

# THE AUCKLAND ISLAND RAIL

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## ABSTRACT

During a trip to Adams Island in the Aucklands group in November-December 1989, 5 Auckland Island Rails (*Rallus pectoralis muelleri*) were caught and 43 heard calling. Several hundred rails are probably on Adams Island, where they are widespread in vegetation that provides good cover near ground level. They were not found on other islands in the Aucklands group, though they may occur on Disappointment Island, which was not visited.

The calls of Auckland Island Rails are recognisably similar to those of the same species in Australia but easily distinguished from those of other Auckland Island bird species. During November and December rails readily responded to tape recordings of their own calls, and they called, both spontaneously and in response to tapes, throughout the daylight hours.

Two nests were found, one active with two eggs and one old. Chicks were heard at two places. Auckland Island Rails probably lay in October and November, and their nests are built in thick vegetation dominated by tussocks and sedges.

Auckland Island Rails seem consistently smaller than Lewin's Rail (*R. pectoralis*) from south-eastern Australia, and their subspecific status is appropriate.

## INTRODUCTION

The Auckland Island Rail *Rallus pectoralis muelleri* (Rothschild) was previously known from only three specimens and fewer than 10 sightings.

Falla (1967) reviewed its taxonomic and conservation status after the last specimen was collected in 1966, but was not conclusive on either subject. He noted that rails were on Adams Island and perhaps on Ewing Island. He thought that cats on the main Auckland Island had probably eliminated rails, although the rails had probably been there last century (Musgrave 1943). During the summer of 1972-73 rails were searched for on Adams, Enderby and Ewing Islands by Wildlife Service staff. Only one possible sighting was made on Adams Island (Rod Russ, unpublished diary 1972/73, Auckland Island Expedition) and Williams (1975) concluded:

It would be rather surprising if the species still exists on Ewing or Enderby Island, but I suspect that it is still present – probably in reasonable numbers – on Adams Island. No particular search was made for it on Auckland Island itself as conditions generally seem most unsuitable for it to have persisted there. There is a remote possibility it may still exist on other islands in the group from which predatory and grazing animals are absent.

Falla (1967) noted that the rail on Adams Island is perhaps on average smaller, has softer plumage, and has proportionately smaller wings than the eastern Australian subspecies of Lewin's Rail (*R. p. pectoralis*). He concluded:

With some reservations...its relationships would seem to be best expressed sub-specifically – *Rallus pectoralis muelleri* (Rothschild).

Although the bird caught in 1966 was kept at the Mt Bruce native bird reserve for 9 years (Williams 1985), little was learned of its biology, and nothing is known of the biology of birds in the wild.

The species is little better known in Australia, where it is most often found in dense vegetation near or in water, is secretive, and rarely flies (Gilbert 1936, Leicester 1960, Chapman & Clayton 1977). On some offshore islands in Australia it lives in densely vegetated but dry habitats (Milledge 1972).

The authors and Lou Sanson (Department of Conservation, Invercargill) and Andris Apse visited Adams Island in the Auckland Islands group between 2 November and 7 December 1989 specifically to search for the Auckland Island Rail. This paper describes the "rediscovery" of the Auckland Island Rail on Adams Island and our investigation of its distribution, habitat requirements, breeding biology, behaviour and taxonomy.

### METHODS

Three methods were used to find and study rails: trapping, radio-telemetry and listening for responses to taped calls. Rail sign, such as footprints, could not be used because rail footprints are very like those of Auckland Island Snipe (*Coenocorypha aucklandica aucklandica*), which are common on some of the islands we searched for rails.

**Trapping:** Rails were caught in tunnel traps placed in gaps in 1 m high fences that we erected in areas which looked to be suitable rail habitat or in which we had heard rails. In most places we erected 60 m of fence and placed traps in gaps every 10 m. A trap consisted of a tunnel of nylon mesh on an aluminium frame, with a door at each end. A trip wire halfway along the tunnel released the doors, which were pulled shut by rubber bands. We checked traps early in the morning, just after dark in the evening, and about every 4 hours during the day. At two places we tried to attract rails into the traps by playing taped calls.

Bill depth and bill, wing, tail, tarsus, and mid-toe length of captured birds were measured by the methods of Gurr (1947). The bill, tarsus and toe measurements were made to the nearest 0.1 mm with vernier calipers, and the wing and tail to the nearest 1 mm with a ruler. Tarsus measurements were made diagonally (see Gurr 1947). Birds were weighed to the nearest gram with a Pesola spring balance.

