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## Discovery and extinction of the South Island snipe (*Coenocorypha iredalei*) on islands around Stewart Island

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**Abstract** The South Island snipe (*Coenocorypha iredalei*) was described by Walter Rothschild in 1921 based on 3 specimens collected on Big South Cape I, and the species is considered extinct following introductions of weka (*Gallinallus australis*) or ship rats (*Rattus*) to its 2 last strongholds. I surveyed surviving museum skins, literature, and personal accounts of discovery and extinction. Seven only of the 24 known specimens had correct locality data associated with them; as a result, many were assumed until recently to be Snares Island snipe (*C. huegeli*). Based on specimen records, historic records, and museum collections, I determined the correct localities of the 7 specimens, and that the unknown collector of the type specimens of *C. iredalei* also collected bird specimens from Rangatira I in the Chatham Is in 1899 and 1900.

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**Keywords** South Island snipe; *Coenocorypha iredalei*; Snares Island snipe; ship rat; weka; John McLean; Sigvard Dannefaerd

### INTRODUCTION

Few naturalists saw the South Island snipe (*Coenocorypha iredalei*) before it became extinct in 1964. Apart from a possible record from Dusky Sound in 1773 (Medway 2007), the only sites where naturalists encountered South Island snipe (known also as Stewart Island snipe) were Jacky Lee I and Big South Cape I. The name *Coenocorypha iredalei* was given to the species by Walter Rothschild (1921) based on 3 specimens collected there and received from John McLean (1959). The name is also given as Jack Lee, Jacka Lee, Jacques

Lees I, or even “Jackless Island” (Mathews 1936); all specimens were collected in the 1830s. Big South Cape I or Taukihepa is a small island; it lies just west of the southern tip of Stewart Island.

The published history of snipe on Jacky Lee I is brief and poignant. *Coenocorypha aucklandica iredalei* was described by Walter Rothschild (1921) based on 3 specimens collected there and received from John McLean (1959). John McLean had seen 5 specimens, and nominated a lectotype specimen from Jacky Lee I in Dec 1932 (Wilson 1959)

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**Table 1.** Registration no., Date, Locality, and Species for snipe specimens collected on the South Island snipe (*Coenocorypha aucklandica iredalei*), Jack Lee I., South I., and Bowdleria punctata stewartiana!

Registration no.	Date	Locality	Species
! ž ! - " %1523	18/3/97	Jack Lees Islands	South Island snipe
· ž ! fi	June 1897	Jack Lee I., South I.	Fernbird
· ž ! fi	July 1897	Jack Lees Isld, Southland	South Island snipe
· ž ! fi	"  .	Jack Lees Isld, Southland	South Island snipe
· ž ! fi	June 1898	Jack Lees Isld	South Island snipe
· ž ! fi	June 1898	Jack Lee I., South I.	Fernbird
! ž ! - " %533	14/7/99	Jack Lees Island	! "° - "°±±± 3-±²±
! ž ! - " %1522	24/4/01	Jack Lee	South Island snipe

weka (*Gallirallus australis*).

... *iredalei* to be a subspecies of the Snares Island snipe (*C. huegeli*) and gave its ... 1929 (about 8 years before weka were introduced), with Major Wilson joining him for the last 8 days; ... Stead unpublished diary, David Macmillan archive Canterbury Museum ARC2001.12, Item 206; Wilson ... (Fleming 1953) in considering both Stewart Island snipe and Snares Island snipe to be subspecies of *C. aucklandica*, and gave the distribution of the Stewart ... South Cape Island. Jacky Lee Island (now extinct); ... coast, snipe were formerly found and it was here that the type of the subspecies was collected. The snipe were subsequently exterminated on Jacky Lee Island by introduced wekas".

... that Travers did not sell these specimens to Lord Rothschild until shortly before 1921. Rothschild displayed and named his new snipe at the 12 Jan ... (Rothschild 1921). Rothschild was known to name rare birds promptly, and it is also unlikely that the specimens were in his possession in 1913 when ... would surely have named the taxon himself! (M. LeCroy, pers. comm.). Although no correspondence referring to the purchase of the snipe specimens

**HISTORICAL ACCOUNTS**

**Henry Travers and Jacky Lee Island, 1897-1905**

... snipe in 1897; however, other than his name on 8 bird specimens labelled as being from Jacky Lee I (Table 1), there is no independent evidence that he ever visited the site.

