NOTES ON THE SNARES ISLAND SNIPE

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During the period 2 January - 9 February 1967, I took part in a Canterbury University Expedition to the Snares. The purpose of the expedition was to undertake a preliminary ecological study of the main island in the group, North-east Island. Time permitted me to make some brief observations on the habits of the Snares Island Snipe *(Coenocorypha aucklandica huegeli)*. The paucity of information on this species warrants these observations being recorded.

HABITAT

The dominant vegetation over the island is *Olearia lyalli* interrupted by areas of *Senecio stewartiae* and *Stilbocarpa robusta.* In places the *Olearia* canopy reaches a height of 20 - 30 feet but in general averages 6 - 10 feet. The centre of the island is covered by a pakihi-type swamp and the main slopes by tussock, *Poa foliosa* and *P. astonii.* My observations were confined to an area adjacent to the hut, near the boat harbour. Here, the *Olearia* was clumped and indispersed with *Senecio* to give open patches and dense low cover.

Snipe were observed over most of the island, but seemed to prefer areas similar to the study area. Although the latter was subjected to considerable human interference, it held four established territories, and numerous sightings of other birds were made.

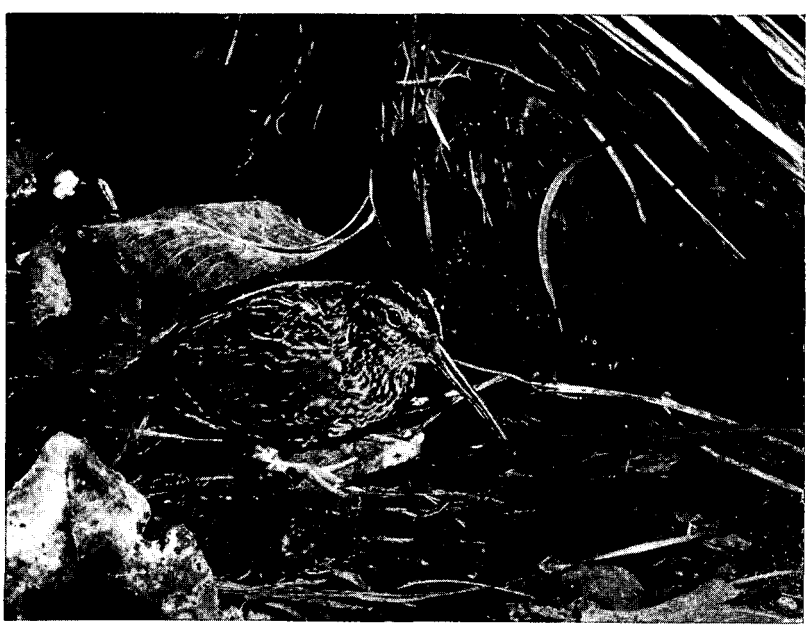

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Plate XXXVII — Snares Island Snipe.

FEEDING

Stead (1948) states, " Their food apparently consists chiefly of worms — this is the only food I saw them take — but they doubtless also eat the white maggots from the ground . . . ."

The droppings of four birds (3 adult, 1 juvenile) were collected and analysed. The results were (according to frequency of occurrence):—

Food Type	*Adult*	*Adult*	*Adult*	*Juvenile*
Spider	1			
Carabid beetle	1			
Earwig	1		6	1
Scarabid beetle	2			
Amphipod remains	75% by vol.	90% by vol.	75% by vol.	50% by vol.
Lepidoptera larvae		2	1	
Mite			11	
Weevil imago			2	

Unfortunately, the material was not searched for earthworm setae so that Stead's observation cannot be confirmed from this small sample.

Feeding occurs throughout the day but was more intense at morning and evening. The search for food was confined to forest fringes and areas of tussock and scattered scrub. Very few were found under the *Olearia* canopy except near isolated patches of grass and *Hebe elliptica.* Stead reported Snipe always to be found on the outskirts of penguin colonies. However, the number and distribution of these colonies are such that Snipe feeding along forest margins inevitably come into contact with them.

Snipe typically probe for food by pushing the bill deep into the soil or tussock bases, pausing as if to feel for insect movement. Probing of an area can be very intensive — 54 probes being counted in an area 12" x 12" in peat of medium hardness. Despite the fact that probing was the only method of feeding seen, it is interesting that the species identified in the faeces were all surface-dwelling insects.

NESTING AND BREEDING BEHAVIOUR

My observations began too late in the year to find incubating birds or nests. Stead found several nests; all were deep cups lined with grass and sited in the centre, or at the base, of tussock clumps. Richdale (1948) found them " on the ground under some solid vegetation or hollow end of a solid tree trunk."

Nesting probably starts in early November and laying extends into December, for well-grown young were seen as early as 10 January 1967. There may be considerable variation in the date at which egg-laying begins from year to year, for Stead considered egg-laying to begin in December. The size of young encountered during my stay indicates that breeding must have begun considerably earlier than this.

