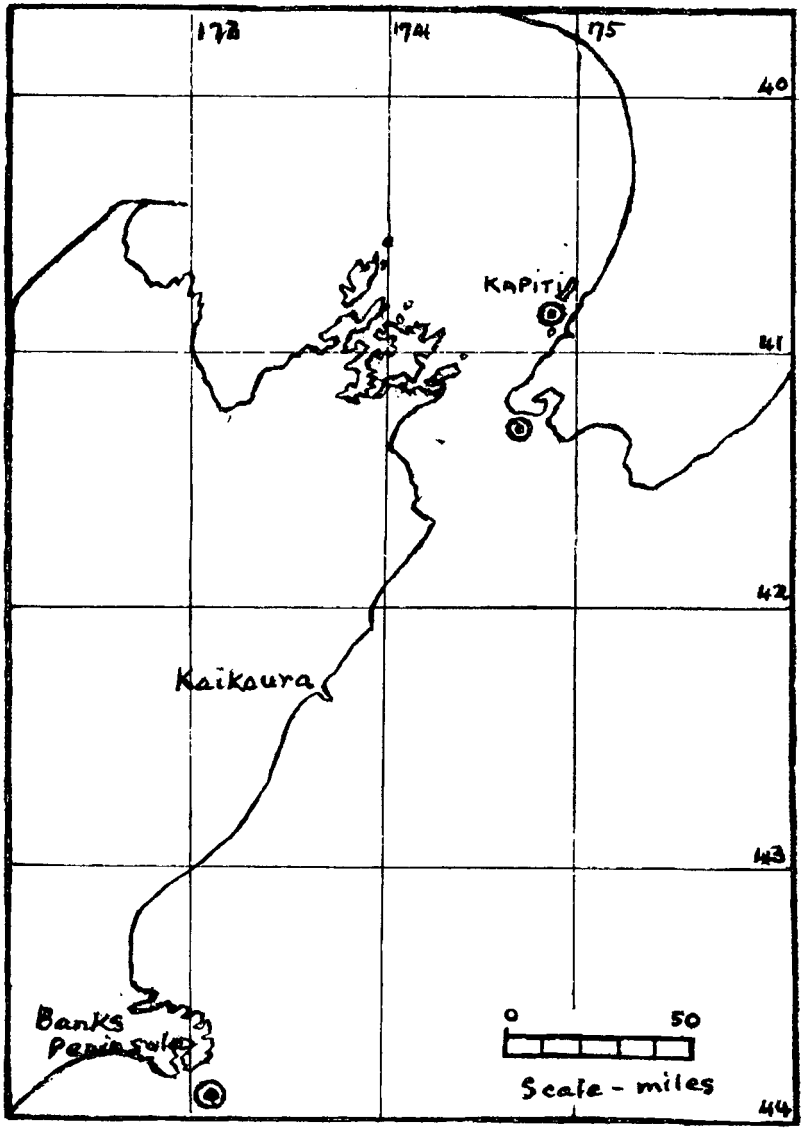
DISTRIBUTION OF HUTTON'S SHEARWATER IN NEW ZEALAND

By R. A. FALLA

The discovery of a breeding place of Hutton's Shearwater, described elsewhere in this issue (Harrow, p. 59) seems an appropriate occasion to review what is already known about this elusive seabird. Although Mathews (1912) had singled out a specimen said to be from the Snares and described it as *Puffinus gavia huttoni*, subsequent reviewers of New Zealand birds disregarded it until Serventy (1939) drew attention to the fact that the common fluttering shearwater of South Australian seas at certain seasons must be referred to *P. gavia huttoni* and not to the typical subspecies. On the basis of this and the supposed occurrence of the same form at the Snares he postulated a probable zonal distribution of the race south of the known range of *P. gavia gavia* from New Zealand to eastern Australia. In the following year the presence in New Zealand of the 'new' form was confirmed when C. A. Fleming detected a specimen in the Dominion Museum which had been collected on Kapiti Island by A. S. Wilkinson, and several years later V. I. Clark found dead specimens at Pukerua Bay, Wellington (Clark & Fleming, 1948). It is noteworthy that when the late A. S. Wilkinson had sent his specimen to the Dominion Museum in 1934 he had recognised that it was not a typical fluttering shearwater.