**Radio telemetry:** Small 3 g radio transmitters, supplied by DSIR, were attached to the plumage of two rails, which were then regularly tracked to learn about their home ranges and the types of vegetation in which they foraged.

**Taped calls:** Calls recorded on Adams Island in 1966, and a variety of calls of Lewin's Rail from Australia, were initially used to try to induce rails to call. These were unsuccessful. Later in the trip we used our own recordings of Auckland Island Rail. These calls were initially used haphazardly, but during the trip we learned to recognise likely rail habitat and played tapes mostly at these places.

## DISTRIBUTION, HABITAT AND ABUNDANCE

### Diary of events

On 2/11/89 and 7/11/89 two possible rail sightings were made in poor light at Magnetic Bay. Between 2/11/89 and 20/11/89 at several places we heard calls that we initially thought were made by snipe but later found to be made by rails.

The first rail (rail 1) was caught at Magnetic Bay on 10/11/89 after 8 days' trapping (40 trap days). During this time five traps had been placed at five locations in forest and scrub behind the beach. A transmitter was attached to this bird, but it came off after 30 hours and we gained little information on its movements and habitat.

Extensive searches of two areas of wetland behind Maclaren Bay on 5/11/89 and 9/11/89 revealed an old nest that looked like a rail nest. Four traps were erected in one wetland, left unset for 2 days, then set. On 16/11/89, after 2 days (8 trap days) a bird (rail 2) was caught and a radio transmitter put on it. This bird was followed to its nest, which contained two eggs which were being incubated. On 17/11/89 another rail (rail 3) was caught within 15 minutes of rail 2 arriving at the nest. Rail 3 was probably the mate of rail 2.

Rail 2 was followed (by means of the transmitter) at irregular intervals until we left the island.

On 20/11/89 a microphone was placed on the ground near the nest and recordings made of rails calling near the nest. These calls were later played near where rail 1 had been caught in Magnetic Bay. A rail called loudly in response and was seen. Further, and better, calls were recorded.

From 20/11/89 until we left the Auckland Islands we played taped rail calls at many places on Adams Island, the southern end of the main Auckland Island, small islands in Carnley Harbour, and on Ewing Island in Port Ross. Peter Moore and Peter McClelland also played tapes on Rose and Ewing Islands.

On 22/11/89 the rail nest was found abandoned and the eggs were found, holed and on the ground near the nest. Both eggs were fertile. The eggs have been deposited in the National Museum, Wellington.

On 24/11/89 we found a concentration of rails in a high basin above Fly Harbour, at which we set four traps on 25/11/89. On 28/11/89 we tried to attract rails into the traps using taped calls. We caught one bird (rail 4).

On 29/11/89 we erected five traps in the second wetland in Maclaren Bay. The traps were set on 3/12/89 and a bird was caught in the evening (rail 5).

### Habitat and distribution

Figure 1 shows the places on Adams Island where rails were seen or caught, and the number of rails detected at each place. Figure 1 also shows the places on the main Auckland Island and islands within Carnley Harbour where rail tapes were played without success. Rail tapes were also played on Rose and Ewing Islands but without response.

**Adams Island:** Adams Island (10 000 ha) is the second largest island in the Aucklands group. It has no introduced mammals and is one of the least

