

## AN AUCKLAND ISLAND RAIL

By R. A. FALLA

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In the course of the joint Dominion Museum - D.S.I.R. expedition which visited the Auckland Islands from January 14th to February 14th, 1966, a small rail, which was seen several times by members of the southern party under the leadership of Dr. E. J. Godley, Botany Division, D.S.I.R., in the vicinity of their camp on Adams Island was eventually captured by them and brought back alive in the care of Mr. J. L. Kendrick of the Wildlife Division, Department of Internal Affairs, to the Department's Native Bird Reserve and aviary at Mount Bruce, near Masterton. Here it has continued to thrive under the attentive care of the custodian, Mr. C. Roderick. At the time of its capture it had the general appearance, plumage texture, and colour pattern usually associated with immature birds. The general features of pattern were those of the *Rallus pectoralis* - *R. aquaticus* group of rails, but they were dull and ill-defined. In the subsequent year and more of confinement the basic pattern common to all races of *R. pectoralis* has become better defined. The measurements used in the tables and taxonomic discussion below are as of June 1966, with a further check in July 1967. They are below average, especially of wing and bill of a random series of all described races of *R. pectoralis* but this may be of less significance if the study specimen should prove to be a young female. In adequate series of carefully sexed specimens of *R. pectoralis* the bill length of adult males exceeds that of females by as much as 20%, and much the same proportional sex difference can be found in *Gallirallus*, *Cabalus* and some other genera.

### DESCRIPTION

The general proportions, appearance and plumage pattern are well shown on the accompanying photograph by Mr. J. Kendrick. The crown is chestnut, streaked with the black centring of the feathers: shoulders, mantle, back, rump, upper-tail coverts and tail are chestnut obscurely streaked with blackish brown centres of the feathers. A few barred black and white feathers matching those of the flanks are scattered among the long tertial coverts. Lores blackish brown; superciliary streak, cheeks, sides of neck and nape, are rich rufous; chin and throat whitish, deepening to grey on foreneck and breast which is tinged with olive. The feathers of flanks, belly, and under-tail coverts are black, transversely banded with white, and buff tipped: underwing coverts and axillaries grey, tipped white. Primaries are uniformly dark greyish brown. Soft parts are not strongly pigmented, the bill being dull flesh pink, brown on the ridge of the culmen; feet pinky grey. The iris, dull hazel at the time of capture, is now a somewhat richer brown. Colour changes generally, which seem to indicate progress to maturity, have been in the direction of heightened colour and clearer definition of pattern. In the wing 7th and 8th primaries are sub-equal (at 78 mm.) the 9th shorter (at 73 mm.) and 10th shortest (at 60 mm.). The bastard wing (alula) is flexible and tends to project (at 35 mm.) when the wing is opened. The longer contour feathers are soft and flexible to the touch in the living bird, a characteristic which might not be so noticeable in a dried skin.





[J. L. Kendrick

Plate XV — Adams Island Rail at Native Bird Reserve, Mount Bruce.



## BEHAVIOUR

At the time of its capture, and in subsequent confinement the bird has shown all the speed and stealth of movement for which small rails are noted, and has been shy, alert and wary. It was initially caught because of a habit of returning to scavenge at a garbage dump. In confinement it has had enough foraging space to find much of its own insect and other invertebrate food, but is provided with mealworms and mash. It has not so far given much indication of vocal accomplishments. Sharp single notes recorded shortly after capture seem to be distress calls. In less extreme states of agitation it utters brackets of two notes "Kek, Kuk," and has latterly developed the more muffled and deep-seated sounds like faint thumps which are characteristic of many rails. It can fly, under duress, quite strongly and purposefully, but again in the ralline fashion that might be described as "low gear."

The capture of this bird thus establishes that there are still indigenous rails at the Auckland Islands — on Adams Island, at least. The records of earlier observers indicate how elusive they are, and give very little evidence of former distribution or abundance. Thos. Musgrave (1865, 39) caught, to quote his own words "a bird like a waterhen" on the main Auckland Island on high country north of his camp at the site of the "Grafton" wreck in 1864, but this could well have been a gallinule or coot, both of which have occurred as accidental vagrants at islands further South. He has nothing to say about bringing back the rail skin with which he was later credited, as discussed later in this paper. As feral cats, spreading from the north end of the island were already appearing in the south before Musgrave left, the main island can be ruled out as a continuing habitat for small rails. Their discovery now on Adams Island confirms the sight observations of Dr. C. A. Fleming (*pers. comm.*) when on coastwatching duties in 1942, of small ralline birds which he was unable to confirm by capture or close inspection. Ewing Island is another possibility for it was here in 1942 that Mr. L. Seebeck (*pers. comm.*) saw a bird which he later identified (from an illustration of *Grex grex*) as a "corncrake." The present writer, after hearing nocturnal calls on Ewing Island in 1943 distinguishable from those of ducks and snipe set drop traps in which, however, only flightless ducks were caught. Subsequently, in 1962 both Dr. L. Gressitt and Mr. T. Dumbleton, familiar with the common birds, described birds seen on Ewing Island as being small and rail-like.