... why it was not described until 1921 when the type ... that Travers did not sell these specimens to Lord Rothschild until shortly before 1921. Rothschild displayed and named his new snipe at the 12 Jan ... (Rothschild 1921). Rothschild was known to name rare birds promptly, and it is also unlikely that the specimens were in his possession in 1913 when ... would surely have named the taxon himself! (M. LeCroy, pers. comm.). Although no correspondence referring to the purchase of the snipe specimens

including the statement "I have a considerable number of skins from all parts of this country"

Although there are 5 only South Island snipe skins labelled as from Jacky Lee I and collected by Travers (Table 1), it is probable that he obtained at least 15 snipe skins from the island. There are another 5 South Island snipe skins labelled as Travers specimens but with incorrect or no locality data...

A likely causative factor of incorrect labelling by Travers was the long time that elapsed between 1893 and 1927 (see above), and a further 25 snipe skins (including at least 7 with incorrect locality data) were sold to the Dominion...

and it was probably acquired as part of a bulk lot by the Dominion Museum in 1936 (Dell 1965). The Robert Falla (Director of the Dominion Museum) while researching this paper in May 2011: (vide dated catalogue card annotations made by Sandy Bartle, former Curator of Birds).

A specimen of c.1900 vintage in Canterbury Museum (AV1817) was originally in the collection of Dr Benjamin Moorhouse. The Moorhouse collection was loaned to the museum following the outbreak of World War I, then acquired by the museum following...

Stewart I region specimen labels undertaken by Trish Hemphill (Hemiphaga novaeselandiae), Jacky Lee I, 14 original label, although 2 have subsequently had his name added as the collector.

**Table 2.** Details of all 24 known skin, mount and spirit specimens of South Island snipe. Date, age/sex, locality and collector data are all from the original labels or registration forms. For details of the original labels or registration forms, see the Appendix. Specimens were collected from 1897 to 1964. The first column indicates the registration number, the second column the specimen type, the third column the date, the fourth column the age/sex, the fifth column the locality, the sixth column the collector, the seventh column the type status, and the eighth column comments based on this review.

Registration no.	Specimen	Date	Age/Sex	Locality	Collector	Type status, and comments based on this review
117	Skin	18 Mar 1897	Male	Jacky Lee I	fi fi	fi fi
118	Skin	Jul 1897	Female	Jacky Lee I	fi fi	fi fi
119	Skin	" "	Male	Jacky Lee I	fi fi	fi fi
120	Skin	Jun 1898	Male	Jacky Lee I	fi fi	fi fi
121	Skin	24 Apr 1901	Female	Jacky Lee I	fi fi	fi fi
122	Skin	24 Apr 1901	Female	-	-	-
123	Skin	Jun 1905	Female	Snares Is	fi fi	fi fi
124	Skin	Jun 1905	Male	Snares Is	fi fi	fi fi
125	Skin	July	-	Snares Is	fi fi	fi fi
126	Skin <sup>1</sup>	-	-	Snares Is	fi fi	fi fi
127	Skin	July	-	Snares Is	fi fi	fi fi
128	Skin	-	-	Snares Is	fi fi	fi fi
129	Skin	-	-	Auckland Is	fi fi	fi fi
130	Skin	-	-	Snares Is	fi fi	fi fi
131	Skin <sup>2</sup>	-	?Imm	-	fi fi	fi fi
132	Skin	-	Male	Solomon I	fi fi	fi fi
133	Mount <sup>3</sup>	1 Sep 1931	Male	Jacky Lee/Solomon I	fi fi & fi	fi fi
134	Skin	-	Male	Jacky Lee/Solomon I	fi fi & fi	fi fi
135	Skin	-	Male	Jacky Lee/Solomon I	fi fi & fi	fi fi
136	Skin	-	Juv	Jacky Lee/Solomon I	fi fi & fi	fi fi
137	Skin	-	Male	Jacky Lee/Solomon I	fi fi & fi	fi fi
138	Skin	-	Female	Jacky Lee/Solomon I	fi fi & fi	fi fi
139	Skin	-	Female	Jacky Lee/Solomon I	fi fi & fi	fi fi
140	Skin	1 Sep 1964	Male	Big South Cape I	B.D. Bell	B.D. Bell
141	Skin	1 Sep 1964	Male <sup>4</sup>	Big South Cape I	B.D. Bell	B.D. Bell

<sup>1</sup> Specimen ex Moorhouse Collection; <sup>2</sup> Specimen ex Moorhouse Collection; <sup>3</sup> Specimen ex Moorhouse Collection; <sup>4</sup> Specimen ex Moorhouse Collection, with the torso kept in alcohol.