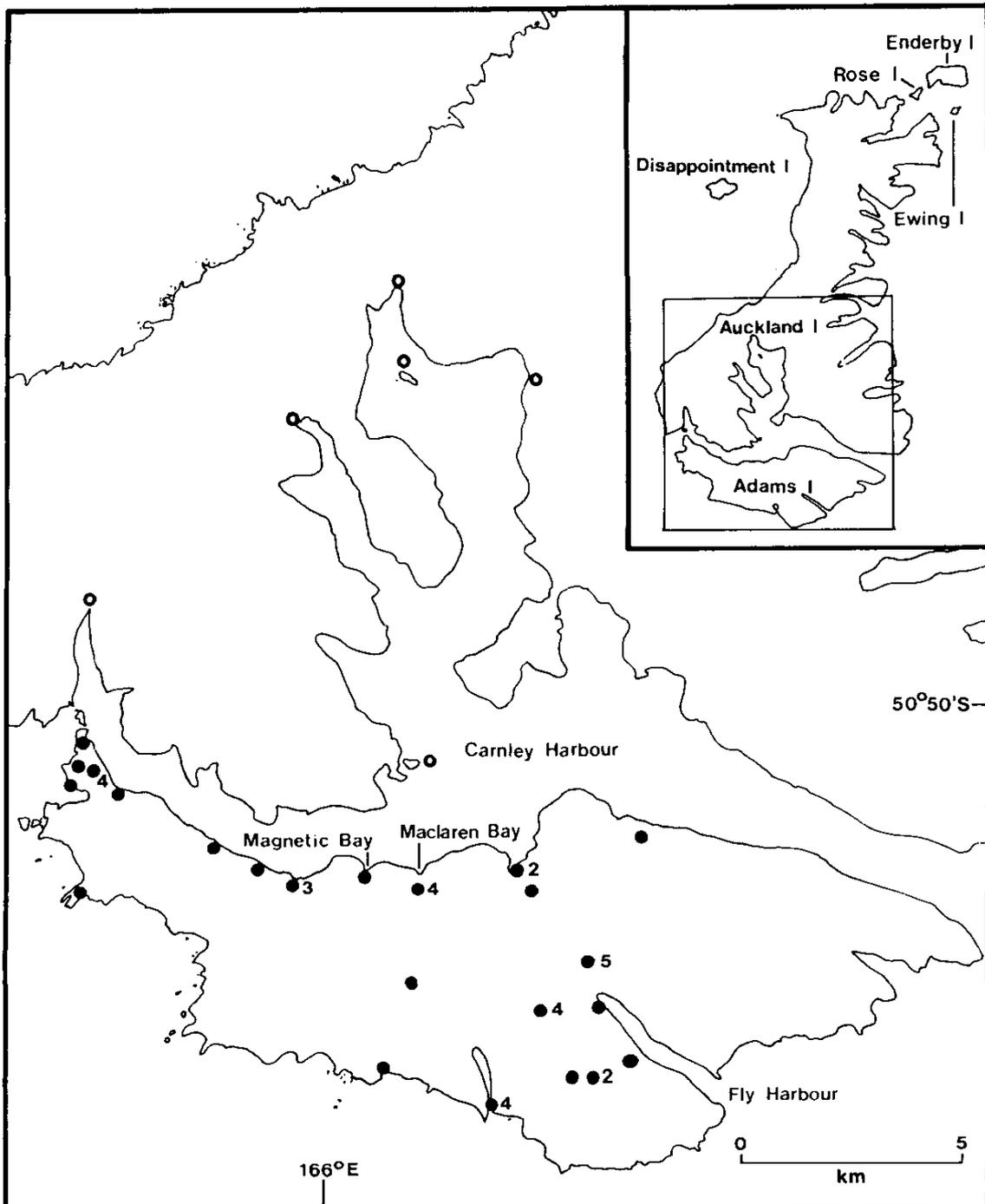


FIGURE 1 — Places where Auckland Island Rails were found on Adams Island (closed circles). Numbers show where more than one bird was detected. Open circles show places in Carnley Harbour where rails were searched for but not found.

modified subantarctic islands. It does, however, have New Zealand Falcons (*Falco novaeseelandiae*) and Brown Skuas (*Catharacta skua lonnbergi*), both of which are possible predators of rails. The island has a 20 km long central ridge, running east-west, which rises to 705 m at its highest point. On the sheltered northern slopes of the island the land rises steeply from Carnley Harbour to the ridge top and there is a narrow belt of southern rata (*Metrosideros umbellata*) forest up to about 200 m a.s.l. Above the forest there are vegetation zones dominated by shrubs, then tussock, and on the highest most exposed parts of the island, there is open fellfield. On the more exposed

southern coasts of the island there is little rata forest and much of the coastline comprises cliffs rising up to 300 m. Above the cliffs tussock and shrub covered slopes rise gently to the ridge top.

