

Forgotten Feathers.

BY GREGORY M. MATHEWS, F.L.S., F.Z.S., M.B.O.U.

PETROPHASSA RUFIPENNIS (ROCK-PIGEON).—The type of this bird was got in Arnhem Land, about the sources of the South Alligator River, in 1894 or 1895.

On 11th November, 1845, Leichhardt, about the same locality, saw this bird. He says:—"A new species of Rock-Pigeon (*Petrophassa*, Gould) with a dark brown body, primaries light brown without any white, and with the tail feathers rather worn, lived in pairs and small flocks like *Geophaps*, and flew out of the shade of overhanging rocks, or from the moist wells which the natives had dug in the bed of the creek, around which they clustered like flies round a drop of syrup."*

Thus 50 years went by after the bird had been first seen before it was described.

This bird also has the metallic coppery-violet spot, almost concealed, on some of the upper wing coverts and one of the inner secondaries, the same as *P. albipennis*. In the original description of *P. rufipennis* it was stated that these spots were not there. The bird in my collection is a male.

From Magazines, &c.

VISIT TO AUSTRALIA.—In *The Avicultural Magazine* (March and May numbers) Mr. David Seth-Smith, F.Z.S., continues (*vide Emu*, viii., p. 223) his pleasantly written field observations. With Mr. A. J. Campbell and Messrs. C. C. and T. A. Brittlebank, Mr. Seth-Smith visited the famous Werribee Gorge, Victoria, where a goodly number of birds were identified and field observations made. A photograph is given of a scene in the Gorge, also of a typical gum-tree (eucalypt) in flower, the feasting ground of Lorikeets. Another account describes Ferntree Gully, in the Dandenongs, and its feathered inhabitants; also a visit to Miss Helen Bowie's aviaries, and the birds seen in the Botanic Gardens, Melbourne. Of all the birds Mr. Seth-Smith saw in Australia, he "liked none so well as the glorious little Blue Wren."

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FLIGHT OF AUSTRALIAN MUTTON-BIRDS IN THE NORTH PACIFIC.—"On the 25th of August, for the only time during my stay at Pacific Beach, Washington, the fog lifted sufficiently about an hour before dark to enable me to see for a long distance off shore. To my surprise and extreme gratification

* "Journal of an Overland Expedition in Australia," by Dr. Ludwig Leichhardt (1847), p. 476.

an immense flight of Shearwaters was in full progress; for as far as the eye could reach from north to south there was an unbroken ribbon of birds. This ribbon had a width of about ten birds, all flying north and flapping leisurely just above the surface of the water. They were about eight hundred yards off shore, and a strong field-glass showed them to be all similar in colour to the dead Slender-billed Shearwaters (*Puffinus tenuirostris*) picked up on the beach. I watched the flight from time to time until it was obscured by darkness, but there was no diminution of the numbers, and it was impossible to tell when it stopped or how long it had been going on before I was able to see it. Foggy weather during the remainder of my stay made further observations on this subject impossible."—J. H. Bowles, Tacoma (*Condor*, Jan.-Feb., 1909).

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THE CITING OF "AUTHORITIES."—In a short paper, entitled "Remarks on the Practice of Attaching 'Authorities' to the Scientific Names of Animals," in *The Ibis* for July last, Mr. P. L. Sclater, D.Sc., F.R.S., makes some pertinent observations, in which he deprecates the custom as being burdensome and unnecessary and as tending to establish "a trinomial system of nomenclature instead of the simple binomial system of Linnæus." The writer does not consider it advisable that the name of the author who first described the species should be always added to the name, and thinks that "in the case of the less-known species it would be much better to give, when it is considered necessary, a reference to the original description of the species or to some standard work (such as the 'Catalogue of Birds in the British Museum') in which it has been described." Dr. Sclater concludes his paper in the following words:—"I will not on the present occasion go into the vexed question of 'sub-species' and how to call them, but merely repeat the conclusions I have come to on this subject as follows:—(1.) That the 'authority' (as it is usually called) does not form a part of the scientific name of any species, but, when added, is merely for convenience of reference. (2.) That in the case of the names of all well-known species the 'authority' is quite unnecessary and may be altogether omitted."

