American Museum Novitates

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY CENTRAL PARK WEST AT 79TH STREET, NEW YORK 24, N.Y.

NUMBER 1891

MARCH 26, 1958

A New Race of the Blue-headed Fantail (Rhipidura cyaniceps) from Northern Luzon, Philippine Islands

By Kenneth C. Parkes¹

In connection with studies based on a collection of birds made in Luzon, Philippine Islands, in August and September, 1956, it has proved desirable to present certain preliminary taxonomic findings prior to the appearance of the principal report upon the collection. The specimens, now in Carnegie Museum, were taken during the course of an expedition of the Graduate School of Public Health, University of Pittsburgh, under the sponsorship of the Commission on Viral Infections, Armed Forces Epidemiological Board, and supported in part by the Office of the Surgeon General, United States Department of the Army. Specimens were borrowed for the present study through the courtesy of the authorities of the American Museum of Natural History, United States National Museum, Chicago Natural History Museum, Yale Peabody Museum, Cornell University, and the National Museum of the Philippines. Preliminary work on this paper was begun at the latter institution, where I received much valuable assistance and advice from Dr. Canuto G. Manuel, Chief Zoologist. Additional specimens were examined at the University of Michigan Museum of Zoology and at the University of Minnesota Museum of Natural History.

Gilliard (1950, p. 473) listed 14 species of birds which demonstrate geographic variation on Luzon, the largest island in the Philippine

¹ Carnegie Museum, Pittsburgh, Pennsylvania.

archipelago. Although several of the races he listed are hardly worthy of nomenclatorial recognition, nevertheless the pattern of geographic variation shown is unquestionably a real phenomenon. Gilliard omitted some species in which races from northern Luzon are often recognized (*Parus elegans, Nectarinia jugularis*); an additional case of this sort is described below, and such geographic variation on Luzon will undoubtedly be demonstrated in other species as sufficient material is assembled.

Three races of the Blue-headed Fantail (Rhipidura cyaniceps) are currently recognized: the nominate form from Luzon, sauli from Tablas, and albiventris from Ticao, Masbate, Panay, Guimaras, and Negros. Both of the last two were originally named as full species and are discussed briefly below. On Luzon, Rhipidura cyaniceps demonstrates distinct clines in both size and color. Size increases from north to south; the mountain birds of the north are smallest, and the increase in size occurs fairly abruptly in the provinces just north of Manila (Bataan, Pampanga, Tarlac, Rizal). The color cline is more gradual; birds from these central provinces are intermediate in color between the mountain birds and those from south of Manila.

The type locality of Muscipeta cyaniceps Cassin is merely "Philippines" and has been further restricted to Luzon simply because Luzon is the only island from which this form is known. As the geographic variation within Luzon is so pronounced that recognition of two subspecies seems warranted, it becomes necessary to determine a more precise type locality for the nominate race. Fortunately the type of Muscipeta cyaniceps (U.S.N.M. No. 15753) is still in existence, and is in remarkably good condition for a specimen over a century old, taken down from a mount. It is unquestionably an example of the deeply pigmented population found south of Manila, but not so dark as extreme examples from Sorsogon. The type is a good match for specimens from Mt. Makiling (formerly spelled "Maquiling"), Laguna Province, which I therefore designate as the restricted type locality of Muscipeta cyaniceps Cassin. This parallels the action of Gilliard (1949, p. 279) with respect to the type locality of Mulleripicus funebris.

This leaves the pale northern bird to be named. It may be known as follows.

Rhipidura cyaniceps pinicola, new subspecies

TYPE: A.M.N.H. No. 651785; adult male; Mt. Benguet (6000 feet), northern Luzon, Philippine Islands; collected January 30, 1894, by J. Whitehead.

Description: Similar to R. c. cyaniceps (Cassin), but decidely paler in color and averaging smaller in size. The blue of head, lesser wing-coverts, and breast is duller and grayer, with little tendency towards the lighter blue shaft streaks which are conspicuous in cyaniceps, particularly on the forehead. The buff of the abdomen is paler and blends with the gray-blue of the breast where the two colors meet, whereas in cyaniceps the breast and abdomen contrast sharply. The brown of the back, outer rectrices, and inner remiges is paler, more yellowish, less chestnut. The central rectrices are less intensely black.

RANGE: Highlands of northern Luzon. The name selected for this subspecies reflects its status as a typical inhabitant of the *Pinus insularis* forest (Amadon and Jewett, 1946, p. 548). Although probably not confined exclusively to pine forest, the known distribution of typical R. c. pinicola closely matches the distribution of this forest type in northern Luzon as shown by McGregor's map (1920, pl. 1). Specimens from the provinces of Bataan, Pampanga, Tarlac, and Rizal are intermediate in color but are large as is cyaniceps. A specimen in the collection of Cornell University (No. 15065) bears an original label in McGregor's handwriting ascribing the bird to "Polillo Island, P. I."; neither date nor sex is given. There is no possibility of a switch in labels, because the name Rhipidura cyaniceps, also in McGregor's handwriting, accompanies the locality data. McGregor did not list this species in his paper on the birds of Polillo (McGregor, 1910), and Dr. Manuel informs me that his recent expeditions to that island did not encounter Rhipidura cyaniceps. Most of the avifauna of Polillo is quite similar to that of central Luzon, so the species may yet be found there. However, all the evidence presently available suggests that the Cornell specimen is erroneously attributed to Polillo. It appears to be a fairly typical example of pinicola.