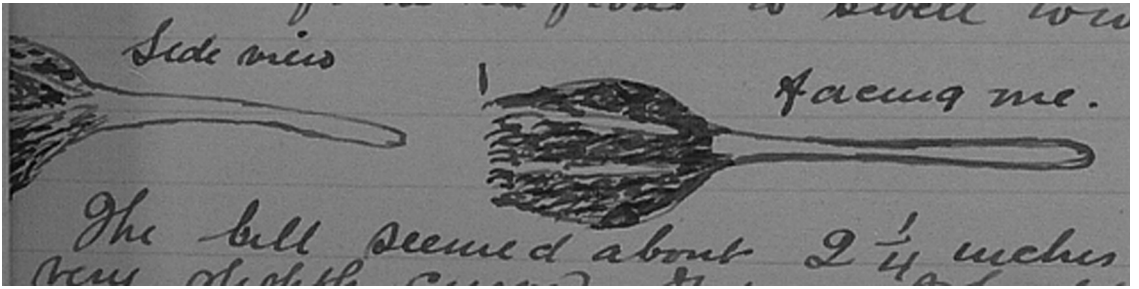


Fig. 2. The bill seemed about 2 1/4 inches long. The bird was facing me.

*australis* is a 2<sup>nd</sup> penguin nest. Right in the bush on top of the Island. For full particulars see the yellow sheet of this date.

It is doubtful more likely an undescribed one. Strange it should have escaped observation. It is a very common bird on the island. It is a very common bird on the island. It is a very common bird on the island.

The bill seemed about 2 1/4 inches long. The bird was facing me. It is a very common bird on the island. It is a very common bird on the island. It is a very common bird on the island.

It is a very common bird on the island. It is a very common bird on the island. It is a very common bird on the island.

Wilson in 1931 were described in detail by Miskelly which came to light 57 years after his death. Additional information on snipe recorded by both Stead and Wilson has been since found in the David Macmillan archive (see above) and in Major

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**Edgar Stead and Major Robert Wilson on Jacky Lee Island, 1932**

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**Edgar Stead and Robert Wilson on Big South Cape Island, 1931**

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« "S ¥¼«-¶ S ¼ a.« "µfi-¼µ¼fi ¼¼² |® ¼ .« " ¶ ¼ "¼  
\* -¶² ± «² ° " Z " « " ± ¼ ± ° -¶

Stead and Wilson stayed on Solomon I, just  
±² µ « ² ° -¶ &² . « " ¼ " fi ¶ ° ! ² 1 . ² " |  
1931. Snipe were encountered on Big South Cape I  
only, which they visited on 13 days (mostly in Dec)  
using a small boat. Stead and Wilson saw snipe on  
6 days between 2 Dec and 10 Dec 1931, plus their  
|² ° ³ ¼ ± ² ± & µ ¼² « ± fi ¼ ± « ¼ ° ¶ ¼ ° ¼ ¶ ± ² ± ° -¶  
&² . « " ¼ " fi² ± ! ² 1

Stead collected 7 snipe specimens during  
the expedition (Table 2); 6 are in the Canterbury  
Museum, and he gifted 1 to the British Museum  
during a visit in 1932. Stead had taken snipe  
¶³ " |² ° ± ¶ ¶ . ² √ ± a ¼ ± S . ² |² ° ³ ¼ ¶ " ° -¶ Z² ¶ S  
%² . « ¶ | « -S ¶ ¶ ¼ Z " fi ¶³ " |² ° ± ¶ " » ³ ² µ ³ " µ " -  
¶ ¶ . " S ž ¼ µ " ³ ¼ µ " ± . ² ¶ ± . " µ ¼ " ¼ ¶ ¶  
¼ ± S « " ° ¶ ¶ S -¶ ¼ ³ ² ± . " S . ² ± S . « ¼  
%² . « ¶ | « -S ¶ ¶ ¼ S |² " . ² ± « ¼ S -¶ ¶ . ¥ " ± ¶² S . ² . « " °  
|² ° µ ¶ ¼ ± Z . ¶ . ² ° ² ¶ ¼ . µ ¶ fi -¶ ² µ ¼ " 1 " µ ¼ ² S ¼  
« " µ " -¶ ¶ ¶ « . © " ¼ ° -S ¼ ¥² . - " S a ¼ µ & " ¼ S " µ  
to Robert Wilson, 26 May 1932; Letheny archive).