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BIRD-MIGRATION.—The problems relating to migration have long been the subject of patient research by scientists. Ornithologists especially, on many occasions, have dealt with the intricate question concerning the migration of birds, and have attempted to explain the causes governing this world-wide avine habit. In *British Birds*, iii., No. 1, one of the honorary members of the Aust. O.U., Dr. J. A. Allen, Curator of Birds

and Mammals, American Museum of Natural History, deals succinctly with the migratory movement. In the main he is in accord with the "Principles Governing Movement in Cuckoos and Migration of Birds," as expressed by Mr. A. H. E. Mattingley, C.M.Z.S., in *The Emu*, v., p. 145, and vi., p. 33, wherein it has been shown that the movement is not attributable to instinct. The extent of the seasonal movement varies in different species, mainly in accordance with the nature of their food, and is also more or less correlated with their powers of flight. There is every degree of migratory movement in different species of birds, from slight nomadic movements to extended migration in accordance with the physiological needs of the species. The life of a bird, like that of most animals and plants, is made up of annual cycles. The controlling force that governs these cycles and determines the manner of life of the species is the fundamental fiat of Nature—"to increase and multiply"—the perpetuation of the life of the species. The influence governing the selection of a breeding-site is the approach of the breeding season. The cause of the seasonal movement or migration is thus beyond question physiologic, and hence periodic and irresistible. If climatic conditions were everywhere uniform, there would be no migration. Migratory birds, of whatever class, which seek high latitudes for breeding stations find there the conditions most favourable for reproduction as regards not only food but the general environment. The sole and all-sufficient cause of migration is the necessity of a congenial environment for the reproduction of the species. The inception of the movement is the periodic necessity of reproduction, and the journey to the breeding station, be it long or short, is made in obedience to physiologic changes which the bird is powerless to resist or control. The return journey is a natural and necessary sequence. Except figuratively speaking, one cannot ascribe the cause of the migratory movement to "strong home-love." Young birds when left behind join the general throng of migrants, which includes birds of many species. The migratory habit is of the highest antiquity, and is an inseparable part of the evolution of the species. It is a specific trait of their physical characteristics. Many birds not much unlike existing types—belonging in many instances to the same genera—existed in tertiary times. Since this period the earth's surface has undergone great physical and climatic changes, which have in turn immensely modified not only the distribution but the physical characters of its inhabitants. These facts furnish good ground for the belief that bird migration, possibly already incipient at this remote period, became emphasized and mainly developed by the recession of glaciation. It is recognized that birds are endowed with the ability to remember and recognize land-marks, hence

their ability to find their way in migration is not a "mystery." It is also conceded that birds are endowed with a great sensitiveness to atmospheric conditions and readily recognize approaching changes of weather. Birds migrate from areas of high barometric pressure to areas of low barometric pressure. In the northern hemisphere the direction is northward in spring and southward in autumn. Migration is coincident with these changes, which govern the birds' direction on migration to a large extent. Besides being endowed with remarkable sensitiveness to meteorological conditions, they also seem to be endowed with some sense of direction, as yet unexplainable. It will therefore be seen that the migratory movement is due to the stimuli of the environment, which induce physiological change, and is therefore opposed to instinctive movement.—A. H. E. M.

