

A New Little Shearwater from the Tubau Islands : *Puffinus assimilis* *myrtae* subsp. nov.

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While working through the petrel skins in the British Museum (Natural History) some years ago I discovered, among a series of skins of Audubon's Shearwater, *Puffinus lherminieri dichrous*, from the central Pacific, a bird from Rapa Island in the southerly Tubau or Austral group, which certainly does not belong to that form, and appears to be an example of an undescribed race of the Little Shearwater, *Puffinus assimilis*. The existence of this specimen must have been noticed by the late Gregory Mathews, for the back of the label is annotated '*assimilis* G.M.M.' in his handwriting, but so far as I am aware it has never been mentioned in print before. I have hesitated to report its presence or describe it as a new race until now owing to the complete absence of comparative material from neighbouring populations of the species in European museums, but since I have now obtained examples of the New Zealand races on loan from the American Museum of Natural History, this seems an opportune moment to discuss it. I am grateful to Mr. R. W. Sims and Dr. Dean Amadon for arranging the loan from New York, and M. Christian Jouanin, Dr. D. L. Serventy, and Dr. R. A. Falla for discussing the group with me in the past; I hope to present a more detailed study of geographical variation in the 'puffinoid' shearwaters elsewhere.

My experience of the southern populations of *Puffinus assimilis* agrees with that of the most important previous workers—Murphy (*Amer. Mus. Nov.*, 276) and Fleming and Serventy (*Emu*, 43, 113-125). I agree very strongly with the last two authors regarding the nomenclature of the species (*Emu*, 52, 17-23), and concur with them in deploring the unwarranted attack by Gregory Mathews, in his old age, on the validity of the specific name *Puffinus assimilis* Gould, which can only be described as mischievous; it seems to me a serious reflection of the discrimination of leading British ornithologists that it has received so much attention in England. I also agree with previous authors in having difficulty with the classification of the North Atlantic populations of the species, but I will not discuss that here. The southern races show the following geographical variation—

The northern populations in the Australian region are all jet black above, with much white on the side of the head, and pure white inner vanes to the primaries and under tail coverts. They are small, becoming larger from west to east, from Western Australia (*P. a. tunneyi*) through Lord Howe and Norfolk Islands (*P. a. assimilis*) to the Kermadec

Islands (*P. a. kermadecensis*). The birds from Norfolk Island average slightly larger than those from Lord Howe, but the difference is small, and the type, said to come from New South Wales, might have come from either place, so there seems no justification for attempts to separate them subspecifically.

A specimen of the New Zealand race, *P. a. haurakiensis*, already described by Murphy, agrees in all respects with the description by Fleming and Serventy, being large, rather brown above, with more marking on the side of the head, dusky inner vanes to the primaries, and a dark tip to the longest under tail covert; it resembles a lightly-marked example of the North Atlantic form *P. a. baroli* very closely in everything except size, and I think Fleming and Serventy were most unwise to comment on the affinities of the latter without examining specimens.

I have re-examined the type of *P. a. elegans* from near Tristan da Cunha, and a considerable series of that form is now available from the outlying islands of the Tristan group and Gough Island. The type is a recently-fledged juvenile still carrying down on the nape; it shows broad pale feather edges to all the feathers of the upperparts, and especially the upper wing coverts, much white on the side of the head, white inner vanes to the primaries, and white under-tail coverts. The white feather edgings of the mantle are still present to a lesser degree in freshly-moulted adults, but they soon disappear with abrasion, so that breeding birds usually have fairly uniform greyish-black backs. They resemble *P. a. haurakiensis* in size, but lack the brownish cast to the plumage, and show more white on the side of the head, primary vanes, and under-tail coverts.

The American Museum of Natural History has sent on loan a juvenile *P. a. kempi* from the Chatham Islands and one of the adults taken at sea at 49° s. 179° w. on February 16, 1926, already described by Murphy. They agree in size with the last two forms, and in the distribution of the dark markings with *P. a. elegans*, but the pale feather edgings are much better developed on the upper parts, giving both juvenile and adult a grey and white rather than black and white appearance. The difference seems sufficiently marked to justify the recognition of this race.

There remains the bird from Rapa Island which forms the main subject of this note.

Puffinus assimilis myrtae subsp. nov.

Description. Closely resembles *P. a. kempi*, having similar broad white feather edgings on the upper-parts, rather more white on the side of the head and neck, and equally brilliant white inner vanes to the primaries, but large, only just coming within the upper range of variation in size reported in that population, with a disproportionately-long tail.

According to the label the bill was grey with a black tip, the legs pale blue with white webs.

Measurements. Wing 196 mm., tail 81 mm., exposed culmen 25 mm., tarsus 40 mm., middle toe and claw 43 mm.

Type. British Museum, registered no. 1925:12:22:147, a female taken on Rapa Island in the Tubau Group on April 17, 1925, by Kelsall.

Remarks. This bird shows an extreme form of the trend towards increase in size associated with a reduction in pigmentation found in the southern members of the *assimilis* group of shearwaters. Its large size and disproportionately long tail suggest that it might be a form of *Puffinus lherminieri*, but its markings, and especially the blue legs and feet, are typical of *P. assimilis*, and I think that there can be no doubt that it belongs to that species. The species normally nests in the winter, and it seems likely that a bird taken ashore in April was preparing to breed; the presence of a breeding colony of this sub-antarctic species on Rapa would not be very surprising, for several other sub-antarctic seabirds, such as *Fregetta grallaria* and *Pterodroma (hypoleuca) nigripennis*, also nest in that region, *Fregetta grallaria* also having a large endemic race, *F. g. titan*.

The type of *Procellaria munda* Kuhl taken at 48° 27' s., 93° w. on February 15, 1796 (Lysaght, *Bull. Brit. Mus. Nat. Hist.*, in press) might also have come from Rapa, for Parkinson's excellent scale pencil drawing shows a similar small shearwater with perceptible contrasting feather edgings on the mantle, and a note says it had blue feet. The dimensions of the drawing, wing 180 mm., exposed culmen 26 mm., tarsus 39 mm., middle toe and claw 43 mm., are rather small, however, and it seems equally likely that it came from some other south-west Pacific breeding place. Juan Fernandez is ecologically suitable, and does not appear to have been visited during the winter when *P. assimilis* should be breeding, for example. If *Procellaria munda* should prove to agree with a Juan Fernandez population it is probably worth repeating that the name has recently been declared a *nomen rejectum* in an Opinion of the International Commission of Zoological Nomenclature, however.

Behaviour of Mangrove Bittern.—While we were sitting in our boat in a mangrove backwater, we were lucky enough to witness part of the courtship display of the Mangrove Bittern. He was prancing around, with one wing touching the ground, and the other one vertical. The hen was not interested, so the bird started to feed.

It lay flat on the sand about a yard from the water's edge, then crept forward inch by inch, and finally made a dive on something in the water.—CHARLES and ESSIE GREEN, Noosa Heads, Qld, 12/5/59.