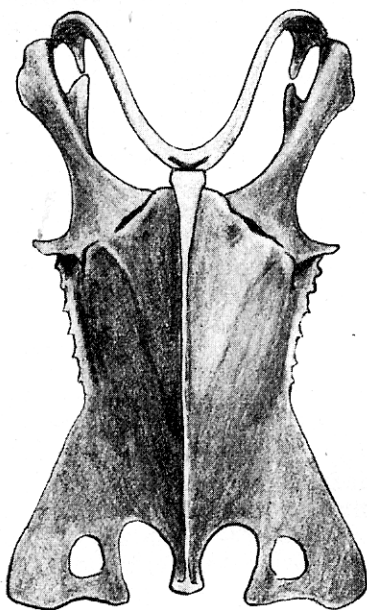


## The Sternum in the sub-genus *Reinholdia*

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Certain features of the sternum of the Fluttering Petrel (*Puffinus gavia*), separated by Mathews as a sub-genus, *Reinholdia*, appear to be characteristic and have not been mentioned before.

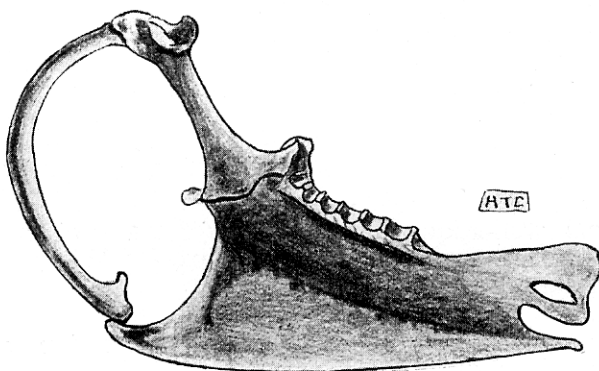


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Fig. 1. Sternum and shoulder girdle of *Puffinus gavia huttoni*; ventral view (Specimen B 21979)

The lateral borders of the sternum are more deeply angulated than in most of the Australian *Puffinus* species, excepting *Puffinus pacificus*, and the outer posterior lateral process (external lateral xiphoid process) is more boldly expanded than in any other local Puffinine form (Fig. 1).

There seems to be a strong tendency for the open notches of the posterior border to become converted into closed foramina. W. A. Forbes (*Zoology, Challenger Expedition*, vol. IV, pt. XI, 1882, p. 48) referred to the inconsistency of this feature but regarded it as an individual variation apparently. This may be true for Petrels generally, but from the ten sterna I have examined, I gained the impression that the notches remain open in



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Fig. 2.—The same, side view.

the youthful or sub-adult birds and tend to become closed as the individuals age. That is true alike of the large race, *P. g. huttoni*, and the smaller sub-species, although so far I have not seen any of the latter repeat the extreme condition of fenestration illustrated by a specimen of *P. g. huttoni* from South Australia (S.A. Mus. Coll., B 21979).

There is not enough material to determine whether there are constant differences between *huttoni* and the smaller races, and I have thought it of interest to include the series of drawings showing variations in the specimens examined and the stages in the progressive closure of the notches. Fig. 3 is of South Australian *P. g. huttoni* and

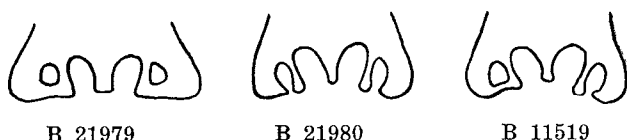


Fig. 3.—Hinder border of the sterna of *P. g. huttoni* from South Australia.

Fig. 4 of *P. gavia* subsp. from the Auckland district, New Zealand, excepting the first from the left in the lower row, which is that of an immature bird of *P. g. byroni* from New

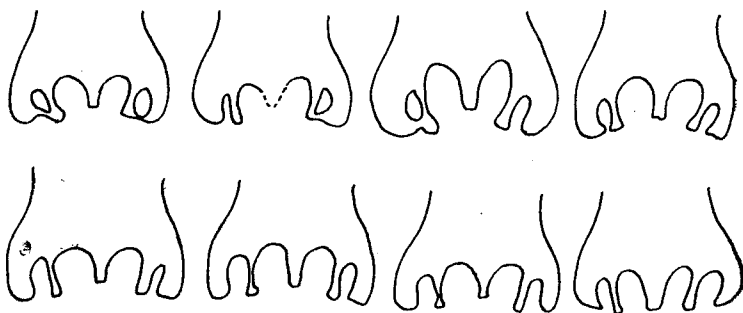


Fig. 4.—Hinder border of the sterna of *P. gavia* subsp. from New Zealand and New South Wales.

South Wales. Specimen B 21979 is also immature. Almost all of the sterna in Fig. 4 are from birds found dead on the beach and so probably represent a majority of immature individuals.