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"A JOURNEY TO BRITISH NEW GUINEA IN SEARCH OF BIRDS-OF-PARADISE."—In *The Ibis* for April, 1909, Mr. Charles B. Horsburgh contributes under this title a very readable narrative of an expedition to the interior of British New Guinea, undertaken in the interests of Sir William Ingram. While some general collecting was done, the main purpose of the party was to obtain a collection of live Birds-of-Paradise. Mr. Horsburgh was accompanied by Mr. W. Stalker, who had previously been for some time engaged in collecting birds and mammals for Sir William Ingram in the Northern Territory of Australia. On arrival at Port Moresby some little difficulty was experienced in securing the services of a sufficient number of "boys" to act as interpreters and servants. From Port Moresby the party proceeded to Yule Island, where they were hospitably entertained and assisted in their arrangements by Mr. N. H. M. Bowden, the Resident Magistrate. On the 10th of March, accompanied by Mr. Bowden, who had official business in that village, they left Yule Island in a whaleboat and some native canoes for the passage up the beautiful Ethel River to Bioto. Next morning they commenced their journey to Madiu, in the mountains, which place was reached on the afternoon of the third day after leaving Bioto. Here an unoccupied mission-house was converted into a camp, a three-hours' journey being made next morning to the Mission Station at Dilava to request permission to occupy the house, which was readily accorded. On the route from Bioto many birds were seen or heard, including Parrots, the Crowned Pigeon (*Goura coronata*) and other Pigeons, Marquis Raggi Bird-of-Paradise (*Paradisea raggiana*), Cassowaries, a Frogmouth (*Podargus intermedius*), White Cockatoos, Hornbills, &c. Once settled at the mission-house, with the assistance of the natives collecting went on apace. Mr. Horsburgh says:—"For the next three weeks our daily

routine did not vary much. Live birds, mammals, and reptiles came in to such an extent that our collapsible cages were soon filled, and we had to build two large avaries under the house. These measured roughly about 6 x 8 x 5 feet, and into one of them we turned all the Hunstein's Paradise-Birds, which soon became tame enough to feed from our hands. The other held several sorts of Doves and some Raggi's Paradise-Birds. No single day passed without some addition to our collection, and in reviewing our united experience with European and other birds, Stalker and I agreed that we had never handled such confiding and fearless creatures as these. They would usually take food from our hands within three days of their capture. The Hunstein's Birds-of-Paradise were the first examples of this family brought in. The males clear a small open space on the ground in which to display their beautiful plumage to a number of admiring females. It is an easy matter for the natives, who are all aware of this habit, to arrange a net near these 'dancing grounds,' and at an opportune moment to frighten the birds into its meshes by a sudden shout and clapping of hands." These birds were found to be more delicate than the other species, while *Parotia lawesi* (Lawes Bird-of-Paradise) proved to be quite hardy, and quickly became very tame. Six specimens of one of the Bower-Birds (*Ælurædus melanocephalus*) were procured, as well as a few examples of *Amblyornis subalaris* (Subalar Bower-Bird), and *Phonygama purpureo-violacea* and *P. chalybeata* (Manucodes), a single specimen only being obtained of the latter species. A pair of Pigmy Parrots (*Nasiterna*) and single examples of *Lophorhina minor*, *Pitta mackloti*, and *Rhectes dicrous* were brought into camp, but none of these survived the rough treatment they had received at the hands of their native captors. Before leaving New Guinea Mr. Horsburgh received two splendid Rifle-Birds (*Ptilorhis intercedens*), one of which, unfortunately, died from an injury, but the other was safely transported to London. In order to catch a convenient steamer—vessels calling at Yule Island only at intervals of 10 weeks—Mr. Horsburgh left Madiu on 14th April, being accompanied as far as Yule Island by Mr. Stalker, who, however, was to return and proceed farther into the interior in quest of the splendid Prince Rudolph Bird-of-Paradise. Mr. Horsburgh shipped his precious cargo at Yule Island without mishap, but on arrival at Cooktown, owing to the regulations prohibiting the importation of birds, &c., into Queensland, had some difficulty in transshipping his collections. However, the sanction of the Secretary for Agriculture at Brisbane was received in time to catch the s.s. *Wodonga* for Sydney. On arrival there his collections were accommodated at the Zoological Gardens until 24th May, when they were placed on board the s.s. *Victoria*, and, reaching London on 28th

June, were handed over to the authorities of the Zoological Society. An appendix to the paper, in addition to the Birds-of-Paradise taken Home by Mr. Horsburgh, gives a list of a consignment received later in London from Mr. Stalker, which included specimens of all those in Mr. Horsburgh's collection, and, in addition, one example of the coveted Prince Rudolph Bird-of-Paradise (*Paradisornis rudolphi*).