REMARKS ON OTHER RACES

The descriptions of R. c. sauli Bourns and Worcester as given in the literature do not match the 18 specimens examined. The entire series is very old, and I strongly suspect a quite radical post-mortem color change. The abdomens of these specimens are not "deep chest-nut" (Bourns and Worcester, 1894, p. 27; Delacour and Mayr, 1946, p. 205) and are, in fact, paler than those of true cyaniceps of southern Luzon. At present, the abdomens of these sauli specimens are a pinker, less yellow, shade of buff than those of pinicola. Although also possibly due to fading, the color of the breast of sauli is even paler and grayer than that of pinicola, with prominent whitish (not blue as in

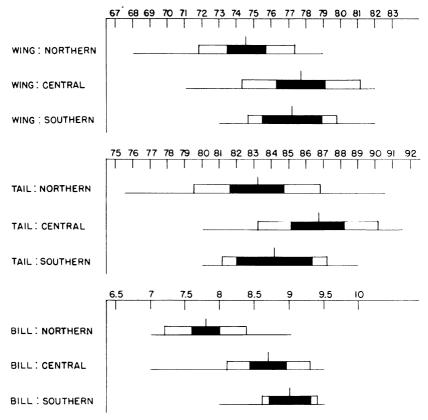


Fig. 1. Graphic representation of measurements of Rhipidura cyaniceps. The three samples, "northern," "central," and "southern," correspond with R. c. pinicola, an intergrade population, and R. c. cyaniceps, respectively. Males of this species average definitely larger than females, but the sexing was unreliable on so many specimens that the measurements of the sexes had to be combined. As the sex ratio varied from sample to sample, the combined measurements can be used only as an indication of trends of variation within the species. The sample of R. c. cyaniceps was also rather small, again reducing the reliability of comparisons. The horizontal lines represent the observed ranges of three measurements (in millimeters). The short vertical line indicates the mean of the sample. The open rectangle extends one standard deviation on each side of the mean, and the solid rectangle extends two standard errors on each side of the mean. Overlap of the solid rectangles by no more than 33 per cent indicates a statistically significant difference between the two samples. Non-overlap of the open rectangles indicates at least 84 per cent separability of the samples being compared, a difference usually considered to be of subspecific magnitude. The northern and southern populations would be subspecifically separable on bill size on this basis.

cyaniceps) shaft streaks. The larger size of sauli is distinctive. I know of no recently collected specimens of sauli which could be used to verify the hypothesized color change; the 18 original Bourns and Worcester specimens may well be the only skins of sauli in existence.

In a description of *pinicola*, no detailed comparison is necessary with the distinctive *R. c. albiventris* (Sharpe), in which the abdomen is white. Within this form, two Ticao specimens in the American Museum of Natural History appear smaller and grayer below than those from other islands, and may prove separable if sufficient material could be assembled.

SPECIMENS EXAMINED

R. c. cyaniceps: "Philippines," 1 (type of species); "Laguna de Bai," 1; Mt. Makiling, Laguna, 3; Tayabas Province (unspecified), 1; Jagusara Juban, Sorsogon, 2; Sorsogon Province (unspecified), 1.

R. c. cyaniceps × pinicola intergrades: Four miles north of Clark Air Force Base, Tarlac, 2; Sacobia River valley 1 mile west of Clark Air Force Base, Pampanga, 1; Lamao, Bataan, 18; Mt. Cayapo, Bataan, 3; Sampaloc, Tanay, Rizal, 1.

R. c. pinicola: Massisiat, Abra, 5; Bontoc, Bontoc, 2; Mt. Nangaoto, Benguet, 7; Mt. Singakalsa, Benguet, 1; Mt. Pauai, Benguet, 4; Mt. Benguet, Benguet, 3; Haight's Place, Benguet, 1; La Trinidad, Benguet, 1; Baguio, Benguet, 2; "Polillo Island" [= error], 1.

R. c. sauli: Badajoz, Tablas, 18.

R. c. albiventris: Series in the American Museum of Natural History and National Museum of the Philippines; type in University of Michigan Museum of Zoology.

REFERENCES

AMADON, DEAN, AND STANLEY G. JEWETT, JR.

1946. Notes on Philippine birds. Auk, vol. 63, pp. 541-559.

BOURNS, FRANK S., AND DEAN C. WORCESTER

1894. Preliminary notes on the birds and mammals collected by the Menage Scientific Expedition to the Philippine Islands. Occas. Papers Minnesota Acad. Nat. Sci., vol. 1, no. 1, pp. 1-64.

DELACOUR, JEAN, AND ERNST MAYR

1946. Birds of the Philippines. New York, xv + 309 pp.

GILLIARD, E. THOMAS

1949. Five new birds from the Philippines. Auk, vol. 66, pp. 275-280.

1950. Notes on a collection of birds from Bataan, Luzon, Philippine Islands. Bull. Amer. Mus. Nat. Hist., vol. 94, pp. 457-504.

McGregor, Richard C.

1910. Birds collected in the island of Polillo, Philippine Islands. Philippine Jour. Sci., vol. 5, sect. D, pp. 103-114.

1920. Some features of the Philippine ornis, with notes on the vegetation in relation to the avifauna. *Ibid.*, vol. 16, pp. 361-437.