Rails were found in four types of vegetation on Adams Island:

1. Coastal herbfield dominated by various combinations of the megaherbs *Pleurophyllum criniferum*, *P. speciosum*, *Anisotome latifolia*, *Stilbocarpa polaris* and the sedge *Carex trifida*. This type of vegetation was just above high water mark at many places around the island.
2. Cliff herbfield consisting of vegetation very like the above but without *Carex trifida*, and with some snow-grass (*Chionochloa antarctica*) and some *Bulbinella rossii*. This vegetation was on steep slopes below coastal cliffs on the southern side of Adams Island.
3. *Carex* grassland dominated by *Carex appressa* and including *Blechnum procerum*, *Chionochloa antarctica*, *Pleurophyllum criniferum* and low-growing woody shrubs of weeping mapou (*Myrsine divaricata*) and two small-leaved coprosmas (*Coprosma cuneata* and *C. ciliata*). This vegetation occurred from sea level up to about 250 m above sea level.
4. Tussock-herbfield consisting of *Chionochloa antarctica*, *Pleurophyllum criniferum*, *P. speciosum*, *Anisotome antipoda*, *Bulbinella rossii* and some woody shrubs of *Myrsine divaricata*, *Coprosma ciliata* and *C. cuneata*. The composition of this vegetation varied from being dominated by tussock to being dominated by megaherbs. At high altitudes the woody shrubs were missing. This vegetation was at 300 - 500 m a.s.l.

Although all rails were found first in the above vegetation types, the two birds on which we put transmitters also ventured into a fifth type:

5. Scrubby forest with a 2.5 m high canopy of southern rata, haumakoroa (*Pseudopanax simplex*), *Myrsine divaricata*, and *Dracophyllum longifolium* growing over patches of dense *Carex appressa* and *Blechnum procerum*.

All five vegetation types grew on damp or wet ground and had a dense canopy (or subcanopy in type 5) about 1 m off the ground and open "runways" beneath.

Our not finding rails in vegetation type 5 may just be because we rarely ventured into this almost impassable vegetation to play tapes.

We searched the eastern and south-western parts of Adams Island before we knew what rail calls sounded like, and we found no rails there. However, elsewhere on the island we later found rails wherever there was suitable habitat and so rails are probably in suitable habitat in the eastern and south-western parts of Adams Island as well.

**Abundance:** We detected a total of 43 rails at 23 places (see Figure 1), but at many places where we detected only one rail there must have been far more. Suitable habitat probably occupies as much as 10% of Adams Island, i.e. about 1000 ha, and the island probably has several hundred rails.

**Auckland Island:** Falla (1967) attributed the lack of rails on the main Auckland Island (51 000 ha) to the presence of cats, but in Australia Lewin's Rail survives in the presence of a wide range of predators. Cats may not

have been the sole cause of the disappearance of rails from the main Auckland Island and pigs, which are both predators and habitat modifiers, may also be important. Pigs have almost eliminated the megaherbs from the main Auckland Island and thus vegetation types 1, 2 and 4 no longer exist there. The areas we searched for rails on the main Auckland Island had vegetation type 3 but they were highly modified and provided much less cover than unmodified vegetation type 3 on Adams Island. Pigs had made tracks through it and rooted areas had grown back as a short sward.

The two small islands (less than 20 ha) in Carnley Harbour that we visited, Figure of Eight and Masked Island, were extensively used by sealions (*Phocarctos hookeri*) and breeding petrels and had only very small areas of dense cover. We were not surprised at our failure to find rails on these islands. **Ewing Island:** Our failure to find rails on Ewing Island (57 ha) is less conclusive. There are three reports from Ewing since 1942 (Falla 1967), although no experienced ornithologist has actually seen a rail there. Even Falla only heard "...nocturnal calls... distinguishable from those of ducks and snipe". It is possible that rails have never been on Ewing.

Another possibility is that rails have disappeared or declined to very low numbers on Ewing. The only likely rail habitat on Ewing Island today is the narrow coastal strip of *Poa foliosa*, *Carex trifida* and *Silbocarpa polaris* which is probably less than 10 ha. This vegetation is criss-crossed with tracks made by sealions and nesting seabirds and provides less cover than any of the vegetation types in which we found rails on Adams Island. Furthermore the ground underneath the vegetation was well drained, unlike the ground under suitable vegetation on Adams. This habitat therefore would probably support few, if any, rails.

Rail habit may not always have been so limited on Ewing. Godley (1965) suggested that there was once a central stand of rata surrounded by *Poa litorosa* tussock-grassland and that the grassland has been replaced by *Olearia lyallii* forest. Godley described the development of *Olearia* forest, which did not reach its present extent until well into this century. It is likely that *Poa litorosa* tussock-grassland makes better rail habitat than the present vegetation, and that the rail declined or disappeared with the spread of *Olearia lyallii* on the island.