The remaining past record of rails from the Auckland Islands depends on two specimens said to have been procured there. The first was purchased by A. von Hugel in New Zealand in 1874 and mentioned by him in a letter published in *Ibis*, 1875, p. 392. The supposed second specimen was sent from the Stuttgart Museum to Rothschild in 1893 or slightly earlier by Count von Berlepsch who had received it from Baron von Muller of Melbourne. It has even been suggested by Buller (1905, p. 42) that it was the same specimen, passed by von Hugel to von Muller to von Berlepsch. Be that as it may, Rothschild described the Stuttgart bird as the type of a new species, *Rallus muelleri* (1893, p. 40). Later (1907, p. 204) he elaborated his description and published a colour plate by Keulemans. The same illustration, re-drawn by Frohawk, was published by Mathews. Another version, in black and white (by D. M. Reid-Henry) was

published by Greenway (1958, p. 215). It is assumed, though not specifically stated anywhere, that the type went back to Stuttgart. If so it was lost between 1939-1945 when war damage destroyed most of the collections (N.Z. Department of Internal Affairs files, 1966). There is no record that it was ever re-examined, which is strange, because the specimen bearing von Hugel's label found its way into the Rothschild collection and was examined at Tring by Mathews and Iredale (1913, p. 200) and later at the American Museum of Natural History, New York, by Greenway (l.c.). All concluded that it was a typical *Rallus pectoralis pectoralis*, and Greenway adds the further comment that "it may be doubted that the specimen was collected on Auckland Island."

We have then the unsatisfactory situation that the specimen briefly described by Rothschild was never re-examined and is now considered lost, and that von Hugel's specimen which does survive is not readily separable from typical *Rallus pectoralis pectoralis* (Lewin's Rail of Tasmania and southern Australia, which has distinguishable subspecies elsewhere on the continent and from New Guinea through archipelagoes north to the Philippines). It may be added that the doubts expressed about this specimen dismiss it too lightly. In August 1966, by kind permission of Dr. Dean Amadon, and with the assistance of Dr. Charles Vaurie, I re-examined it at the American Museum of Natural History. Its registration number is now 545046 and it bears two labels. The Rothschild label simply bears a name "*H. brachypus*" (= *R.p. brachypus*). The second is von Hugel's original printed label



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Plate XVI — Field photograph of Adams Island Rail at time of capture, January, 1966.

bearing neat inscription in two different inks, but the same handwriting. In faded brown ink it has "Auckland Island, November 1874, purchased Invercargill" and in stronger black ink "*Rallus brachypus*" — "freshly skinned." On the reverse of the label the inscription is "Procured at Invercargill from skipper of boat just arrived from Auckland Island" and initials "A.V.H." It can be ascertained from contemporary records that von Hugel arrived in Invercargill by the S.S. Albion from Melbourne on 19th December, 1874. Less than two weeks earlier the schooner "Mabel Jane" owned by Dr. F. A. Monckton, who had leased part of Auckland Island, returned from a trip of four months duration with a party of Monckton's friends who had collected all they could in the way of marketable mammal skins and curios, and no doubt a few birds. There was a ready agency in Invercargill in the taxidermy business of James Morton in Tay Street. There had also arrived one day before von Hugel a French barque which had just landed a German astronomical party at Auckland Islands, but the "Mabel Jane" is the more likely source. This hypothetical reconstruction of events tallies fairly well with von Hugel's written account except for a reference to Captain Musgrave who was at Auckland Islands in 1864/65, a date inconsistent with a label note "freshly skinned" made in 1874/75. The full reference in von Hugel's letter to Bowdler Sharpe (1875, p. 392) follows comment on skins of other species and continues "But my luck with Auckland things did not end here; for I have received a Rail killed on that island by the unfortunate Captain Musgrave of the 'Grafton.' As soon as I got the bird I was struck with its resemblance to one of the Rallidae I was acquainted with, but for some time could not make out which. At last it struck me that it must be the Australian *Rallus brachypus*; and on comparing the Auckland (Island) with the Australian bird, I found them to agree very closely, though the colouring seemed different; but as the Canterbury Museum specimen appears to be very old and faded, it is impossible to judge. It is curious, my falling in with so many things from the Auckland Isles, and especially a Rail, now that I am working on them. I shall be able to determine if my Rail is *Rallus brachypus* or new as soon as I get to Melbourne, there being a good series there. At all events it is the first Rail known to have been procured in the group . . ." In the light of what he had earlier written on his label it seems possible that he intended to indicate that he had received a specimen of the rail killed on that island by Captain Musgrave, for everyone in interested circles would have known about Musgrave's "bird like a water-hen." However, it is the specimen itself that is important. It is a good professional skin of a typical large (probably male) specimen in full plumage of *Rallus pectoralis brachypus* and not readily separable from Tasmanian examples. That it had flown from Tasmania to Auckland Island is not inherently unlikely, but it could well be that it is a representative adult male of the population established there.