! ² ± " ² ° . « " & " ¼ S ¶³ " |² ° ± ¶ ¶ « ¼ S |² " . ² ±  
S " ¼ ¶ ¶ ¼ » S ² 1 " µ ¶ . ¶ ¶ . " ± ¼ ¼ ¶ ¶ ¼ " « ¼ " ¥ " ±  
assigned incorrect locality data, and the only date  
¼ ¶ ¶ ± ± S -¶ ¶ ¼ ° µ ² ± a " ¼ ¥ " & " ¼ S ¶ S -¼ µ ¼  
² . ² . " S " » . " ± ¶ ¶ ¼ " ¼ ¥ ¼ Z -¶ |® " ¼ S " Z ¼ ± a "

described the collection of 4 clutches of snipe eggs,  
but made no mention of adult or juvenile snipe  
¥ " ± a |² " . " S \* -¶² ± ¶ S -¼ µ ¼ S " ¶ µ ¥ ¶ ¶ ¶ ± ²  
¶³ " |² ° ± ¶ ¶ ¥ " ± a |² " . " S ¥ . " ° " ± ±

all on Big South Cape I. Based on the opportunities  
Wilson described, it is likely that the 2 remaining  
specimens were collected on 4 Dec and/or 7 Dec:

Wednesday 2<sup>nd</sup> Dec. After lunch about 3  
² |² |® ° " ¶ . ² . © µ &² . « " ¼ " fi ¶ ± . « " ¥² ¼  
a² . « " µ " ¼ ¥² . fi ¼ ± « ¼ °

I went on up to the top. Shortly after we  
µ ¶ ¼ « " S . « " ² ³ " ± |² . ± µ ¼ fi ¼ ± « ¼ ° . ¶ ¶ S  
¼ ¶ ± ² " » |² ° " S fi " µ " -¶ ¶ ± " ¶ ° -¶ «  
two eggs!" We tried to capture the bird but  
- S -¶ ¼ ³ ³ ¼ µ S ¶ ° " " © . « " ± " ¶ ° " ± .  
on. We saw some burrows high up which  
fi « ± ® ° " µ " " ¶ µ " ¼ ¼ ° ² " -S ³ " µ " -  
*Pterodroma inexpectata* ¥ . ± ² ¶ ² µ ³ " µ ¶  
&² ± ¼ ° µ ¶ ¼ S ¶ ¶ . ¶ ¶ S ¼ ¶ ± ² " ° -¶ ¼ ± " ¶  
of two eggs but failed to catch it. The eggs  
were just chipping but I brought them in  
© µ " S a ¼ µ " ² ° ± a ¥ ¼ |® ° " « ¼ S S - | . ¼  
± S ± a . « " ± " ¶ . ² ° « " ¶ ± " ± ¼ µ ¼ |² ° " °  
± ° -¶ ² . " a " ± a -¶ ¶ -¶ ¼ ¶ ¶ a " ± a ¼ .  
\* " « ¼ S ± ² . ° ¼ ¶ S - ¼ ¼ ° " - fi ² ° " 1 " µ  
" 1 " ± . ¼ ¼ fi © . ± S - ° -¶ . « " ¥ ¶ S ² ±  
killed it with a stick when she rose from the  
ground...The snipe eggs were a beautiful  
¥ µ ° ± |² ² . µ " S a ¼ µ ¶ ¼ ¶ . « " ¼ ¼ µ " « " ² ± ¼ ¼  
eggs collected.

