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NOTES ON PANAMANIAN BIRDS

BY JOHN W. ALDRICH

WHEN E. A. Goldman visited eastern Panama to collect birds and mammals for the U. S. Biological Survey in 1911 and 1912, that part of Central America was still virtually unexplored ornithologically. The explorations of the Italian naturalist, Festa, in the Rio Tuyra Valley, in 1895, seem to have been the only previous work. After Goldman brought back his fine collection from Porto Bello, Cerro Azul, Chepo, Rio Tuyra Valley, Mt. Pirri, and Cana, the late E. W. Nelson began its study and described many interesting new forms from it. Unfortunately, he was never able to complete his study and no comprehensive report was ever written on the birds, although some information about them was included incidentally in the report on the mammals of Panama by Goldman (1920: 25-42). Since that time several other collectors have worked in eastern Panama, and the region has become much better known. Nevertheless, there seem to be a few things left in the Goldman collection that have escaped more recent investigators.

In his lists of species characteristic of the Arid Lower Tropical Life Zone of Panama, Goldman (1920: 35) included '*Ammodramus savannarum obscurus*,' which was then the name used for the grasshopper sparrows breeding in southern Mexico. This publication, as well as the specimens on which it was based, have apparently been overlooked by subsequent investigators of the Panamanian avifauna, since there is no mention of the species as occurring in that country by either Hellmayr (1938: 495-501), or Griscom (1935). The three specimens of grasshopper sparrow, on which Goldman's (1920: 35) citation was based, were taken by him near Chepo, at the eastern end of the Pacific coastal savannas in eastern Panama. These include an immature male and a non-sexed adult specimen collected on the Rio Pacora, ten miles west of Chepo, altitude 100 feet, March 28, 1911; also an adult female taken ten miles northwest of Chepo, March 20, 1911. The immature male is interesting in that it is in process of molt from the juvenal plumage to the adult dress. Much of the head and back

plumage of the adult has already been attained, as well as about half of the buff and white ventral covering. Juvenal plumage remaining on the under parts shows the characteristic black streaking of the young of this species, but a much more yellowish ground color than in juvenile specimens of North American races, of which all that I have seen are practically white. To what extent this yellowish coloration is characteristic of continental tropical American grasshopper sparrows is not demonstrated by my material, which is otherwise totally lacking in specimens in juvenal dress. It does seem to be the rule in West Indian races, however. The presence of this practically juvenile example among the specimens from eastern Panama almost certainly proves that the birds were on or near their breeding grounds. Apparently they breed there during the dry season, which in that country extends from December to May. The two adult specimens are in fresh plumage, apparently having recently completed the post-nuptial molt. They are slightly lighter and more heavily marked with chestnut above than a series of breeding specimens from Minatitlan, Vera Cruz, and Palenque, Chiapas. The latter, on the basis of van Rossem's (1934: 359) examination of the type specimen of *bimaculatus*, are considered typical of that race. With the small series at hand, however, it is impossible to say to what extent these differences are due to inequalities in amount of plumage wear. The Panamanian birds are certainly in fresher plumage than any of the Mexican examples of *bimaculatus* that I have been able to find. Compared with *A. s. cauciae*, of northern Colombia, the Panamanian specimens are smaller, darker, and more brownish.

It is of interest to note that Carriker (1910: 910) refers grasshopper sparrows from northwestern Costa Rica to '*obscurus*' [= *bimaculatus*], and that three autumn specimens in the U. S. National Museum collected by A. Wetmore on the south slopes of the Volcan Rincon de la Vieja, Province of Guanacaste, northwestern Costa Rica, have also been identified as this race (Wetmore, 1944: 79). Thus it appears that *bimaculatus* ranges from southern Vera Cruz southward along the Pacific coastal savannas of Central America to eastern Panama.

Another species which seems to have eluded all collectors in Panama, except Goldman, is the sharp-tailed creeper (*Lochmias nematura*). Griscom (1935: 338) includes this species in his check-list of the birds of Panama, with the statement: "Mt. Pirri, Darien (fide Chapman)." Apparently Chapman had seen or heard about the specimens in the Biological Survey collection, since, as far as I am aware, they are the only ones that have ever been taken in that region. They are three

adult males taken at Mt. Pirri, eastern Panama, April 27, 1912, 4,500 feet, near the head of Rio Limon; May 1, at the same locality; and June 7, at 5,000 feet.

The late E. W. Nelson apparently had suspected that these specimens belonged to an undescribed race and had been investigating them, because after his death they were found set aside together with comparative material from South America, borrowed from the American Museum of Natural History. A careful comparison of this material shows that the Panamanian birds do represent a distinct subspecies which I am pleased to name after Dr. Nelson:

***Lochmias nematura nelsoni*, new subspecies**

PANAMA SHARP-TAILED CREEPER

Type—Adult ♂, No. 238033, U. S. National Museum (Biological Survey Collection); Mt. Pirri, 4500 feet, near the head of Rio Limon, eastern Panama; May 1, 1912; E. A. Goldman; original number, 15635.

Subspecific characters.—Similar to *Lochmias nematura sororia*, of the northern Andes, but smaller and above more dusky, less rufescent (Prout's brown, instead of chestnut); below, brown areas more grayish and white spots reduced in size. Similar also to *Lochmias nematura obscurata*, from the Andes of Peru, but lighter and more rufescent, with ventral white spots much larger and more numerous.

Measurements.—Adult male (three specimens from Mt. Pirri, Panama): wing, 67.5–70.0 (68.3) mm.; tail, 40.5–45.0 (43.3); exposed culmen, 20.0–21.5 (20.7); tarsus, 22.5–23.0 (22.7); middle toe without claw, 19.0–21.0 (19.8). For comparison, a male from Cauca, Colombia, measures: wing, 74.5; tail, 49.0; exposed culmen, 21.0; tarsus, 25.0; middle toe without claw, 21.0. Two females from the same region of Colombia measure: wing, 70.0–74.0; tail, 45.5–48.5; exposed culmen, 19.5–20.0; tarsus, 23.0; middle toe without claw, 20.5–22.0.

Range—At present known only from the Upper Tropical Zone of Mt. Pirri, in the western part of the Province of Panama, Republic of Panama.

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NOTES ON PEARL ISLANDS ORNITHOLOGY

BY ROBERT CUSHMAN MURPHY

DURING my expedition in the schooner 'Askoy,' under the auspices of the American Museum of Natural History, thirteen stations, chiefly marine, were worked in the vicinity of the Pearl Islands, Gulf of Panama. The dates were February 9-15 and May 23-26, 1941. A general statement on the expedition has appeared in *Science* (94 (no. 2429): 57-58, 1941) and other reports have been published, are in press, or are in preparation.

The birds collected by Mr. Jose G. Correia and the writer were mostly sea fowl, which are being studied in connection with specimens obtained elsewhere on the expedition. In addition, forty-seven examples of land and shore birds, which are the subject of this note, were collected at four islands of the archipelago, namely, Pacheca (at the northern end), Saboga, La Vivienda (an outlier of Bayoneta), and El Rey or San Miguel (the main island). Our San Miguel specimens were all taken in the Santelmo Bay district, at the south end of the island.

The principal sources of ornithological information about the Pearl Islands are the reports of Thayer and Bangs (*Bull. Mus. Comp. Zoöl.*, 46: 137-160, 1905), and of Rendahl [*Arkiv för Zoologi*, 13 (no. 4): 1-56, 1920]. The latter author lists all the birds, resident and visitant, known up to his date of publication, a total of 100 species. The list has since been slightly increased by scattered records, all but a