The validity of *Rallus muelleri* Rothschild depends now on an assessment of Rothschild's diagnosis and its relevance to the characteristics of the little bird now running about at Mount Bruce. It, at least, was captured on Adams Island. In size (see measurements below) it is very close to the dimensions given by Rothschild. The plumage description of the type specimen would also fit it, except for the predominant reference to rufous as also depicted in the colour plates.

In the Adams Island bird rufous plumage is confined to brow, cheeks, side neck and nape, as in all other described races of *Rallus pectoralis*. Rothschild's diagnostic comment on his specimen is: "This little Rail in general appearance resembles *Rallus lewini* from Australia, but on comparison presents so many important differences that it might almost be separated generically. The chief distinguishing feature of the new species is the enormous development of the feathers on the back and rump, which have become a huge bunch like that of the Puff-birds (*Bucco*) of South America." The Adams Island bird certainly has soft plumage but it lies conformably with the body contours and looks normally ralline. Allowing for the dried-up antiquity of most available museum specimens of *R. pectoralis* their plumage is not significantly different. Nor does our live bird differ sufficiently in wing formula and limb proportions to comply with the requirements of the new genus *Hyporallus* proposed by Mathews and Iredale (1926, p. 76) to accommodate Rothschild's type.

Taxonomic opinion cannot be very conclusive when it is based on a lost type, a skin of which the authenticity has been doubted, and a live bird of unknown age and sex. Future field study may disclose that there are, or have been, representatives at the Auckland Islands of more than one derivative of Australian rails: but present indications are that an endemic rail on Adams Island differs from *Rallus pectoralis pectoralis* perhaps in being on average smaller in size and softer in plumage; and, less conclusively, having indications of degeneration in the wing formula. With some reservations about the pertinence of the original diagnosis by Rothschild its relationships would seem to be best expressed sub-specifically — *Rallus pectoralis muelleri* (Rothschild).

#### TABLE OF MEASUREMENTS

These include examples of several races of *R. pectoralis*. Those taken from the living bird at Mount Bruce are as of June 1966, checked in June 1967.

B.M. = British Museum: A.M.N.H. = American Museum of Natural History.

Specimen	Locality	Collector & date.	Sex	Wing (lgst pmry)	Tail	Tarsus	Toe	Culmen
Type of <i>R. muelleri</i>	Adams Island	J. Kendrick & B.D. Bell 1966 per von Muller	-	78 mm	28.5	27	29.9	25 x 8 deep
A.M.N.H. 545046	"Auckland Island"	per von Hugel	-	83	33	28	33	28
B.M.41.1349	"Auckland Island"	per von Hugel	-	103	43	32.5	40	35 x 8.5
B.M.1930.3.5. 28	Tasmania	J. Gould 1838	juv	101	38	31	35	33
B.M.1953.17. 43	Victoria			100	45	30	35	33 x 8
B.M.1953.17. 45	N. Guinea ( <i>cantus</i> )			106	42	32	35	34 x 9
B.M.1949.62. 14	"			92	35+	29	33	29 x 8
	N. Guinea ( <i>alberti</i> )			87	32	28	34	28 x 7.5

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## SHORT NOTE

## SIGHTINGS OF KERMADEC PETRELS AT SEA

In 1963 and 1966 I was in vessels trading between Auckland and Island Ports and during this time made 30 passages between Fiji and Auckland.

On this run it is normal to pass Raoul Island at distances of between 300 and 330 miles depending on the port of destination, i.e. Suva or Lautoka. On 29 passages Kermadec Petrels (*P. neglecta*) were seen on only one occasion, this being in April, 1966, when about 25 birds were seen feeding with Sooty Terns over a shoal of fish.

In December, 1966, the vessel sailed from Suva to Lyttelton and on this passage passed Raoul Island at a distance of 180 miles. The actual distances from the island on 11th December being:

0800 hrs.	226 miles
1200 hrs.	197 miles
1800 hrs.	184 miles

Kermadec Petrels were in sight throughout this day from dawn to dusk, never in large numbers, but four or five birds were in sight at all times.

From the above it would seem that the Kermadec Petrel does not normally range much more than 250 miles to the westward of its breeding area. This area between Fiji and the north of New Zealand is very sparsely populated by sea birds of any kind, as has been noted by numbers of observers who have passed through it.

The low population of this area, though it is surrounded by islands with large petrel populations, would seem to indicate that the area is poor feeding ground and is avoided. This in turn could account for the very few records in New Zealand of sea birds from the islands to the north of this country, though the distances to these islands are not great.

— JOHN JENKINS