Since that time there has been no lack of specimens or records, but not from Mathew's type locality, the Snares, where a number of careful seaches has failed to disclose a trace. Since 1947 the series of specimens in the Dominion Museum has grown by accidental accession from 1 to 25, twelve of them immature. The Kapiti bird was an adult but for some time the new accessions were all immature and newly fledged. Most of them crash-landed on the Lyttelton-Wellington steamer express at night between Kaikoura and Cape Campbell, and this pattern of occurrence, between 18th March and 3rd April, had been repeated in several later seasons. Over the same range of dates other immature specimens have been found alive in the southern coastal suburbs of Wellington during thick or stormy weather, the earliest of such so far being 12th March, 1965. Although the occurrence of immature birds has been limited to a period of two months, a wider range of season and distance is represented by wrecks of adults, which have been found at Pukerua Bay (October), Waitarere (January) and Himitangi (September). The only months not so far included in specimen records are May to August inclusive. It is instructive to examine the analyses of 'Beach Patrol' records published since *P. huttoni* has been recognised and identified. In 1960 (Bull and Boesen 1961) 13 specimens are decorded in November-December, all from south and west coasts of Wellington; in 1961 (Bull and Boeson 1963) of a total of 20, North Canterbury produced 4, north coast of South Island 2, Wellington West Coast 10, and Auckland West Coast 4, over a time range September-February; in 1962 Boeson, 1964) the total of 24 (October-March) came


173
174
175
40
41
42
43
44
Kapiti
Kaikoura
Banks
Peninsula
0
50
Scale - miles

from North Canterbury 21 and Wellington West Coast 3. Assuming that identifications were in the main correct, these figures probably reflect a slow but steady build-up of recognition by collectors.

To all records combined can be added some observations at sea, for in good condition of light *P. huttoni* can be distinguished from *P. gavia* by the smudgy underwing pattern. Its dark plumage also is less liable to fading: by February when adult *P. gavia* are ready to moult and much faded, the contrast of plumage tone is very marked. Regular areas of feeding concentration are the tide-rip off Karori Rock, Cook Strait (observations in September and December) and the channel between Kapiti Island and the Waikanae Coast, where in February there is usually a daily concentration of up to several hundred birds in a single flock. *P. huttoni* has not so far been observed feeding either in the sheltered inlets of Wellington Harbour or of the Marlborough Sounds as *P. gavia* regularly does. There may be unrecorded feeding areas of *P. huttoni* off-shore further south as R. H. Beck (Murphy 1952) collected eight specimens from flocks off the south-east tip of Banks Peninsula on 28th and 29th January 1926. The known range at sea of *P. huttoni* therefore appears to be coincident with the southern sections of New Zealand populations of *P. gavia* though its trans-Tasman migration takes it to a more southerly destination. *P. gavia* has an earlier breeding season, the exodus flight of its young from the nest being from mid-January, while that of *P. huttoni* is from mid-March.

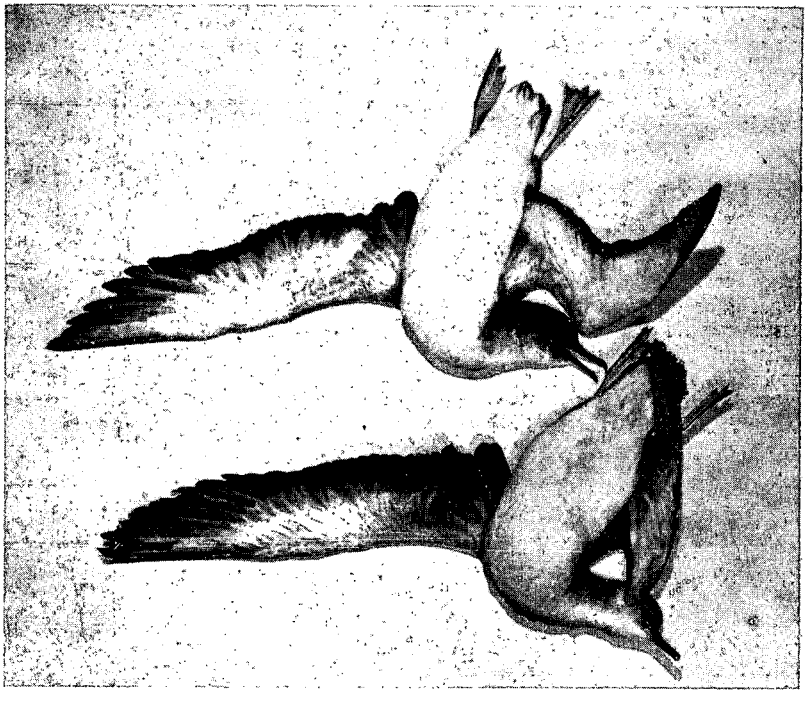
Of the search for nesting places up to 1965 all that need be said here is that every accessible islet and stack from Banks Peninsula to Cook Strait has been examined by several field parties with no result other than the location of more breeding colonies of *P. gavia*. Kapiti at its higher levels and steep western coast remains a possibility not yet fully explored.

