her chickens. Owing to these conditions the parent birds were forced to hunt separately for their food. Each morning would see the old cock bird go afield with the mixed brood of youngsters that were able to travel, after which the old hen would quietly slip from the nest and go collecting food for the nestlings.

Up to recent years the Road-runner was hunted and killed because it was believed to destroy the eggs and young of the valley quail. But this accusation was ill founded as has been brought out in a bulletin published at the University of California, October 26, 1916, on the "Habits and Food of the Road-runner in California," by Harold C. Bryant. This bulletin shows that of the eighty-four stomachs of Road-runners collected in 1911 and 1912, that birds only amounted to 1.7 percent of the total food of the road-runners examined, and that the greater part of their food consisted of grasshoppers, crickets, beetles, bugs and worms, and other harmful insects.

Now the California Road-runner is protected under existing law, let us hope that this rare, picturesque, and beneficial species of bird will be preserved to grace our California soil in the many years to come. For every sight of him conjures back to memory the many camp fire stories of the "clown bird", the "chapparal cock," the "rattlesnake killer," and the bird that out-runs the horse.