Tarsus (mm)	M.t.c. (mm)	Claw (mm)	Culmen (mm)	Weight (gm)

# TABLE: Relationship Between External Measurements and Sex of Wekas

	Tarsus (mm)	M.t.c. (mm)	Claw (mm)	Culmen (mm)	Weight (gm)
33	59 - 68	62 - 72	12.5 - 17	47 - 50	<b>532</b> - 1053
22	54 - 58	62 - 65	12 - 15	42 - 44	<b>382 - 101</b> 0
ਰੈ	62.8	66.4	14.8	37.8	912.7
\$	57.4	63.1	13.8	43.1	698.7
	99	(mm) ♂♂ 59 - 68 ♀♀ 54 - 58 ♂ 62.8	(mm)         (mm)           ♂♂         59 - 68         62 - 72           ♀♀         54 - 58         62 - 65           ♂         62.8         66.4	(mm)         (mm)         (mm)           & 59 - 68         62 - 72         12.5 - 17           \$\partial 5  4 - 58         62 - 65         12 - 15           \$\partial 62.8         66.4         14.8	(mm)         (mm)         (mm)         (mm)           \$\delta \begin{subarray}{cccccccccccccccccccccccccccccccccccc

#### SUMMARY

Wekas may be sexed with a reasonable degree of accuracy by measuring culmen length and body weight. Culmen lengths in adult males commonly range from 44 mm to 51 mm and in females from 42 mm to 44 mm. Males usually weigh between 900 gm and 1000 gm and females between 670 gm and 806 gm. Juvenile birds may be confused with adult females but are usually distinguishable by the dark colour of their eyes and legs.

#### REFERENCE

Williams, G. R., and Miers, K. H., 1958: A Field Method of Sexing the Swamp-hen or Pukeko. Emu, 58: 125-127.

# \_\_\_\_ <del>\*</del> \_\_\_\_ SHORT NOTES

## SOME NOTES ON THE BIRDS OF NORFOLK ISLAND

Nine days from 29/9/62 were spent on Norfolk Island and the following notes are the result of this visit. As little has been published recently, these notes may have value when a more complete survey of the natural history of Norfolk Island and its two outliers, Phillip and Nepean, is made.

Norfolk Island to-day is much changed from what it was when discovered by Captain Cook in 1774. Most of the flourishing land-birds belong to introduced species. A few stragglers arrive from Australia. Petrels no longer nest in vast numbers on the main island; but gannets (or boobies), terns and noddies are still plentiful.

Nepean Island is perhaps the least changed; but even there an introduced ice-plant thrives on the top of the island, its pink flowers adding a touch of colour among the white Masked Gannets at their nests. Phillip Island is denuded of forest.

## SPECIES LIST

MASKED GANNET (Sula dactylatra) — Nepean Island, a mile off the south coast, was visited on October 6. On the flat top among low vegetation three hundred were counted; each of the one hundred and fifty pairs was with a chick ranging from a day old to nearly fully fledged. One pair had two infertile eggs. One chick only is reared. A breeding period from August to December is indicated. TURNSTONE (Arenaria interpres) \_ On October 3, eight were seen on the beach inside the lagoon, Emily Bay, and later the same birds were feeding in swampy pasture near the Administrator's residence. EASTERN GOLDEN PLOVER (Pluvialis dominicus) \_\_ Three birds, almost certainly of this species, were seen on 3rd October associating with Turnstones and Godwits in Emily Bay.

BARTAILED GODWIT (Limosa lapponica) \_\_\_ 22 were counted feeding in company with Turnstones and Golden Plover in the swampy pasture near the Residency just inland from the beach, Emily Bay. In view of the date it seems probable that they were resting on the migratory flight to New Zealand.

RED-BILLED GULL (Larus novaehollandiae) \_ One was seen in flight

- with some White-capped Noddies off Emily Bay on October 2. SOOTY TERN (Sterna fuscata) ..... Known locally as the Whale Bird. It nests in large numbers on Nepean Island. On my visit on October 6 only six birds were seen, apparently the vanguard of the thousands that are described as nesting there by the end of that month. Large quantities of eggs are gathered by Norfolk Islanders. A closed season has been gazetted from November, 1962, to October, 1963.
- WHITE-CAPPED NODDY (Anous minutus) \_ The breeding season of this bird was about to begin, and small numbers were seen in company with White Terns flying in from the sea in the evening. On Nepean Island four or five were observed. Being a tree-nesting species, it would not nest there.

WHITE TERN (Gygis alba) \_ This species was common, just starting to mate, and selecting nesting sites. A few weeks later, I would have seen the eggs in their precarious position on the horizontal branches of the endemic Norfolk Island Pines.

GREY NODDY (Procelsterna cerulea albivitta) \_ I saw three nests on a cliff on Nepean Island on October 6. The birds were apparently sitting.