Review.

["A Monograph of the Petrels (Order Tubinares)."] By F. Du Cane Godman, D.C.L., F.R.S., &c.]

PART IV. of this excellent work has been received. In connection with the important publication the following remarks have been kindly written for this journal by Mr. H. Hamilton, Director of the Dominion Museum, New Zealand. The preceding notices* have been written from an Australian point of view. Mr. Hamilton's review will be of interest because of its New Zealand standpoint:—

Ornithologists have been looking forward with great interest to the elaborate "Monograph of the Petrels," by F. Du Cane Godman, which has been for some time in preparation, the printing of which has been much delayed by the unfortunate illness of the author. The work is more specially interesting to New Zealand and Australian ornithologists as the Petrels, using the term in its widest sense, of the Southern Pacific are difficult to identify, and their synonymy is much involved.

The work is to consist of five parts, four of which have reached New Zealand. In the four parts 99 species are described, and in most cases beautifully figured by Keulemans. Part I. is dated 1907. It may be of interest to give a list and a rough outline of the various views on the Petrels found in the New Zealand seas. It is needless to mention the character of the illustrations, as the name of the author sufficiently guarantees their excellence, the plates being drawn from either the type or from specimens selected by the author from standard collections. To every species there is a full synonymy, and there is little doubt that the work will remain the standard on this very difficult group for a long time.

OCEANITES OCEANICUS, Kuhl. (Wilson Storm-Petrel), Pl. 12.—One of the most widely distributed of the whole order Tubinares. It has the web of the feet partly yellow. Additional information by the Antarctic Expedition is given as to the occurrence of these birds on the polar pack ice. It appears to have been found also by the Scottish Antarctic Expedition at the South Orkney Islands, and it is evidently widely distributed, as specimens have been found in the British seas. The first authentic egg appears to have been taken at Kerguelen Island.

GARRODIA NEREIS, Gould (Grey-backed Storm-Petrel), Pl. 14.—A very common New Zealand species, discovered by Gould on his expedition to Australia in 1839.

* *Emu*, iv., p. 205; viii., pp. 45 and 228.

PELAGODROMA MARINA, Lath. (White-faced Storm-Petrel), Pl. 15.—*Thalassidroma fregata* (nec L.), Buller's "Birds of New Zealand," p. 321 (1873).

PEALEA LINEATA, Peale (Peale Storm-Petrel), Pl. 16.—Only three specimens are known. One was presented to the British Museum by Mr. G. Carrick Steet, who procured it in the neighbourhood of Banks Peninsula, New Zealand. Bonaparte mentions the specimen in the Paris Museum as having been procured in 1829, during the voyage of the *Astrolabe*, off the East Cape, in the North Island.

CYMODROMA MELANOGASTER, Gould (Black-bellied Storm-Petrel), Pl. 17.—A very full discussion is given of this species.

CYMODROMA GRALLARIA, Vieill. (White-bellied Storm-Petrel).—This has been found in several localities near the Australian coasts, but has not yet been recorded from New Zealand, and probably has escaped recognition.

PUFFINUS BULLERI, Salvin (Buller Shearwater), Pl. 23.—Six examples of this rare bird are now known. It is interesting to find that it has been recorded from Point Pinos, California.

PUFFINUS CHLORORHYNCHUS, Lesson (Wedge-tailed Shearwater), Pl. 24.—This is the same as *P. carneipes* (nec Gould), Cheeseman, and one of the Mutton-Birds of Australian naturalists. The bird has a long and intricate synonymy.