IDENTIFICATION

The distinguishing characters originally given by Mathews (1912) have been confirmed and elaborated by later writers, especially Serventy (1939) and reference should be made to them for plumage details and dimensions. As the most likely confusion is with *P. gavia gavia* and the smaller subspecies *P. g. byroni* which occurs in New Zealand but has not been recorded nesting, salient differences will bear re-iteration.

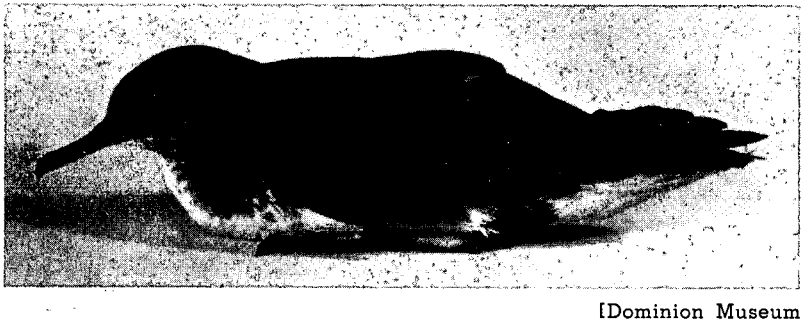
Character	*gavia* (probably two forms)	*huttoni*
Bill length	30 - 35	35 - 38 mm.
Underwing coverts	mainly pure white	variably smudgy with dark shafts
Long axillaries	greyish, square ended white tipped	brown, more pointed, rarely white-tipped
Under tail coverts	pure white	lateral coverts variably flecked with brown on outer webs.

Some of these features are apparent in Plates XIV & XV.



[Dominion Museum

XIV — Specimens of **P. gavia** (upper) and **P. huttoni** (lower).



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XV — Adult Hutton's Shearwater found ashore at Wellington, Jan. 1962.

There are few recorded observations of the habits of *P. huttoni* at sea to indicate much marked difference from *P. gavia*. The large flocks of several hundreds already mentioned as seen by the writer between Paraparaumu Beach and Kapiti Island on 3rd February, 1957, were deployed on a calm surface in a light southerly wind. They were swimming with heads submerged, or plunging straight from flight into shoals of a small silvery post-larval fish.

SYSTEMATIC STATUS

In distribution *P. huttoni* may be assumed to be sympatric in its breeding range with *P. gavia*. The evidence for its occurrence at the Snares has been questioned by Murphy (1952) and there is little doubt but that locality labels on the material acquired in New Zealand from commercial collectors were often unreliable. Murphy *(loc. cit.)* regards both *gavia* and *huttoni* as separate subspecies of *Puffinus puffinus*, assuming, however, a zonal separation in breeding range. If the altitudinal separation indicated by Mr. Harrow's discovery can be accepted as a valid criterion, this subspecific link may perhaps be sustained. For the purposes of this paper I have retreated to the neutral ground of binominal usage.

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FIELD STUDY COURSE KAIPARA HARBOUR, JANUARY, 1965

By H. R. McKENZIE

For the survey of this vast harbour, reputed to have over two thousand miles of shoreline, a period of very high tides was chosen, so that the birds would be restricted to the minimum number of high tide resting places. Hundreds of miles of sinuous mangrove creeks and vast areas of mangrove-covered flats did not need to be patrolled. Twenty-seven Society members and six members of their families took part, divided into ten teams of from two to four Society members, each with one or more experienced leaders. A larger number of observers would have been an advantage. Previously briefed teams for the more northerly assignments went directly to their centres on Saturday, 16th. The southern teams met and camped at the base at Helensville and proceeded to stations early on Sunday, 17th. The plan was for each team to work part of its area over the full tide and then spend the later part of the day surveying the ground to be covered on the following day. This was to occupy the 17th, 18th and 19th, and on 20th, teams