**Rose Island:** Though we detected no rails on Rose Island (77 ha) the search was made before we had learned to recognise good rail habitat and before we knew much of rail behaviour. Rose Island has a large area of *Poa litorosa* tussock-grassland which may be suitable for rails. However, until the 1920s cattle were on the island (Taylor 1971) and may have made the vegetation unsuitable for rails. The continued presence of rabbits on the island may prevent the vegetation recovering to a state suitable for rails.

**Other islands:** We did not search Enderby Island (688 ha) for rails because grazing by cattle and rabbits has reduced any likely rail habitat to a sward. Early descriptions of the vegetation of the island (see Taylor 1971) indicate that good rail habitat used to be there.

Other islands in the Port Rose area are probably too small to have rails.

The best hope for finding rails is Disappointment Island (276 ha). Disappointment has no introduced mammals and is probably the least

modified of all the islands in the Aucklands group. The vegetation on much of the island is probably suitable for rails because it is very similar to tussock-herbfield on Adams Island (Cockayne 1909), in which rails are common.

### BREEDING

Two nests were found in one of the wetlands at Maclaren Bay. One was an old nest; the other was in use when found on 17/11/89. The active nest was being incubated by a "transmittered" bird when we found it: it was certainly a rail nest. We believe the old nest was a rail nest because no other birds on Adams Island are likely to build such nests.

The old nest was built among *Carex appressa*, was 16 cm deep and was protected above by a canopy of interlaced *Carex*. The outside diameter of the nest was 14 cm and the inside diameter 7 cm. The bottom of the nest was 14 cm off the ground. The active nest was built among *Chionochloa antarctica*, was only 7 cm deep and was sheltered above by overhanging *Chionochloa*. The top of the nest was 20 cm off the ground and the nesting material went right down to the ground. The nests were built of *Chionochloa* and/or *Carex* and both had well-defined entrance runways. The only nests likely to be confused with rail nests on Adams Island are those of snipe. We found no snipe nests for direct comparison, but on the Snares, snipe nests are shallower, have a greater internal diameter, and do not have canopies or entrance runways (Colin Miskelly, pers.comm.).

The active nest contained two eggs. As the eggs were being incubated when found, the clutch was probably complete: rails do not start incubating until they complete their clutches. On 22/11/89, when the eggs from this nest were found broken on the ground, there were only small embryos and a few blood vessels in each egg. These eggs were probably laid in mid-November.

Twice, on 24/11/89 and 26/11/89, we heard the squeaking of rail chicks following adult rails that had been attracted to taped calls. Given a 20 day incubation period – Lewin's Rail in Australia incubates its eggs for 20 days (Chapman & Clayton 1977) – these chicks must have hatched from eggs laid in late October or early November.

The eggs were weighed and measured on the day after the nest was found but 5 days before it was abandoned; they had probably been incubated for less than 5 days. Their dimensions were 35.1 × 26.5 and 32.8 × 24.2 mm and they weighed 12.0 and 8.5 g respectively. The shapes of the two eggs were noticeably different; the small egg was proportionately longer and thinner than the large one. The eggs were cream coloured with brown, red-brown and pale grey spots and blotches concentrated at the blunt end.

If this clutch is typical, Auckland Island Rails have smaller clutches and proportionately larger eggs than Lewin's Rail, which lays 4-6 eggs of the same size as those of the smaller Auckland Island Rail (Chapman & Clayton 1977). The nests of Lewin's Rail are larger, but otherwise similar (Chapman & Clayton 1977). Cody (1966) noted small clutch sizes on small temperate oceanic islands and attributed this to their stable environments. Certainly the Auckland Island environment is likely to be more stable, though colder, than that of Australia.

## BEHAVIOUR

Auckland Island Rails are very secretive, and the vegetation they live in would make even confiding birds hard to see. Only one rail was seen outside a trap, and it remained in view for less than a second. Deductions about Auckland Island Rail behaviour can be made only from the trapped birds, birds that were heard calling either spontaneously or in response to tapes, and birds with transmitters that we were able to follow but not see.

### Activity patterns

Rails were heard calling between 0500 hours (New Zealand Standard Time) in the morning and about 2200 at night, i.e. between dawn and about half an hour after dark. Rails may have called earlier when we were asleep, but they probably did not call later as we were often awake after they had stopped calling.

