

later a cow put its foot on the eggs and the birds left the vicinity. From the small number in the clutch and their hasty departure, I presume that they were young birds and that they may return with more determination next season.

HUTTON'S SHEARWATER (*Puffinus gavia huttoni* Math.) IN NEW ZEALAND.

By V. I. Clark and C. A. Fleming, Wellington.

In 1912, Gregory Mathews, in his "Birds of Australia," Vol. 2, published a description of a new subspecies (**huttoni**) of the common Australian and New Zealand fluttering shearwater (*Puffinus gavia*) from the Snares Islands,* based on a specimen in the Rothschild Museum, collected by Henry Travers in January, 1890. He recorded an Adelaide specimen as belonging to the new race, which is larger than other forms of the species. In 1937 a storm-killed example from West Australia was sent to Mathews who mistook its relationship and described it as *Puffinus leptorhynchus* n. sp. believing it to be related to the Manx shearwater rather than to the fluttering shearwater. In 1939, Dr. D. L. Serventy collected two specimens at sea off Kangaroo Island, South Australia, and his detailed account of them, and of the history of the subspecies appeared in the Emu for October, 1939, where full literature references may be found. Serventy concluded that *Puffinus gavia huttoni* is a valid and distinctive subspecies, and included in it the Snares Island birds (there are apparently three skins in existence, none of them in New Zealand), a New South Wales storm-killed bird, the West Australian example and his two Kangaroo Island skins. Among dozens of fluttering shearwater examined and measured from the Auckland west coast and other New Zealand districts, none had turned up which could be assigned to the large race **huttoni**, except, perhaps, some of those collected by the Whitney expedition in 1926.

It was therefore a pleasant surprise when one of us (C.A.F.) in 1940 recognised as *Puffinus gavia huttoni* a somewhat moth-eaten, dried, flat skin from Kapiti Island in the Dominion Museum. It had been sent in some years before by Mr. A. S. Wilkinson, who had recognised its distinctness from the usual form of *gavia*, but it had never been examined nor reported upon. In April, 1947, three large skulls were recognised among the remains of small shearwaters at Pukerua Bay (V.I.C.); from their condition it appears almost certain that they had been washed ashore during the severe storm of February 17, 1947. One of the three larger-sized heads was kept, and it is clearly a specimen of **huttoni**. Finally, in October, 1947, a further example came ashore at Pukerua Bay, fresh, and in good feather, but was badly mauled by black-backed gulls before it was collected by V.I.C. These occurrences lead us to believe that this petrel, hitherto considered rare in New Zealand, may be of regular occurrence, and, since it can be recognised by anyone who can take measurements, we suggest that its distinctness from the common fluttering shearwater should be emphasised by the allocation of a different vernacular name, Hutton's shearwater.

Hutton's shearwater may be recognised by its dimensions alone: the

* No later visitors to the Snares have seen this petrel and there is a possibility that Travers's specimens were wrongly labelled.

bill is up to 3mm. longer, and yet not much wider than that of the fluttering shearwater, and the resulting narrower shape is noticeable when the two are compared. The plumage is practically the same as in *P. gavia gavia*, although the Kapiti skin is particularly dark on the back and both the Kapiti and the last Pukerua Bay bird have darker axillaries than the fluttering shearwater (wholly brown, without white tips). Dimensions are compared in the following table. Fluttering shearwaters from northern New Zealand and New South Wales (*Puffinus gavia byroni* (Math.) have been distinguished from those of the Cook Strait breeding area (*P. g. gavia* Forst.) by some workers, but there are too few of the latter available to tabulate them separately.

Puffinus gavia gavia/byroni (extreme dimensions of 35 Australian and New Zealand examples, from Serventy, 1939).

Wing.	Tail.	Tarsus.	Culmen
180—221	58—68	36—46	30—35mm.

Puffinus gavia huttoni (extreme dimensions of six Snares and Australian examples, from Serventy, 1939).

Wing.	Tail.	Tarsus.	Culmen.
207—228	64—71	40—43	35—38mm.

Puffinus gavia huttoni (three examples from Cook Strait).

	Wing.	Tail.	Tarsus.	Culmen.
A	228	68	44	38mm.
B	—	—	—	37mm.
C	228	67 (approx.)	44	37mm.

A—Skin from Kapiti, Dominion Museum, collected by A. S. Wilkinson.

B—Dried head, Pukerua Bay, April, 1947, collected by V.I.C.

C—Fragmentary specimen, Pukerua Bay, October, 1947, collected by V.I.C.

Although the Snares Islands, 62 miles south of Stewart Island, are the only known reported breeding ground of Hutton's shearwater, others may exist, but it is probably safe to think of the above Cook Strait birds as widely dispersed members of that southern population. On the other hand, it is remotely possible that the Cook Strait birds are not the same as the Snares one: only more definite information can settle the problem.

Reference.—Serventy, D. L., 1939. The White-breasted Petrel of South Australia. *Emu*, vol. 39, pt. 2, pp 95-107.

SEABIRD MORTALITY IN FEBRUARY, 1947.

By J. M. Cunningham, Masterton.

In mid-February, 1947, a southerly storm of unusual severity hit the southern part of the North Island. Widespread damage and some flooding was the result in the Wairarapa, and at sea large numbers of birds of several species perished. A visit to the Wairarapa by Mr. H. R. McKenzie happily coincided with this storm, and his experience of northern petrels was invaluable on February 16, when a visit was made by the writer with Messrs. McKenzie, R. H. D. Stidolph and P. J. Parr, to Lake Ferry. This is at the south-east extremity of Lake Onoke, which is separated from the sea by Palliser Spit, access to which is made from the western side of the lake. The gale, though still strong, was by this time abating, and it was a fine experience to see several shy mollymawks (*Thalassarche cauta*) and Buller's shearwaters (*Puffinus bulleri*) flying within a few yards of us over the lake, and beating along the line of breakers across the spit. One or two other birds could be seen at