LETTERS

The Editor,
Sir,

CHATHAM ISLAND PARAKEETS

May I comment on the several points raised by Taylor (1976, *Notornis* 23 (2): 198-200) on the subject of comparative size as an isolating mechanism for the parakeets of the Chatham Islands, he having replied to an earlier letter by myself (*Notornis* 22 (4): 351-2; 1975) ?

The main argument being that Taylor believes that the Yellow- and the Red-crowned Parakeets of the Chatham Islands are " roughly the same size." His view is not supported by his material. To make this clearer I have turned his first figure into an histogram (Figure 1). (I take it as accepted that wing-length, in similar birds, reflects their mass). Figure 1 shows that, although there is overlap, the Red-crowned tends to be the bigger bird. Indeed, this is fully confirmed in Figure 2 where ' 5 ' is the Red-crowned and ' 8 ' the Yellow-crowned Parakeet of the Chathams.

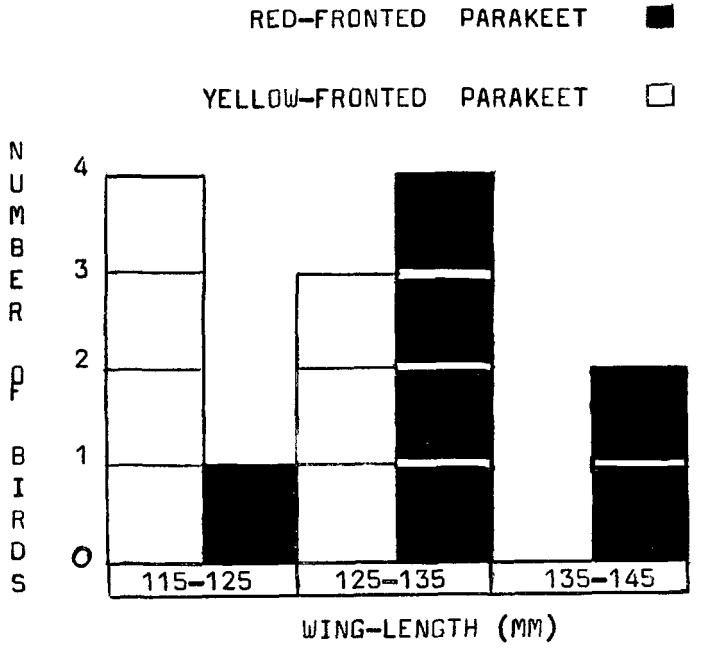

FIGURE 1 — Histogram of figure by Taylor (1976); wing length of Red-crowned and Yellow-crowned Parakeets.

The mean of the measurements given by Taylor, for the Red-crowned, are shown in Figure 2 as the black circle '5' and those of Forshaw as the square. The difference in position of the two on the graph resulting, probably, from the different material available to each author; but they do have a very close similarity.

The strong correlation between the length of the bill and the size of the parakeet is shown in Figure 2 where the mean length of the bill is plotted against the mean wing length for the *Cyanoramphus* parakeets in Forshaw's (1973) *Parrots of the World:*— 1 is *C. unicolor;* 2 *C. novaezelandiae cooki;* 3 *C. n. hochstetteri;* 4 *C. n. cyanurus;* 5 *C. n. chathamensis;* 6 *C. n. novaezelandiae;* 7 *C. n. saissetti;* 8 *C. auriceps forbesi;* 9 *C. a. auriceps* and 10 *C. malherbi.*