PUFFINUS OBSCURUS, Gm. (Dusky Shearwater), Pl. 34.—A specimen is recorded from New Zealand, but Sir Walter Buller was never able to confirm its existence here. It is, however, common further north in the Pacific.

PUFFINUS GAVIA, Forster (Forster Shearwater), Pl. 32.—This bird was discovered in Queen Charlotte Sound, New Zealand, during the voyage of Captain Cook, but was not described until 1844. This is the North Island Mutton-Bird, and they are taken by the Maoris in great numbers in the month of February, at Whale Island, in the Bay of Plenty.

PUFFINUS ASSIMILIS, Gould (Gould Shearwater), Pl. 35.—This species is confined apparently to the northern portion of New Zealand. Much information will be found under this species and subsequent ones as to the "Mutton-Birds," which are largely used for food on the various islands, and which belong to several genera and species. It is quite possible that this conclusion may have to be modified by the researches of the party who spent ten months on the Kermadec Islands, as they claim to have made exhaustive observations on the birds of the main island at any rate.

PUFFINUS CARNEIPES, Gould (Pink-footed Shearwater), Pl. 37.—Common on the coasts of New Zealand. Breeds plentifully on White Island.

PUFFINUS GRISEUS, Gm. (Sooty Shearwater), Pl. 38.—New South Wales, Norfolk Island, and the Kermadecs.

PUFFINUS TENUIROSTRIS, Temm. (Short-tailed Shearwater), Pl. 39.—Breeds in burrows on Kaimanawa and inland ranges, New Zealand. It has apparently a very extensive range both north and south of the equator. This bird is largely used by the New Zealand natives as an article of food when in the young state. (This is the well-known Mutton-Bird of the Bass Strait islands.—Eds. *Emu*.)

PRIOFINUS CINEREUS, Gm. (Great Grey Shearwater), Pl. 41.—This appears to be an occasional visitor, as Captain Fairchild procured one between Wellington and the Chatham Islands.*

THALASSÆCA ANTARCTICA, Gm. (Antarctic Fulmar), Pl. 42.—All Southern explorers have seen this bird, and Dr. Wilson, of the *Discovery*, saw *T. antarctica* in the Pacific soon after leaving New Zealand, and until within four days of his arrival at the Cape; so we expect to add this species to our list at any time.

PRIOCELLA GLACIALOIDES, Smith (Silvery-grey Fulmar), Pl. 43.—Several specimens of this species have been secured in New Zealand.

MAJAEQUEUS ÆQUINOCTIALIS, Linn. (White-chinned Black Fulmar), Pl. 44.—Although this bird has been taken on the Tasmanian and New South Wales coasts, it is rare in New Zealand, but is found at the Auckland Islands. It is known almost everywhere to sailors in Southern waters as the "Cape-Hen," the Australian form, *M. conspicillatus*, having the nostrils and the sides of the mandibles a yellowish-horn colour and other points whereby the two specimens may be distinguished. Also used as food where it occurs.

MAJAEQUEUS PARKINSONI, Gray (Parkinson Black Fulmar), Pl. 45.—Fairly common in New Zealand.

ÆSTRELATA MACROPTERA, Smith (Long-winged Fulmar), Pl. 46.—This is the *M. gouldi* of Buller.

ÆSTRELATA LESSONI, Garnot (White-headed Fulmar), Pl. 48.—This handsome bird is rare in New Zealand, but known in most of the Australian seas

ÆSTRELATA PARVIROSTRIS, Peale (Phoenix Island Fulmar), Pl. 52.

ÆSTRELATA INCERTA, Schlegel (Schlegel Fulmar), Pl. 53.—This bird appears to be widely distributed and a not very common species.