WHITE-FACED HERON (Ardea novaehollandiae) \_\_\_ Four were observed feeding on swampy pasture, and resting on fence posts near the Residency, Kingston.

STRAW-NECKED IBIS (Threshiornis spinicollis) \_ A single specimen was observed in company with the White-faced Herons. This seems to be a new record for Norfolk Island. Evidently a straggler from eastern Australia where it is common.

GREY DUCK (Anas superciliosa) \_ On Sept. 30 three ducks of this species were seen on swampy land near Kingston and again on Oct. 4. They seemed to be darker than New Zealand specimens, so probably were examples of the Australian sub-species rogersi.

HARRIER (Circus approximans) \_ On 4th Oct. a single example, almost certainly of this species, was observed in flight.

KINGFISHER (Halcyon sanctus) — Heard on most days, and seen on two. It is not common.

CRIMSON ROSELLA (Platycercus elegans) \_ This Australian species was present in sparse numbers. In spite of being shot because of its liking for fruit, it has survived, while the Norfolk Island Parakeet (Cyanoramphus cooki) is extremely rare or extinct. It is probably self-introduced, or may have been liberated in the early period of the island's history.

#### INTRODUCED BIRDS

STARLING (Sturnus vulgaris) \_ This is the commonest bird on the island, and was seen everywhere I went.

BLACKBIRD (Turdus merula) \_ A few were seen every day.

SONG THRUSH (Turdus ericetorum) \_ Only a few were seen.

HOUSE SPARROW (Passer domesticus) \_ A common bird to be seen near human habitation all over the island. CALIFORNIAN QUAIL (Lophortyx californica) \_ Small numbers noted.

### REFERENCES

Gregory M. Mathews: The Birds of Norfolk and Lord Howe Islands, 1928.

A. F. Basset Hull: The Birds of Lord Howe and Norfolk Islands. Proc. Linn. Soc. N.S.W. Vol. XXXIV, 1909.

Tom Iredale: Notes on the Birds of Lord Howe and Norfolk Islands. Proc. Linn. Soc. N.S.W., Vol. XXXV., 1910.

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# NOTES ON BIRDS ON RUAPUKE ISLAND, FOVEAUX STRAIT

Ruapuke Island, in the eastern approaches of Foveaux Strait, was visited between 20th and 24th February, 1963, in the course of geological field work, and some scattered observations on the birds seen during this visit are recorded here. These notes are sketchy, and it is hoped that they can be augmented by more detailed observations in the future. Most of the geological work was of necessity confined to the shore-line, and unfortunately the small area of bush remaining was not visited.

Ruapuke covers about 3,400 acres, and like most of the small islands in Foveaux Strait is low-lying: the highest point is only 140 ft. above sea level. At the present time only one land-owner, Mr. Alfred Topi, lives permanently on the island. Except for a relatively small area of bush in its central part, the island comprises open scrub-land, low-lying swampy areas with much *Phormium tenax*, and tussocky and grassed areas used for grazing about 3,000 sheep. The coast-line is irregular and indented, low rocky cliffs alternating with fine dune-backed beaches. Of the latter, several are separated by sandy spits from small fresh or brackish lagoons.

According to Mr. Topi, a few Muttonbirds (P. griseus) still breed on Ruapuke, but they are reported to be much more numerous on the nearby small islands, including the Hazelburgh group, three miles south-south-west of Henrietta Bay. Red-billed and Black-backed Gulls were constantly seen, with a small number of White-fronted Terns. A single heron, probably a Reef Heron, was seen in the distance, perching at the edge of cliffs on the eastern side of the island.

Grey Ducks, Black Swans, and Canada Geese are reported by Mr. Topi to come over to the lagoons on Ruapuke from Waituna Lagoon, 12 miles to the north, during the shooting season.

Pairs of Black Oystercatchers were seen on most of the beaches, and a single Pied Oystercatcher at Henrietta Bay. A few Pied Stilts were present beside the lagoon (Waitokariro) behind Henrietta Bay. Banded Dotterels find ideal nesting sites on areas of sandy alluvium at two localities, namely Waioihe Bay (near North Head) and the spit at Tauatemaku Lagoon, and many birds were seen flocking at the latter place.

Wekas, presumably the same sub-species as that on Stewart Island, are present over the whole island. A single Harrier was seen. Parakeets, probably Red-fronted, were twice observed flying over open scrubby ground, while Bellbirds were present in the plantation at Mr. Topi's house at Henrietta Bay. Mr. Topi mentioned that Bush Pigeons are also present. Almost certainly the numbers of birds, such as parakeet and pigeon, vary considerably throughout the year, with movement to and from Stewart Island and some of the other small islands in Foveaux Strait.

The Pipit was commonly seen in all areas visited, and is probably the most abundant land bird. Apart from small flocks of Starlings, introduced passerine birds appeared to be rare.

W. A. WATTERS