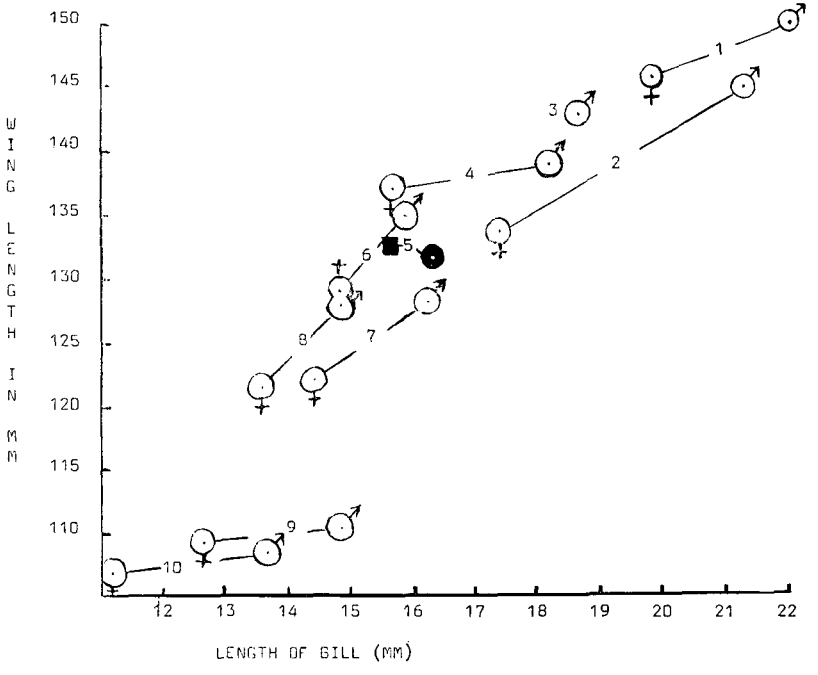

FIGURE 2 — Scatter diagram of wing length and bill length for *Cyanoramphus* parakeets. See text for key to symbols.

Forshaw had ten unsexed skins (and one male) of *C. n. chathamensis* — the Red-crowned Parakeet of this discussion — therefore it had to be shown as a single point. Consequently Taylor's results are also pooled.

Where two species of *Cyanoramphus* parakeets are sympatric the two differ in size. On the graph '1' and '3' are found on Antipodes Island; '5' and '8' on the Chatham Islands and '6' and '9' on the two main islands of New Zealand. ('10' *C. malherbi* is

very likely a 'non-species' from its measurements). The effect of small islands on many birds is to increase their overall size, compared with allopatrics on the mainland. Because of this I take it that the Yellow-crowned Parakeet antedated the Red-crowned Parakeet on the Chathams: '8' is so much larger than '9,' whereas '5' is only marginally different from '6.' Therefore, because of their lesser disparity in size, than is shown for other sympatric species, the parakeets on Chatham might hybridize the more readily. With time, I take it, the Red-crowned Parakeet of these islands will grow larger and/or the Yellow-crowned smaller.

On Antipodes Island and Mangere Island two species of *Cyanoramphus* co-exist and the circumscribed habitats must put them into strong competition for food. Taylor (1975, *Notornis* 22 (2): 110-121) had shown that for these islands each of the four items of food that contribute to more than 5% of the parakeets' total diet is disproportionately divided between the two endemic parakeets. On each island one species eat more leaves and far less flowers, seeds and invertebrates than does the other species. And this 'sharing-out' of the available food had allowed the species to co-exist: before the islands became affected by man.

But on Antipodes Island the Red-crowned Parakeet eats exactly the opposite diet to that which it takes on Mangere. It might be argued that as the islands differ considerably in the nature of their vegetable cover this might explain why the Red-crowned Parakeet has reversed its feeding patterns. My opinion, however, is that on both islands, because of competition for food, it is the bigger parakeet that eats the 'coarser' foods — because their larger bills are more appropriate for this fare — and the smaller parakeets attend to the 'softer' or smaller-sized foods with their relatively weaker bills. This is why I hold that "the difference in feeding pattern between (any) two (sympatric) species is but a further extension of the, very probable, similar feeding distinctions between the different sexes."

GEO. A. SMITH

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The Editor,
Sir,

TRANSLATION PROBLEMS OF SHOREBIRD LITERATURE

Last winter a fellow graduate student (Winifred Cairns) and I contacted about 40 English-speaking shorebird biologists, plus various libraries and government agencies, and inquired about English translations of foreign literature on shorebirds. The response was uniformly enthusiastic, yet only a modest number of translations was located. Two points emerged quite clearly from this little survey. Whereas English-speaking shorebird biologists are keen on studying the extensive