ÆSTRELATA MOLLIS, Gould (Soft-plumaged Fulmar), Pl. 54.—There is said to be a series of this species in the Auckland Museum from the Kermadecs, but the author has not been able to confirm the identification. Mr. Cheeseman informs me that they were identified as *mollis* by Sir Walter Butler.

ÆSTRELATA NIGRIPENNIS, Rothschild (Kermadec Fulmar), Pl. 59.

ÆSTRELATA CERVICALIS, Salvin (Sunday Island Fulmar), Pl. 63.—From the Kermadec Group. Now separated from *Æ. externa*.

ÆSTRELATA NEGLECTA, Schlegel (Phillip Fulmar), Pl. 64.—A very variable species, with a wide range.

ÆSTRELATA GULARIS, Peale (Mottled Fulmar), Pl. 68.—*Affinis* of Buller, &c.

ÆSTRELATA LEUCOPTERA, Gould, Pl. 69.—Not hitherto on our lists, but seen by Gould to the north of New Zealand and in the seas of Queensland and New South Wales.

ÆSTRELATA COOKI, Gray, Pl. 71.—Northern parts of New Zealand. Several of these are in the New Zealand Museums.

ÆSTRELATA AXILLARIS, Salvin (Chatham Island Fulmar), Pl. 72.

MACRONECTES (OSSIFRAGA) GIGANTEA, Jacq. and Pucher, Pl. 76 —

* Birds and eggs have also been collected on Macquarie Island—"Nests and Eggs" (Campbell), p. 896.—EDS.

The white form of this bird is noticed. I myself saw two on Macquarie Island.

DAPTION CAPENSIS, Linn. (Cape Fulmar or "Cape-Pigeon"), Pl. 80.

HALOBÆNA CÆRULEA, Gm. (Blue Petrel), Pl. 81.

PRION VITTATUS, Gm. (Brown-billed Blue Fulmar), Pl. 82.—The author points out the variations which occur in the lamellæ and the bill, making it not always possible to separate *P. vittatus* and *P. banksi*. When these birds are thrown up on the shore, as they sometimes are in great numbers, it is possible to form a series which run very much one into the other.

PRION BANKSI, Smith (Banks Blue Petrel), Pl. 83.

PRION DESOLATUS, Gm. = *P. TURTUR* (Dove-like Petrel), Pl. 84.

Description of the Nest and Eggs of the White-bellied Thickhead (*Pachycephala lanioïdes*).*

BY SID. W. JACKSON, A.O.U., CHATSWOOD, N.S.W.

Identification.—Collected by Mr. F. L. Whitlock for Mr. H. L. White, at Condon, North-West Australia, on 30th October, 1908.

Nest.—Constructed entirely of roots, very fine ones being used for the lining. Diameter of nest over all, 6 inches; egg cavity, $3\frac{1}{4}$ inches across by 1 inch in depth. Roots are well fastened together, with the exception of the extreme outside portion, where they are a little loose.

Eggs.—Two in number, and oval in shape, the texture of the shell being fine and very glossy; colour light olive, with a moderately marked belt of umber or dark olive-brown and dull (underlying) spots on the larger ends. Measurements in inches:—(a) 1.04 x 0.73 inches; (b) 1.01 x 0.73 inches.

Correspondence.

A STANDARD COLOUR-CHART.

To the Editors of "*The Emu*."

SIRS,—Since addressing you on the subject of a standard colour-chart in the last issue of *The Emu*, I have ascertained that our esteemed honorary member, Professor Robert Ridgway, Curator Division of Birds, United States National Museum, had published in 1886 a book called "A Nomenclature of Colours for Naturalists and Compendium of Useful Knowledge for Ornithologists." This book, of which there appears to be no copy in Australia, so far as I can ascertain, contains much of the

* For field remarks see Whitlock, *Emu*, viii., pp. 143-145. Gould founded this species on a single male specimen. Robt. Hall described the female in 1901—*vide Vict. Nat.*, xviii., p. 30.