difference must account for some of the size range of unsexed individuals.

It remains nonetheless the case that at the great majority of breeding colonies so far studied no large birds have been found. I believe that my finding of breeding large birds at the South Sandwich Islands is significant in that it is the first report for that area, and far removed from any previously recorded.

I have mapped in Figure 1 the locations at which large individuals have been found breeding. References for all locations will be found in my previous paper, and I have now added the South Sandwich Islands. It is apparent that large birds are very widespread, and I do not doubt that more will be discovered as studies are extended into other areas.

My thanks are due to Hasse Nilsson, master of the *Lindblad Explorer*, and to Michael McDowell, expedition leader, for their enthusiasm and persistence, and to Dennis Puleston, resident naturalist on the vessel, for his help and advice.

LITERATURE CITED

COWAN, A. N. 1981. Size variation in the Snow Petrel (Pagodroma nivea). Notornis 28: 169-188.
CROXALL, J. P. 1982. Sexual dimorphism in Snow Petrels Pagodroma nivea. Notornis 29: 171-180.
ISENMANN, P. 1970. Contribution a la biologie de reproduction du Petrel des neiges. L'Oiseau et R.F.O. 40, no. special: 99-134
MOUGIN, J-L. 1968. Etude ecologique de quatre especes de petrels antarctiques. L'Oiseau et R.F.O. 38, no. special: 1-52.
STONEHOUSE, B. 1972. Animals of the Antarctic. The ecology of the far south. Peter Lowe.

A. N. COWAN, 6A Vancouver Street, Red Hill, ACT, 2603, Australia

THE LAYING OF A BROWN KIWI EGG AT THE WELLINGTON ZOO

_____ * ____

On 22 December at 9.11 a.m., I was lucky enough to interrupt our breeding female North Island Brown Kiwi (Apteryx australis mantelli) in the process of laying an egg. She had her back to the double doors that provide access to the breeding burrow, and she was resting on her metatarsi, her body off the ground. She was breathing deeply, the noise quite loud in the confined space of the burrow. As I watched, the egg started to appear, a smooth, flat, white surface steadily being exposed as the cloaca stretched open.

At that point I closed the door again, fearful that my presence would cause her to damage the egg. A few minutes later I realised the importance of the event and returned to the burrow.

At 9.17 she was still on her metatarsi, but her body was orientated slightly to the left and some white mucus was hanging from the vent. The egg was forward under her chest and between her feet. When I left her a minute later she was still breathing heavily.

On 2 January the egg was found to be fertile. It measured 118.4 x 76.6 mm and weighed 382 g.

RON GOUDSWAARD, Wellington Zoological Gardens, Daniell Street, Newtown, Wellington

A CIRL BUNTING IN SOUTH WESTLAND

----*----

While surveying forest birds in South Westland on 18 June 1983, we recorded a female Cirl Bunting (Emberiza cirlus) on Anderson Glen (stream), a tributary of the Jackson River (Cascade State Forest), about 50 km south of Haast.

Cirl Buntings closely resemble Yellowhammers (E. citrinella), a species which we were taking special note of. A previous survey (Coker & Imboden 1979) had found Yellowhammers to be common and widespread throughout South Westland, and yet we had scarcely seen any during three weeks of survey.

The Cirl Bunting was easily approached and was observed on shingle riverbed at an altitude of 30 m a.s.l. in an area dominated by beech forest, riverbed and several areas of semi-developed farmland on river flats. The bird was feeding on bare ground and among introduced grasses and Raoulia tenuicaulis. After several minutes of observation it flew to the top of a silver beech (Nothotagus menziesii).

Cirl Buntings were originally introduced to Otago, Wellington and Stewart Island (Oliver 1955). Presence of the species in the southern North Island has only recently been confirmed (Bull et al. 1978). Falla et al. (1979) reported the species as being rather rare and present in the South Island only east of the Southern Alps in North Otago, Canterbury, Marlborough and Nelson. The Cirl Bunting was not introduced to Westland and this appears to be the first record of it on the West Coast of the South Island. Its presence at the most southern limit of road access on the Coast and so close to the forest leads us to speculate that the species may be widespread in the region but has been overlooked. The species is generally considered to be an inhabitant of dry open farmlands. The only other record of the species from forest is from Resolution Island on the western coast of Fiordland (Oliver 1955).

LITERATURE CITED

BULL, P. C.; GAZE, P. D.; ROBERTSON, C. J. R. 1978. Bird distribution in New Zealand. A provisional atlas 1969-1976. Wellington: OSNZ.

COKER, P. M.; IMBODEN, C. 1979. Wildlife values and wildlife conservation in South Westland. FSU report no. 21. NZ Wildlife Service, Wellington.

FALLA, R. A.; SIBSON, R. B.; TURBOTT, E. G. 1979. The new guide to the birds of New Zealand and outlying islands. Auckland: Collins.

OLIVER, W. R. B. 1955. New Zealand birds. Wellington: Reed.

COLIN F. J. O'DONNELL and PETER J. DILKS, Wildlife Service, Department of Internal Affairs, P.O. Box 1308, Christchurch