

da Cunha (*marina*), New Zealand (*maoriana*), Australia (*dulciae*), north Atlantic islands (*hypoleuca*), and the Kermadec Islands (*albiclunis* n. subsp.), 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