SHORT NOTES

THE NOMENCLATURE OF THE SPOTLESS CRAKE (Porzana tabuensis)

The nominate race *Porzana tabuensis tabuensis* occurs throughout Australia and most of the South-west Pacific. Amadon (1942) separated the birds from the southern part of the range by their larger size, suggesting for the race *P. t. plumbea* an average wing-length of 85 mm with a range wholly over 80 mm. From many localities Amadon had only a few specimens, which with large wing-length ranges (for example, 15 mm around an average of 80.2 mm for eight specimens), makes his comparisons doubtful. I have included in Table 1 and Figure 1 only those localities from which Amadon had more than five specimens and have added measurements from specimens in the National Museum, Wellington, for the Kermadec Islands and New Zealand. Amadon originally had only four specimens from New Zealand and one from the Kermadec Islands.

With the additional data for New Zealand, the case for a larger race in the southern part of the birds' range is less convincing. The wing-length range of New Zealand birds overlaps all those from further north, and the average is lower than that of the Tubuai Islands birds (23°S) and no greater than 2 mm (2.5%) longer than in four other





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	Approx. Lat. °S	Average mm	Range mm	No. specimens
New Guinea	5	80.8	76-84	17
Marquesas	10	82.8	78-85	5
Santa Cruz	10	82.3	79-84	7
Samoa	13	75.5	72–79	6
Tuamotu	16	82.5	78-86	10
Tubuai Is.	23	84.5	83-87	8
Norfolk I.	29	82.9	79-88	10
Kernadecs	29	80.2	74–88	8
Chatham Is.) Tasmania and) S. Australia)	с. 40	86.4	81–92	16
New Zealand	c. 40	83.4	77–91	16

TABLE 1 --- Latitudinal variation in wing length of Spotless Crakes

localities. The range of Amadon's data for the Chatham Islands, Tasmania and South Australia overlaps all but that of the smallest birds in Samoa. A cline in accordance with Bergmann's rule can be seen in Fig. 1, with the Samoan birds standing out as anomalous. Considering measurements alone, one wonders why Amadon did not separate the Samoan birds.

Amadon said that he found no variation in colour that is unquestionably geographical, but Dillon Ripley (1977) said that P. t. plumbea can be separated by the upperparts being brighter and more reddish brown than in P. t. tabuensis. He tentatively assigned the Kermadec Island birds to the nominate race and New Zealand, Tasmania, Chatham Island and South Australian birds to P. t. plumbea. The back colour of birds from Raoul Island (Kermadec Islands) in the National Museum is not noticeably different from that of the mainland specimens. However, two specimens from Meyer Islet (Kermadec Islands) do have brighter backs, but they also have noticeably stouter bills and tarsi than all the other National Museum specimens, suggesting that this small island population of not more than 20 pairs (Merton 1970) may have developed distinctive characteristics. If so, back colour, already a dubious characteristic dismissed by Amadon, may not be of much use in delineating the subspecies P. t. plumbea.

The specimens in the National Museum do not support the separation of the southern Spotless Crake as the subspecies *Porzana* tabuensis plumbea but suggest that random size and colour differences occur.

SHORT NOTES

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UNUSUAL FEEDING OF RED-BILLED GULLS

While at Miranda, Firth of Thames, on 18 April 1981, Barbara Burch and I watched a flock of Red-billed Gulls (Larus scopulinus) feeding for half an hour in an unusual way. It was almost low water with a strong south-westerly wind blowing. The outer shellbank shelved steeply to an extensive area of thick mud covered with a thin film of water. All over this exposed flat of perhaps 400 x 600 m hundreds of squirts of water were being propelled 5 to 12 cm above the surface, creating an extraordinary sight. Gulls flew from the shore 5 or 6 at a time out to the tide's edge and, turning into wind, started to feed. Their course took them over the jets of water and diagonally back to the bank. The small flocks would make three or four round trips, returning to rest on the shell, when another group would replace them. Birds hung on the wind with wings slightly arched and legs dangling just above the surface. After each quick peck the feet would lightly pat the surface, though this was often only a token gesture, the arch in the wings would increase and the bird would move forward to peck again. We were reminded of the dancing flight of storm petrels (Hydrobatidae).

Blackburn (1962, *Notornis* 10: 42) recorded unusual feeding behaviour of Red-billed Gulls at Gisborne. He suggested that they used beating wing-tips and trailing feet as a kind of net to drive a fish forward until it sought escape by leaping from the water, when it was caught unerringly by the birds. It appeared that the trailing feet also acted as a brake to reduce the birds' speed noticeably. In the Miranda observation there was no beating of wings on the water, but both of Blackburn's suggestions on the effects of trailing feet could apply.

We could not determine what the gulls were taking. It was very small and apparently not connected directly to the myriad squirts. These squirts perhaps were disturbing small animals, which the birds were taking. The gulls were still feeding when we left. Professor J. E. Morton (pers. comm.) told me that the origin of the squirts may have been a bivalve such as *Mactra ovata*.

From 26 December 1980 to 14 January 1981, as on other holidays at Opoutere, Coromandel Peninsula, I watched Red-billed Gulls (L.