Thursday 3<sup>rd</sup> Dec. ¶ ° " µ . µ " S ° " ±  
on to South Cape landing where we pulled  
« " ¥² ¼ . ³ ° " ± . ³ ¼ © µ ¶ ± ² " \* " . « " ±  
¶³ µ ¼ S ² . ± ¼ ± " ¥ " ¼ ± ¼ µ ¼ © µ ¶ ± ² " °  
~ S a ¼ µ . ¶ ¶ S ² ± " ¶ ¶ ² . - - ³ µ ² 1 " S . ² ¥  
¼ ° ¼ " . © µ ¼ ¥² . ¼ ± « ² . µ ¶ . ¶ ¶ S ¼ ¥ ¶ S  
² « " µ ± ¶ ° -¶ . ° ² " a a ¶ |® µ ¼ ¶ ¶ ¶ ¶ fi " °  
¼ ° ¼ ¼ ¶ S ¶ . « " ± ¶ ² ³ ³ " S ¶ . " ¼ ° S ± ¼  
protecting manner. We left the eggs with the  
intention of photographing it tomorrow... We  
saw a good many (about 8 or 10) woodhens  
° " ¼ ° ¼ ° ¼ ± a ¼ ¥² . ± . « " ¶ ¶ µ ¥ |² . ± µ ¼  
we were looking for snipe in.

Friday 4<sup>th</sup> Dec. ¥ ¼ . © " ± " ° ² µ ± a  
° -¶ ¼ ¶ ¶ « . ¥ µ " ½ ¶ ° . « " ! \* " a ² . ³  
¥ " © µ ¶ ¶ " 1 " ± ¼ S a ² . ¼ ° ¼ ¼ ¼ ¥² . ² |² |®  
µ ¶ ¼ « " S © µ &² . « " ¼ " fi " \* " ¼ S S ¼  
« " ± ¼ µ ¼ ± S ± a " ¼ ¼ µ " |² ° ¥ S . ³  
° -¶ " S a ¼ µ ¶ |² ° µ ¼ . ³ . « µ ² . a . « " ¥ . ¶ ¶  
² ° « " µ " ° " ¼ S © . ± S « " ¶ ± ² " ¶ ± ¶ . « " °  
day before. We approached it carefully and  
- ¼ ² ° " S . ¶ . ² ³ ² . ² a µ ³ « - ² ± . « " ± " ¶  
~ S a ¼ µ " 1 " ± | . ± a ¼ ¼ ¼ « " ¶ ¶ µ ¥ ¼ ¶² . ± S -  
² a . ¼ ¥ " µ ³ « ² . ² a µ ³ « 1 ± ¼ ¼ " ³ . ¶ ¶ S  
- ² ° " ³ « ² . ² a µ ³ « S . « " a a ¶ \* . « " ±  
° " ± . ² ± © µ « " µ © . ± S ¼ |² . ³ " ² ° ¶ ± ² " °  
about 2 miles further on after a lot of beating  
« " ¥ . ¶ ¶ ¶ " ± ° ¼ ¶ ¼ ¼ . ± a ² ± " . « " ¼ ¼ ¶ ¶  
¥ ¶ S ~ S a ¼ µ ¶ ¶ ² . ¥² . ² ° « " ° " ° µ . µ " S  
« ² ° " a " ± a ± ¼ ¥² .

Monday 7<sup>th</sup> Dec. ...we decided to turn back  
a ² . ² 1 . ² ¼ µ " ° " µ " ° ¼ ± S " S ³ . " S  
« " ¥² ¼ . ³ \* " . « " ± ¶ ¶ µ " S . ³ . « " « -  
² ² © S © µ " " ¶ µ " ¼ ¼ ± 1 ¼ µ ² . ¶ ¶ µ ² ° ¶ ¶ .  
² ± ¼ © . ± S ° . ² ± ¥ ¶ S ¶ ² ± . « " µ " a a ¶ \* " °  
a ² . ² . « " ² ³ ² ° « " ¥ . ¶ ¶ ~ S a ¼ µ ~ ¥ ¥ « ¼ S  
a ² ± " ² ± ¼ « " ¼ S ° " ± ¶ . S S " ¼ ¼ ¶ ± ² " °  
³ . ³ . ° ¼ ¼ ° . fi ¶ ° ¶ ¶ µ ³ ± a ¶ ° ¼ ± ¶ .  
with two eggs. These were not so dark as the  
¶ ¶ . " a a ¶ fi © . ± S ² µ ¶² ³ ¼ " ¶ ¶ . « " ¶ |² ± S  
lot being rather intermediate...We went on  
© µ « " µ " S a ¼ µ © . ± S ¼ ± . « " µ ¶ ± ² " ± ¶ .  
° -¶ « S ¼ ¶ " a a ¶ " . " ¶ ¶ ¶ " « " ± ¶ ¶ fi  
found was partly incubated.