The species is strongly territorial — at least during the breeding season. All birds in the observation area had very well-defined territories which they defended fiercely. Fighting involved vigorous feather pulling — usually of back and breast, and this was associated

with wing flapping. Following such clashes, the territory holder was heard to utter a low vibrant " chup chup."

The fledgling usually accompanies the parent on feeding excursions. However, never more than one chick was seen with a parent — suggesting, if the recorded clutch size of two is substantiated, that each parent accompanies one of the chicks. Parents continue to feed the chick until it is reasonably well feathered. The chick also forages for itself.

SEX DIFFERENCES

Buller (1905) when referring to *C. aucklandica* states, " In the four examples of this rare bird (two males and two females) now in my collection, the sexes are exactly alike in plumage but the general coloration is much darker in one pair than in the other. The lighter-plumaged birds were obtained at the Auckland Islands and of these the female has a bill fully 0.25 inches longer than in the male. [Elsewhere in the same work, Buller states that this is usual in Snipes.] The dark-coloured birds, which again are precisely alike in plumage, came from the Snares . . . ."

To follow up this point, several live birds, and Dominion Museum study skins were measured. Details are given in Table 1. From this small sample, no clear pattern emerges — the ranges of measurements of each sex overlap.

JUVENILES

Six juveniles were caught and colour-banded to allow individual recognition. Measurements of some of these birds on recapture gave some indications of growth rates and these are detailed in Table 2.

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Plate XXXVIII — Chick of Snares Island Snipe.

TABLE 1
MEASUREMENTS OF SEXED SNIPE (ADULTS)

Sex	Specimen	Weight (gm.)	Culmen (mm.)	Wing (mm.)	Tarsus and Midtoe and Claw (mm.)
M	Live	110	54.0	–	
M	Live	125	54.0	109	
M	Live	120	53.0	112	
M	DM 711	–	54.0	102	23.0 (T) + 32.5 (MTC)
M	DM 5617	–	50.5	102	24.0 (T) + 30.5 (MTC)
M	DM 1523	–	50.0	104	23.5 (T) + 31.5 (MTC)
F	Live	120	52.0	109	
F	Live	–	52.0	108	
F	Live	100	53.0	110	
F	Live	90	54.0	110	
F	DM 712	–	56.5	106	24.5 (T) + 32.5 (MTC)

Females were taken to be those with large brood patches, expanded cloacas or both.

Wing measurements were of the flattened wing from the carpal joint.

TABLE 2
MEASUREMENTS OF JUVENILES

Specimen	Date	Weight (gm.)	Culmen (mm.)	Wing (mm.)	Tarsus (mm.)	Mid Toe and Claw (mm.)
1	10/1/67	37	23.0	52.0	–	–
„	3/2/67	73	44.4	100.0	28.3	32.5
2	10/1/67	72	39.0	91.0	–	–
„	4/2/67	96	47.8	103.0	28.7	33.2
3	12/1/67	90	45.0	104.0	–	–
„	24/1/67	92	48.4	106.0	29.2	32.2
4	15/1/67	37	25.0	43.0	–	–
5	15/1/67	80	37.0	79.0	–	–
6	24/1/67	51	31.5	65.0	25.5	30.5
„	7/2/67	63	33.4	92.0	28.6	32.1

GENERAL HABITS

Stead reported the species to be reluctant to fly during daytime and then only over distances of a few yards. My observations do not support this generalisation. When disturbed during the day,

birds would often take to wing and some flew distances of several hundred yards. These birds generally returned to their territories quickly.

Those scared in the company of chicks seldom flew — instead the typical " broken-wing " distraction display was performed.

The species is very active at night, and it is during this period that the bulk of feeding is done.

ACKNOWLEDGEMENTS

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SHORT NOTE

DO KIWIS LIVE NEAR STREAMS ?

Recently browsing in the library, I noticed a comment by Hartman and Shorland. They report that much of the skin fat of a Kiwi, *Apteryx australis mantelli,* was of C20 unsaturated fatty acids. This fat would have been derived from aquatic fauna and showed that this Kiwi frequently fed from streams.

My experience with the Great Spotted Kiwi, *A. haasti,* adds weight to this result. In October 1958 I stumbled on a Great Spotted Kiwi nest. This nest was under an avalanche boulder about three yards from the Edwards River and five yards inside the forest from the bushline. Often I have heard these Kiwis when at the Edwards Hut. An especially close bird may be heard calling by the stream at the top of the fan behind the hut, which is at the bushline. Probably its nest is under the moraine on the ridge above this fan. For several years I sought to find this nest without success.

This Kiwi is common near the rivers and by the bushline in the Bealey and Mingha Valleys, Arthurs Pass National Park. Deeper within the forest it is found near pakihis, on roche-moutonnes across the valley floor or on the peat bogs between lateral moraines left during the Ice Age. In the Grey District some pakihis are on the very barren soils formed from weathered Brunner formation rock. Great Spotted Kiwis are found in such places.

By Kelly's Hut at the junction of Kelly's stream and the Otira River, I have heard a different Kiwi. The forest here is of rimu. By negative inference I judge this Kiwi to be the South Island Kiwi, *A. australis australis.*

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— J. R. JACKSON