The two rails with transmitters were followed on a number of occasions between 0800 and 2200 and, except when rail 2 was on its nest, their radio signals always varied in strength, indicating that they were active.

Three of the five birds caught were undoubtedly caught during daylight hours. The fourth was found in the trap at 0745 in the morning after the trap had been set all night, and another was found at 2200, the trap having been previously checked at 1800 hours. Both these birds looked to have been recently caught; their plumage gets damaged when they remain in traps for a long time. Thus all five birds were probably caught during daylight hours, even though traps were left set overnight.

Auckland Island Rails are clearly active from just before sunrise till just after sunset. They do not call after dark but may stay active.

### Calls

Auckland Island Rails made a variety of calls but, being unable to see calling birds, we learned little of their function. They had two loud distinctive calls. The first, and most common, was a loud, descending *crek* repeated at the rate of about 1 per second, and given in bursts of usually about 10 calls, though sometimes up to 20. The second was a loud, sharp, almost whistle-like call repeated at the rate of about 4 per second, given in bursts of up to 50. Both these calls could be heard from distances of several hundred metres. They also made a variety of quiet grunts and clicks, and chicks squeaked. Some of their calls were similar to tape-recordings we had of Australian birds.

Birds usually responded quickly when any of the calls, except the chick squeaks, were played on a tape recorder, but the loud calls got the best response, probably because they carried furthest. They did not respond to recordings of the rail caught in 1966, but this is not surprising because the calls were probably distress calls (Falla 1967).

Tape recordings of rail calls from Adams Island have been lodged with the Department of Conservation's sound library in Wellington.

### Flying ability

Although we often passed close to rails hidden in vegetation and occasionally attempted to flush calling birds we did not see them fly. Two captured birds were released from above head height but both dropped straight to the ground. The other captured birds were released on the ground and ran, rather than flew, for cover. Falla (1967) said of their flying ability 'It can fly, under duress, quite strongly and purposefully, but again in the ralline fashion that might be described as "low gear."'

## MORPHOMETRICS AND TAXONOMY

The measurements of the five birds caught are given in Table 1 and are compared in Table 2 with three earlier Auckland Island Rails and with Lewin's Rail from Australia. Unfortunately the methods of measurement were not specified for the other Auckland Island specimens (Falla 1967) nor the Australian birds (Harrison 1975), but it is likely that they were measured by the same standard methods we used.

TABLE 1 — Morphometrics of five live Auckland Island Rails

	Bill length (mm)	Bill depth (mm)	Tarsus (mm)	Mid-toe (mm)	Wing (mm)	Tail (mm)	Weight (g)
1	31.1	-	27.8	32.2	76	31	92
2*	32.3	9.4	29.2	32.7	85	29	89
3*	31.5	8.6	28.8	32.1	82	40	91
4	30.4	8.9	27.9	33.2	84	35	100
5	27.3	9.3	27.3	29.0	77	42	-
Mean	30.5	9.0	28.2	31.8	80.8	35	93

\* These birds were probably a pair

TABLE 2 — Morphometrics of Auckland Island and Australian *Rallus pectoralis*

	Bill length (mm)	Tarsus (mm)	Mid-toe (mm)	Wing (mm)	Tail (mm)	n	Source
<i>muelleri</i>	27-31	27-29	29-33	76-85	29-42	5	This study
<i>muelleri</i>	25	27	30	78	29	1	Falla 1967
<i>muelleri</i>	28	28	33	83	33	1	Type, Falla 1967
<i>muelleri</i>	35	33	40	103	43	1	"per von Hugel", Falla 1967
<i>pectoralis</i>	29-32	28-30	-	90-98	-	9	Harrison 1975
<i>brachipus</i>	35-37	31-32	-	101-102	-	2	Harrison 1975
<i>clelandi</i>	39-45	35-37	-	109-114	-	3	Harrison 1975

The five birds caught in 1989, the bird caught in 1966 and the type (Falla 1967) are mostly smaller than the other birds. The "von Hugel" bird, in contrast, is larger than all the other Auckland Island birds and closer in size to *R. p. brachipus*. Falla (1967) detailed the confusion about whether the "von Hugel" bird really came from the Auckland Islands and he even suggested that it may have been a Tasmanian bird that flew to the Auckland Islands and was caught there. He also suggested that it may have been larger than the other Auckland Island specimens known at the time because it was a male and the others may have been females. Certainly the bird caught in 1966 was a female (J.A. Bartle, pers. comm.), but is unlikely that all five birds we caught were females and one of the two birds we caught near a nest was probably a male.

