

da Cunha (*marina*), New Zealand (*maoriana*), Australia (*dulciae*), north Atlantic islands (*hypoleuca*), and the Kermadec Islands (*albiclunis* n.sub.sp.), and there is a suspicion that the bird formerly nested on St. Paul and Amsterdam islands. Races entering subantarctic seas (*maoriana* and *marina*) have longer, more forked tails, shorter tarsi and bills than subtropical races. The Kermadec subspecies alone has white rather than grey upper tail coverts.—C.A.F.

The Populations of the Wedge-tailed Shearwater (*Puffinus pacificus*), by R. C. Murphy. Am. Mus. Novit. No. 1512, 1951.

A statistical study, from abundant material, of size and plumage phases and a summary of breeding biology. *P. p. pacificus* breeds at Kermadec, Norfolk and Kandavu islands, *P. p. chlororhynchus* at many other Pacific islands and in the Indian Ocean.—C.A.F.

Larger Petrels of the Genus *Pterodroma*, by R. C. Murphy and J. M. Pennoyer. Am. Mus. Novit. No. 1580, 1952.

Systematic, distributional, behaviour and breeding data for 15 species are reviewed. The following conclusions affect New Zealand species:—*P. macroptera gouldi* includes Western Australian as well as New Zealand birds, and the American Museum has one or more old skins from the Auckland Islands. The name *Pterodroma solandri* (Gould) is used for the "Bird of Providence" because Gmelin's description of *P. melanotus* cannot be reconciled with the characters of this species. *Pterodroma lessoni* is perhaps replaced by *P. incerta* as a representative species in the Atlantic. *P. brevirostris* is considered more akin to *P. inexpectata* than to the subtropical *P. mollis*. The mottled petrel, (*P. inexpectata*) before predatory animals restricted it in New Zealand, had one of the most extensive breeding ranges of any member of the genus, and its enormous distribution at sea may be due to its large population in primitive times. Judging from 500 specimens of the variable *P. neglecta*, a subtropical Pacific species with variable or prolonged breeding season, the authors recognise two subspecies: *P. n. juana* Mathews (Juan Fernandez and San Ambrosio) and *P. n. neglecta* (central and western South Pacific between Ducie Island and the coast of Australia). *Pterodroma alba* (Gmelin) (*parvirostris* of Oliver's "New Zealand Birds") is a typically tropical zone petrel, and the only Kermadec specimen is considered an accidental record (though Oliver mentioned four birds on the ground in the forest on 7 March, 1913.)—C.A.F.

The Manx Shearwater, *Puffinus puffinus*, as a Species of World-wide Distribution, by R. C. Murphy. Am. Mus. Novit. no. 1686, 1952.

Eight forms of medium-sized shearwater characterized by similar proportions and plumage pattern, previously classed as several species and subspecies, are linked as subspecies of the Manx shearwater and fall into two groups, one black-backed, the other brown-backed. The latter group includes the New Zealand fluttering shearwater (*gavia* Forster) and Hutton's shearwater (*huttoni* Mathews). No additional Australasian races are recognized. The type of *huttoni* was originally labelled "*Puffinus gavia*" in ink and "Snarcs Isl." in pencil by Dannefaerd, but a second specimen so labelled is *gavia* (not *huttoni*) and doubts concerning the source of the type are thus strengthened. The axillaries, dark to the tips (as noted by Clark and Fleming, in 1948) are completely diagnostic of the 18 specimens of *huttoni* in the American Museum, which include birds collected at sea off Banks Peninsula in January, 1926. Since *huttoni* has not been found breeding, it is hard to see how Murphy can be confident (p. 5) that it breeds in the Southern Hemisphere spring in months corresponding to the April to June season of Northern Hemisphere forms.—C.A.F.

The "Pealea" Phenomenon and other Notes on Storm Petrels, by R. C. Murphy and J. P. Snyder. Am. Mus. Novit. no. 1596, 1952.

Examination of the five known specimens of storm petrels with ventral streaking (*Fregetta lineata* Peale of Oliver's New Zealand Birds) has shown that they represent aberrations of at least three different kinds of storm

petrel. The type of *lineata* (allegedly from Samoa) is associated with (i.e., identified as) the subantarctic *Fregetta tropica*. The Whitney South Sea Expedition specimen from the Marquesas group (identified by Murphy as *lineata* in 1924 and named *Fregettornis guttata* by Mathews in 1933) is identified as *Fregetta grallaria*. The two Paris Museum specimens and the type of *Pealeornis maoriana* Mathews (all three from off Banks Peninsula, not East Cape, as some have translated "Promontorio Orientali") are listed under *Oceanites oceanicus* because the authors "strongly suspect" that they are a "Pealea" phase of that species. Mathews (1933) had already demonstrated that three distinct species were involved, and had related two of them to *Oceanites* and *F. grallaria*, but he preferred to name them distinct species.

The white-bellied storm petrel (*Fregetta grallaria*) has a tenuous place on the New Zealand list, based on a specimen from "off New Zealand" (H. Whitely coll.) described by Mathews (1932) as *F. g. deceptis*. Murphy and Snyder have re-examined and measured the New Zealand specimen but it cannot be attributed to a definite breeding population because there are insufficient skins to characterize more than two contrasting subspecies of *grallaria*, one from Juan Fernandez (small), the other from Rapa (large). Other specimens from breeding areas (Tristan, Lord Howe, etc.) are intermediate, and so is "*deceptis*," although it approaches the Rapa form in some dimensions.—C.A.F.

Rare and Extinct Birds of Britain, by Ralph Whitlock. F.Z.S., M.B.O.U., 224 pp., with 85 monochrome plates. Published by Phoenix House, Ltd., London. (N.Z. agents, A. H. & A. W. Reed). N.Z. price, 26/3.

A surprisingly large number of birds are included in this volume under the headings of "lost breeding species, rare and local nesting species, local subspecies, Continental and allied subspecies, rare birds of passage and seasonal visitors, migrants and eccentricities." A short introductory chapter discusses the subject from a general viewpoint and refers to the vast changes in environment in Britain as a result of man's activities and their effect on bird life. The epilogue gives a more optimistic view of future possibilities, of species returning to former haunts and the prospects of new arrivals, in a period which indicates a trend to warmer climatic conditions, a gradual but vast process, in which many birds are appearing in more northerly lands than formerly. It seems likely on present evidence that these birds may form a new group of species which may become established as breeding birds in Britain. A feature of this book is the exceptionally fine series of plates illustrating 84 species; it is evident that great care has been taken in choosing photographs of the highest standard. The result is an attractive volume that should be of wide appeal to an increasing band of bird-minded people.—R.H.D.S.

Fair Isle Bird Observatory Bulletin, No. 9, 1953, edited by Kenneth Williamson, director, issued to the Friends of Fair Isle. Subscription £1/1/- per year.

Many New Zealanders no doubt look forward to the day when this country has at least one bird observatory comparable to that established at Fair Isle, between Shetland and Orkney islands. Fair Isle is exceptionally well placed in relation to migratory movements, as a perusal of this number of the bulletin shows. Much valuable information on migration is being brought to life by the activities of this station, and all members interested in this absorbing subject can become acquainted with the work of the Fair Isle Observatory and at the same time assist the project by subscribing to its bulletin. The director's address is: 1 April to 31 October, Fair Isle Bird Observatory, by Lerwick, Scotland; 1 November to 31 March, Fair Isle Bird Observatory Trust, 17 India Street, Edinburgh, Scotland.—R.H.D.S.

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