Wednesday 9<sup>th</sup> Dec. It rained for about an  
« ² . µ ¼ ¥² . ¶ ¶ 1 " ± ¼ © µ ¶ ¼ S ¶ µ ¼ ± . « " µ  
« ² . µ ¼ ¥² . " . « " ± |² ¼ µ S . ³ " |² ³ . © µ ¼  
¶ -¶ « . ¶ ¶ ² ° " µ " © µ " ± |² ¼ ¼ ¥² . . ° ² ² |² |®  
we went over to South Cape Island taking  
|² ° µ ¶ ¶ " ± . « " ° ¼ ¼ . ³ fi ¶ ° ¼ ¶ ± ² " ² ± . « " °  
µ ¶ |® ° « -¶ ~ S a ¼ µ ¶ ¶ ² .

Thursday 10<sup>th</sup> Dec. Today broke with a  
moderate W. wind which was favourable  
© µ ž . ¶ S " µ ¶ ¶ " ² 1 " &² ° " ¶ . ² ¼ ° µ  
breakfast after mending the boat which was  
¶ ² 1 " ± ¼ ¶ " ¶ S ¼ ¼ \* " µ ¶ ¼ « " S . « " µ " ¼



±" ¼¼«-¾« .-§" ½², . 2 |²|® 3, -"§  
 the boat up on the same spot as before. We  
 ¶. 2 ③µ. «. ²³ " ± µ¶¼±ª .«" ¶µ ½  
 -±" ° ° ½² ½², . ③µ ¶±³" ~ §ª µ¶¼° ²±"  
 but we did not get a chance at it...We walked  
 over a good deal of scrub country but saw  
 no more snipe.

A thorough search of the David Macmillan archive in Canterbury Museum located additional pages  
 ④¶° & ¶§ ¶ §-µ¼±|, §±ª ±². ¶²± ¶±³" ²¹  
 µ²² ③ §½² ¶®-¼ §" ½²ª"

4<sup>th</sup> Dec...Took more side view of the Snipe  
 a-±ª ¶¶| ~³² ¶µ ² 1 ± µ±±  
 ' « ³-µ ²± ° & ¶ |²¹ "µ§ |«-¼  
 by windswept Manuka, interspersed with  
*Dracophyllum longifolium*. It is all peat,  
 with odd rocky outcrops; open places being  
 covered with lichens or moss. The Snipe nest  
 ± ¶«² µ ½ ²±, ®µ ²± .«" ° §ª² ③-µ ¶  
 and the ones we have found were not in thick  
 cover. There are a good many weka, robins  
 [*Petroica australis* ±§ ² ²|®¶¶ ½-½¶§¶  
*Anthornis melanura* ³ .«" µ ¶¶ | ° - ¶¶ µ  
 a few Fernbirds [*Bowdleria punctata* ' «" µ.  
 varies from about 600 to 1000 feet.

7<sup>th</sup> " | «" ¶±³" µ¶¶ ²§ ¼¼², . ° ±¼  
 yards, if pursued, but, for the most part run  
 among the heavy scrub and stand watching  
 ¼, ' « µ ¾« . ¶ |µ¼-® . « ² ③ ° ²² § |²|®  
 [*Scolopax rusticola* ²±¼±². ¶ ¶µ±ª ° ². «  
 sexes take their turn at incubating the eggs.

& ¶§ ¶ ²¶¶ µ µ-²± ² ③ ¶±³" ¼±ª ° « ±³, ¶¶, " §  
 ° ¶¶ ³ µ² ½²¼. «. ½¶¶¶ ③ µ / . « µ ¶ & ¶ « ¶  
 p.186) footnote, referring to the South Island snipe;  
 "That *Gallinago aucklandica* |±± ¼ ¶¶¶ ¶¶  
 the experience of a friend whose ornithological  
 abilities cannot be gainsaid. What, however, each  
 ¶ § ±µ, µ-¶¶ «-¶ ¶ ③ ¶¶ ¶ µ ¶¶ . « µ « ¶ ½², ±§  
 to declare. My particular cronies did not use their  
 wings and I leave it at that."

