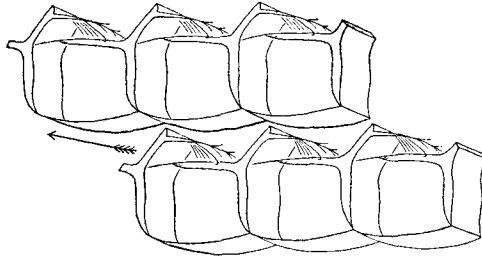


Falco columbarius bendirei taken by Dr. Louis Watson at Ellis, Ellis County, Kansas, in October or November, 1875. It was sent with several others to Dr. Snow, who classified all of them as *F. c. richardsoni*. This is the only reported occurrence of the Western Pigeon Hawk in Kansas, although the bird probably occurs as an occasional migrant and winter resident in the western part of the state.

I am greatly indebted to Mr. James L. Peters, of the Museum of Comparative Zoology, who has checked the identification of these specimens.—W. S. LONG, *Museum of Birds and Mammals, Lawrence, Kansas.*

Feather Structure of the Ruffed Grouse.—The origin of the odd drumming note delivered by the Ruffed Grouse (*Bonasa umbellus umbellus*) has long been a subject of conjecture among naturalists. Several well known theories have been advanced from time to time to account for this bird's somewhat unique call but a study of the feather structure seems to have been overlooked as a means of throwing further light on this subject. It also appears that the sometimes startling whir which the Grouse is capable of when arising, has not been considered in connection with its drumming note but a close study of the flight feathers would indicate that both may have one and the same source.

When the subject is considered from this point of view it seems that in producing the required vibrations of its flight feathers the bird must be



capable of directing them in the desired direction and in drumming this requires such concentration as to make the Grouse oblivious of even his immediate surroundings. To whir upon arising the feathers are probably directed in much the same manner but the stroke of the wings is, of course, considerably retarded due to the resistance offered by the air and the shuffling which the feathers undergo is lessened.

This does not imply that the individual quills are moved independently but rather, perhaps, that the bird holds them more rigidly than is its usual wont so that in passing the surfaces impinge with sufficient force to cause vibration of the ventral ridge of the ramus.

An examination of the primaries would indicate a depression of the shaft resulting in what might be termed a flattened feather, or in other

words, whereas in most quills the shaft forms a ventral prominence in this instance the shaft is even with the vanes resulting in a comparatively smooth structure.

This modified condition is essential, of course, for the surfaces of the feathers could not be contacted closely otherwise. Thus the minute ridges noted at the top of the feather apparently strike glancing blows on the membranous ventral surfaces of the preceding feather much, in fact, after the manner in which cymbals are struck together.

The exact manner in which the bird drums is not readily perceived, in fact it possibly requires much skill and is, no doubt, an accomplishment necessitating precise control.—IRVING L. TOWERS, *Contee Road, Laurel, Md.*

The Martinique Form of the Ground Dove.—Probably no more conscientious or painstaking revisionary work has ever been published than Mr. W. E. Clyde Todd's 'Revision of the genus *Chaemepelia*' which appeared in the 'Annals of the Carnegie Museum,' 8, 1913, p. 507-603. This arrangement was adopted practically *in toto* by Ridgway in the seventh part of his 'Birds of North and Middle America,' nor has anyone since differed with Todd's conclusions except in very minor details. A few forms have been described based on material collected after Todd's work was published, but this is only to be expected.

This note deals with a slight rearrangement of some of the Antillean races of *Columbigallina passerina*, found necessary through the receipt of fresh material from a critical locality.

When Todd applied Bonaparte's *Chamaepelia trochila*, which was based on Martinique specimens, to the race occurring in Puerto Rico, Virgin Islands, and the main chain of the Lesser Antilles south to and including St. Lucia, he had but three topotypical birds available, none of them males. Reasoning by analogy from the characters presented by birds from Dominica, the next island north of Martinique, and from St. Lucia the next island south, he concluded that it was safe to apply *trochila* to the "northern form."

When I was on Martinique in 1925 I collected three adult males, three adult females and a juvenal Ground Dove near the village of Sainte Anne in the arid south part of the island. Comparing these birds with a good series from Puerto Rico to Guadeloupe, and from St. Lucia to Grenada, I find that the Martinique birds stand out so distinctly that *trochila* should be restricted to birds from that island. I can see no way in which the Ground Dove population from Puerto Rico to Dominica can be subdivided and would therefore recognize birds from all these islands by the name of *Columbigallina passerina portoricensis* (Lowe), assigning the same characters given by Todd for *trochila* as understood by him.

The Martinique bird is abruptly larger than *portoricensis*; has the rufous area in the wings reduced, the markings on the squamated areas more pronounced; in addition the males are less extensively vinaceous on the wing coverts and the forehead and sides of head are paler vinaceous.