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BIRDS COLLECTED DURING THE WHITNEY SOUTH SEA EXPEDITION. XLII¹

ON THE BIRDS OF THE LOYALTY ISLANDS²

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After the completion of the exploration of the southern New Hebrides, Mr. L. Macmillan went to the Loyalty Islands and made a thorough survey of all three islands: Uvea, Lifu, and Mare. Again he succeeded in obtaining nearly every known bird of the islands and again he added a great deal to our knowledge of the birds of these islands. The present paper is only of a preliminary nature, a more detailed report, including the field-notes, is planned for the future. We owe most of our knowledge of the Loyalty Islands to the Layards, who published in 1878-1882 a series of papers on the birds of New Caledonia and the Lovalty Islands. Unfortunately, they never gave a complete list of the birds of the Loyalty Islands and it is, therefore, difficult to ascertain how many of Mr. Macmillan's discoveries are actually new. The only list of the birds of the Loyalty Islands is that of F. Sarasin, published in Nova Caledonia, Zool., 1 (1913), pp. 71-73.

To judge by this list, Mr. Macmillan made the following new records on the three islands:

UVEA.—Demigretta sacra, Anas superciliosa pelewensis, Accipiter fasciatus vigilax, Porphyrio porphyrio caledonicus, Ptilinopus greyi, Trichoglossus haematodus deplanchii, Chalcites lucidus layardi, Collocalia spodiopygia leucopygia, Hirundo tahitica subfusca, and Pachycephala pectoralis littayei.

LIFU.—Circus approximans wolfi.

MARE.—Demigretta sacra, Accipiter fasciatus vigilax, Rallus philippensis swindellsi. Cacomantis pyrrhophanus pyrrhophanus, Chalcites lucidus layardi, Collocalia esculenta uropygialis, Rhipidura spilodera verreauxi, and Zosterops xanthochroa.

As said above, some of these may have already been recorded by the Lavards. Macmillan also obtained a number of sea birds (including Fregata ariel and minor) and migrating shore birds, which will be reported upon at another place.

The Loyalty Islands show a number of peculiar features, in spite of their proximity to New Caledonia. Of typically New Caledonian elements, we find only the genera Eunymphicus and Philemon. All the others have a wider distribution in southern Melanesia. On the other hand, there are quite a number of forms which indicate a greater relationship of the Lovalty Islands with the New Hebrides than with New Caledonia. Such species are: Lalage leucopyga, Turdus poliocephalus, Pachycephala pectoralis, Myzomela cardinalis, Zosterops minuta, and Erythrura trichroa.

The endemisms of the Loyalty Islands are the following:

Eunymphicus cornutus uvaeensis (Uvea)

Halcyon sancta macmillani (Uvea, Lifu, Mare)

Coracina caledonica lifuensis (Lifu)

Turdus poliocephalus mareensis (Mare)

Turdus poliocephalus pritzbueri (Lifu and ? Tanna)

- Gerygone flavolateralis lifuensis (Uvea, Lifu)
- Myiagra caledonica viridinitens (Uvea, Lifu)
- Pachycephala pectoralis littayei (Uvea, Lifu)

Aplonis striata atronitens (Uvea, Lifu, Mare)

Myzomela cardinalis lifuensis (Uvea, Lifu, Mare) Zosterops inornata (Lifu)

Zosterops lateralis nigrescens (Uvea, Mare)

Zosterops lateralis melanops (Lifu)

Zosterops minuta (Lifu)

F. Sarasin (op. cit.), who made a detailed study of the geographical variation of

¹ Previous papers in this series comprise American Museum Novitates, Nos. 115, 124, 149, 322, 337, 350, 356, 364, 365, 370, 419, 469, 486, 488, 489, 502, 504, 516, 520, 522, 531, 590, 609, 628, 651, 665, 666, 709, 714, 820, 828, 912, 915, 933, 939, 947, 977, 986, 1006, 1007, and 1056. ² Submitted to the Editor on Feb. 1, 1939.

Loyalty Islands' birds, described no less than nine new forms from the islands. He had, unfortunately, inadequate material, and a study of Mr. Macmillan's collections has convinced me that only three of these forms are valid (indicated with an asterisk).

