

The type came to hand thus: The river Frio passes the ranch house, now known as Carrillo, at a distance not greater than five hundred feet. At this location, on the east bank of this turbulent stream, the flood waters have for ages past deposited boulders of all sizes up to four feet in diameter, for a distance of many hundred feet paralleling the stream. Great numbers of young trees grow among this rock litter, and the undergrowth is largely ferns and selaginellas. Hunting through this one rainy morning, I flushed a small bird from or near the ground almost at my feet. It was shot a-wing, thereby adding a genus and a species to the Costa Rican list. All forms comprising the genus appear to be rare. Possibly, semi-crepuscular habit will be found to account in part for this rarity.—AUSTIN SMITH, *San José, Costa Rica, September 6, 1926.*

**Feed-table Observations from Diablo.**—My free lunch table for such of the birds as choose to patronize it, is located adjacent to and immediately in front of one of the windows of my rooms at Diablo. At such times as I sit close to the window I am frequently within two feet of some of the feeding birds, and thus enjoy excellent opportunity for "close-up" observation of peculiarities in habits, character, and appearance presented by the little visitors.

Several years ago when I maintained a feed table in Piedmont, in noticing the conduct and association of a pair of California Brown Towhees that were continuous daily patrons for more than two years, I was led to think that the birds of this species paired for life. Among the frequent visitors to the feed table at Diablo there is also a pair of towhees, and their association summer and winter has tended to strengthen my conclusion as to the probability that the pairing of the towhees was more than a seasonal affair. Of course, the evidence in these two instances is only suggestive, unless it can be corroborated by testimony of other observers.

Of the patrons of the feed table at Diablo the House Finches, or Red-heads as commonly known, are the greatest in number, and their conduct through the pre-nesting and nesting periods afforded no small amount of entertainment. The male birds in many instances exhibited great consideration for their mates. It was not uncommon to see a male bird pause in its feeding to place a delicate morsel of food in the mouth of its mate, which was generally accepted with much bowing, chirping, and quivering of wings. However, in the pre-nesting period, the females at first were a little shy when the males approached them with the food and made some little pretense of avoiding them, as if they misunderstood the purpose of the attention. During the nesting period this habit was more frequently observed, and even as late as the middle of August it was noted in a pair of old birds. With birds so much alike, except as to coloration in sex, it might properly be asked how I was able to distinguish a pair of birds from the flock. In one case it was a simple matter, for the female had a very strange malformation of the upper mandible, and the male bore a white feather in the right wing. These distinguishing features had been noted first in the winter months, and the subsequent daily visits to the feed table by the pair established a familiarity that could hardly be questioned.

House Finches, like Blackbirds, Quail, Purple Finches, Bush-tits and many other species, after the nesting season gather in flocks and in such relation seek their daily food and roosting places, until the nesting time approaches again, when the flocks are broken up by the birds going off in pairs. Now the question arises as to what extent, if any, do the pairing and nesting relations of the former season or seasons figure in the breaking up of the flocks. Who knows? It would not be surprising if the pairing for life was more common than thought to be. The actions of the pair of birds described above together with the conduct of others of the flock suggested the possibility if not the probability of this. Facts more substantial and reliable in solving the problem might be obtained by trapping and banding a few pairs with distinguishing bands, keeping them under observation for two or three seasons.

Referring to the matter of the female House Finch with the malformation in her mandible, so far I have been unable to determine the exact character of the distortion. Both parts of the bill seem to be growing longitudinally, and are now extended to double the length of those ordinarily seen. The upper mandible is either shorter or so formed that the bird is unable to pick up seed in the manner common to her kind, and therefore is compelled to turn her head sidewise to the ground and pick up the seed

with the "corner of her mouth". Although forced to secure her food by this abnormal method, she does not appear to be at any disadvantage in obtaining her share of seed placed on the feed table.

It seems rather remarkable that a bird, when its bill becomes unfitted to pick up its food in the manner common to its kind, should be able to invent a method of securing its food so at variance with the way taught it by instinct. Instead of starving to death it succeeded in adapting itself to the requirements of the situation.

For the attention of those interested in the migration of birds, I will state that the first Golden-crowned Sparrow to return from the far north to Diablo, appeared at my feed table September 19. This is four days earlier than last year.—FRANK A. LEACH, *Diablo, California, September 20, 1926.*

**Shrike Attacking Snake.**—The Raptores and perhaps some other birds, the Road-runner for example, are known to eat snakes. I had never ascribed this habit (if it in fact be a habit) to Shrikes. It was somewhat of a surprise to actually see a Shrike assailing a snake, about fifteen inches long, at the edge of a road about a mile southwest of Terra Bella, Tulare County, California, on October 15, 1925.

I assume this Shrike was of the race *Lanius ludovicianus excubitorides*, but a Shrike it certainly was. I was driving northwardly in an automobile. The wheel of this car is on the left side. I was driving rather slowly (as I always do) and noticed a bird ahead of me springing about in the most energetic manner at the left edge of the road. When I was less than a car-length away, the bird flushed and I pulled off to the right in order to examine the spot from which the bird had risen, after first watching the bird in flight so as to be sure of its identification. The bird flew off a few yards and came to rest in a small tree. I had a very good look at it and know it was a Shrike.

I then investigated the place at the side of the road, where I found a small snake writhing about in extremis. Two inches from the head, on the under part, was a small, fresh, irregular and bleeding incision. No other injury was visible, but the snake seemed clearly done for. It was unable to crawl off the road, although I urged it with a weed stalk. There seems no doubt but that I had disturbed a Shrike while it was securing a meal, or a supply for several meals, although the performance had not reached its denouement.—CLAUDE GIGNOUX, *73 The Tunnel Road, Berkeley, California, November 22, 1926.*

**A New Race of Sclater Oriole.**<sup>1</sup>—The following comments serve as a synopsis of the conclusions reached in identifying a series of *Icterus sclateri* Cassin, recently collected by the writer in Salvador, for Mr. Donald R. Dickey.

Seasonal and individual variation are the factors governing the amount of black present in the backs of adults. Individual variation is by far the more important. There appears to be no correlation between altitude and the relative amounts of black and yellow present, for the extremes were encountered practically wherever the species occurred. Indeed, the only bird with back practically solid black is a breeding male from Lake Olomega at an altitude of 200 feet, while the yellowest backed extreme is also from the same locality. Nor are birds from San Salvador (altitude 2100 feet) in any respect different from the lowland individuals. Seasonal variation results from the wearing away of the yellowish tips and edgings to the feathers, thereby increasing the relative amount of black present. No association of size with altitude is apparent. The two largest males (wing 111.5-112.5 mm.) are from Divisadero, altitude 800 feet; and males with wings varying from 105.0 to 109.0 are at hand from Lake Olomega and San Salvador. The two large males from Divisadero are of average coloration, in other words with a considerable amount of yellow streaking in the back. The very smallest male examined is from "Guatemala" (wing 101.0) and has only a trace of yellow in the back. It is without date, but in fresh plumage, and its back with a slight amount of abrasion would have become practically solid black. From the above it is evident that birds with black backs and of large size are not confined to altitudes above 2000 feet; that small birds with spotted backs are not confined to the lowlands, nor do black backs go with large size and spotted backs with small size, as was indicated by the material examined by Miller and Griscom when they described *Icterus sclateri alticola*. (See Amer. Museum Novitates, no. 184, September 24, 1925, p. 4.)

<sup>1</sup> Contribution from the California Institute of Technology.