The size difference between the Australian rails and the Auckland Island Rail is likely to be even greater than these data indicate. Nearly all of the Auckland Island birds presented for comparison in Table 2 were measured live, whereas the Australian birds were measured as museum skins, which will have shrunk.

These measurements support the idea, first suggested by Greenway (1958), that the "von Hugel" specimen did not come from the Auckland Islands, and along with the small clutch size and proportionately large egg they also support the retention of subspecific status for the Auckland Island birds.

### THE FUTURE

Although the rail population on Adams Island probably consists of hundreds of birds and is large enough to be self-supporting, it is at risk from the accidental introduction of predators and from pigs or cats swimming the few hundred metres from the main Auckland Island. If rails are found on Disappointment Island, there is probably little need for management of the subspecies, but if Adams proves to have the only population, an attempt should be made to introduce or re-introduce rails to other islands in the group. Disappointment is the only island that is suitable for rail transfer at present, but if cattle and rabbits were removed from Enderby suitable rail habitat would probably regenerate.

The top priority for Auckland Island Rail conservation is to search for them on Disappointment Island and to check Rose Island once more. If they are not on these islands, the next priority is to introduce them to Disappointment or to remove cattle and rabbits from Enderby so that suitable habitat regenerates and rails can later be introduced.

### ACKNOWLEDGEMENT

Thanks to Lou Sanson and Andris Apse for help and companionship in the field; Rowley Taylor, Peter Wilson, Barrie Heather and Colin Miskelly for criticising earlier drafts; Peter Moore and Peter McClelland for searching for rails on Rose and Ewing Islands; and Southland Department of Conservation staff for logistic support.

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## SHORT NOTES

### Cattle Egrets on Stewart Island

The Cattle Egret (*Bubulcus ibis*) was first recognised in New Zealand in 1963 (Turbott *et al.* 1963). Since then it has been a regular winter visitor to many localities throughout the North and South Islands. There are, however, few published records of the species on Stewart Island.

The first was in 1967 (Falla *et al.* 1970). None was seen on the island during a national census in August 1977 (Heather 1978) but Heather (1982) reported a sighting of nine in Halfmoon Bay on 16 April 1980, with three seen at similar times in the previous two years. A banded first-year bird from Gatton, Queensland, was recovered on the island on 9 June 1983 (Maddock 1990). The *Atlas of Bird Distribution in New Zealand* (Bull *et al.* 1985) shows no records from Stewart Island between 1969 and 1979. There are 29 cards for the 10 000-yard grid square covering Halfmoon Bay and environs (S21001400), but only four were completed in the period April to September when Cattle Egrets are likely to be present. There is only one record in Classified Summarised Notes between 1963 and 1989, of 4 birds at Halfmoon Bay camp-ground on 15 May 1986 (Kerr 1987).

During a trip to Stewart Island in April 1991, I made the following observations. A single bird was seen at the western end of Cooks Arm, southern Stewart Island (47°12' S, 167°36' E) on 13 and 14 April. On 22 April, one bird was seen on Butterfield Beach (c. 800 m north of Halfmoon Bay) and nine were feeding in a group on road verges in the village. When disturbed by pedestrians or traffic they roosted in nearby *Fuchsia excorticata* trees. They were apparently not present when I passed through Halfmoon Bay on 11-12 April, so they probably arrived between 12 and 22 April.

Discussions with local residents confirmed that the species is a regular winter visitor in small numbers. The birds were first widely noticed in Halfmoon Bay in 1974 or 1975; as they could not be readily identified at that time, local schoolchildren undertook a project to determine what they were. Since then, they have been seen in most years (S.D. King, P. Johnston, pers. comm.). There is very little open grassy habitat on Stewart Island and the birds are usually found in the vicinity of Halfmoon Bay, on the school playing field, on Traill Park or on road verges.

The recent edition of the New Zealand Checklist (Turbott 1990) describes the range of the Cattle Egret as "many favoured localities from Northland to Southland;....Regular also on Chatham Island." In spite of