Columba hypoenochroa uveaensis (op. cit., p. 53) [= hypoenochroa]

*Diaphoropterus naevius simillimus (op. cit., p. 28)

Merula mareensis larochensis (op. cit., p. 42) [= mareensis]

*Pseudogerygone flavilateralis lifuensis (op. cit., p. 21)

Pseudogerygone rouxi (op. cit., p. 22) [= lifuensis]

Myiagra caledonica uveaensis (op. cit., p. 25) [= viridinitens]

Myiagra caledonica mareensis (op. cit., p. 25) [? = melanura]

Aplonis atronitens minor (op. cit., p. 49) [= atronitens]

*Zosterops lateralis nigrescens (op. cit., p. 34)

Of the three islands, Lifu and Uvea have a number of forms in common, which do not occur on Mare. Mare, on the other hand, shows a closer relationship with New Caledonia than the other two islands (Zosterops xanthochroa, Gerygone, etc.).

A preliminary study of the collections permits the following taxonomic remarks:

Columba vitiensis hypoenochroa Gould

Sarasin named a Uvea race (*uveaensis*) on the basis of the smaller total length of a single male. Not only is the "total length" an entirely unsuitable measurement, but Macmillan's skins are not at all shorter than New Caledonian birds in the Rothschild collection. The wing-length of adult males from both localities varies between 238 and 248 mm. There is not the slightest difference in coloration.

Chalcites lucidus layardi Mathews

Birds from all three islands are similar to each other and agree fairly well with a series from New Caledonia. No migrant C. l. lucidus were obtained, although most of the specimens were collected outside of the breeding season.

Halcyon sancta macmillani, new subspecies

TYPE.—No. 336473, Amer. Mus. Nat. Hist.; σ^2 ad.; Mare Is., Loyalty Islands; December 2, 1937; L. Macmillan. Similar to *Halcyon sancta canacorum* Brasil from New Caledonia, but with a much shorter bill; averaging darker above, and deeper ochraceous below.

BILL (from nostril).—H. s. macmillani: Mare (8 σ^{\uparrow} ad.) 28–31 mm. (29.9), Lifu (8 σ^{\uparrow} ad.) 32–33 (32.5), Uvea (6 σ^{\uparrow} ad.) 30–32 (31.2).— H. s. canacorum: New Caledonia (5 σ^{\uparrow} ad.) 34–38 (35.8).

WING.—H. s. macmillani: Mare (8 ♂ ad.) 85–94 (89.9), Lifu (8 ♂ ad.) 88–97 (92.0), Uvea (3 ♂ ad.) 85.5, 89, 89.5.—H. s. canacorum: (5 ♂ ad.) 89–95 (91.9).

RANGE.—Mare, Lifu, and Uvea, Loyalty Islands.

The short bill of the Loyalty Islands kingfisher has already been mentioned by several authors (see Sarasin, *op. cit.*, p. 16), though none of them had sufficient material to be sure. The Australian races have a longer and more slender bill.

There is a certain amount of variation within the Loyalty Islands. Mare Island birds have the shortest bill, Uvea birds have it longer, and Lifu birds have the longest. There is also a certain difference of coloration: Mare and Uvea birds average deeper ochraceous underneath than Lifu birds. Uvea birds are distinctly darker above than those from Lifu and Mare, but this is probably due to the freshness of their plumage.

It is worth mentioning that these birds clearly belong to *sancta* and show no intergradation with *Halcyon chloris* of the neighboring islands of the southern New Hebrides.

Gerygone flavolateralis lifuensis Sarasin

Excellent series from Uvea, Lifu, and Mare permit definite conclusions concerning the geographical variation on these islands. It turns out that there is not the slightest difference between adult specimens from Uvea and from Lifu. The type of *rouxi* (Uvea) is a young bird, but identically colored birds were also collected on the other two islands. This plumage seems to be worn for a considerable period of time, since a number of birds with it had the skull completely ossified. The birds from Uvea and Lifu are to be united under the name lifuensis.

The New Hebrides form *correiae* is quite

different. It is much brighter on abdomen and flanks, more greenish on the back and with somewhat more white in the tail.

Aplonis striata atronitens Gray

There seems to be a slight increase in size from Uvea southward to Mare. The minimum wing-length of adult males on the three islands is: Uvea 111 mm., Lifu 113, Mare 115. Still the overlap is too large to recognize an endemic form on Uvea. Additional reasons against the employment of the name *minor* Sarasin have been stated by me on a previous occasion (Mitt. Zool. Mus. Berlin, XX, p. 336).

No differences were found between Erythrura trichroa cyanofrons from the Loyalty Islands and New Hebrides, between Zosterops lateralis nigrescens from Uvea and Mare, among Philemon lessoni from New Caledonia, Lifu and Mare, among Myzomela cardinalis lifuensis from Uvea, Lifu and Mare, and between Pachycephala pectoralis littayei from Lifu and Uvea.