& ¶§ ²§ / , « µ ¶ & ¶ « ③ ¶° " ¶¶ ². « µ  
 well, and were regarded as "old colleagues" even  
 before they travelled together to the Auckland Is  
 on the government steamship *Tutanekai* in 1929  
 ¶¶ ²§ ²§ ¶ ± ± ¶¶¶, ±³, ½-¶¶ " § ° ¶³ µ² ¶¶  
 1500, folder 22, Alexander Turnbull Library). They  
 ° µ ¶ ¶¶ ± |² µ¶ ¶³ ²§ ±. ¶ ¶, ±- / , « µ ¶  
 & ¶ ¶ § " µ ± ¶ - § ½ ¶¶ - ² ± ¶¶ ¶ ¶  
 Canterbury Museum, and note the photograph of  
 .«" ² ③ .«" ²ª . « µ ± & ¶ § ¶ ¶² ± ±  
 published in *Notornis* vol. 20, p.89, 1973).

**Lance Richdale on Big South Cape Island, 1945**  
 The depredations of Stead, Wilson and weka  
 notwithstanding, snipe persisted in low numbers  
 on Big South Cape I for another 33 years. Lance

Richdale and William Denham visited Big South  
 ~ µ³ fl ¶¶° ¶± % ¶¶ § µ ¶ ¶ ¼  
 observed 4 snipe, including 1 pair (probably an adult  
 µ±§ ③ -¼ª µ² ° ± |«-¶ª a ± .«" .-° ² ③¼ µ

We saw only four individuals. After  
 spending a day on the tops we were  
 «² ° ° ¶¶ ³ ² § § ±ª ², µ ° µ¼¼ ° µ¼ ±². µ  
 great distance above the bush, we observed  
 two birds feeding together in soft mud under  
 some Manuka about six feet high. Four days  
 later we found another on top of one of the  
 peaks. Returning that afternoon, and when  
 in the bush, Mr. Denham nearly trod on one,  
 |µ, ¶±ª - .² ¼ ¶² ° ° ③ ¶± ③ . . « µ ¶, a « .«  
 trees and about two feet above the ground.

Richdale expressed concern at the presence of  
 weka on the island, stating "The gravest danger to  
 its existence is the Weka, which eats the eggs and  
 young...In 1945, we found few Wekas and few  
 Snipe; we also saw one Weka well above the bush  
 -±" ' «" ¶¶ |µ ¶ ±³" ¶ - ° ¶¶ ² ± . « ¶¶ ² ± §  
 but obviously all the elements for the loss of the  
 valuable bird are present. Because the Wekas are  
 not plentiful and are largely in the bush, the Snipe  
 are experiencing a temporary respite only."

\* - § - ③ & ¶ µ ¶¶ ¶¶ µ ² ± ° - ¶ & ¶ . « " µ³ ¶¶ ¶± §  
 .«" ± ¶ |« µ³ . µ  
 ° µ ± ± - µ ± § ° µ ² ½ " µ ± ² ③ .«" ! ° ° - " µ ± §  
 Wildlife Service saw a single snipe only during  
 µ ° ² ± .« ² ±ª ¹ ¶¶ ± . ³ µ ¶ . § - § « " µ µ .«  
 hawaii (*Weekly news* 8 Aug 1962; Miskelly 1987).  
 Three years later they were shocked into action  
 ½¼µ ³ ² µ ¶ ¶° ° ° ² ± ½ ¶ § ¶¶ ¶¶ . « µ . «" ¶ ¶ ² § ° ¶¶  
 ²¹ " µ µ ± ½¼ µ ¶¶ ° - - . µ - µ ± | " ' «  
 devastation caused by recently colonised ship rats  
 on the South Cape islands (Big South Cape, Solomon  
 µ± § #, ® ° ° µ ¶ ² ± ² ③ .«" a µ µ ¶¶ . µ ± § - ¶ ¶ ±  
 ° ² § µ ± ! ° ° - " µ ± § |² ± ¶¶ µ µ-² ± « ¶¶ µ¼ ½ ² µ ¶¶  
 & ¶ « |« µ³ . µ , ² ±ª ° µ ± | "

Although South Island saddlebacks (*Philesturnus  
 carunculatus*) were saved, the last remaining  
 populations of 3 vertebrate species were wiped out:  
 a µ µ µ ¶¶ µ µ - ¶ § ½ µ *Mysticina robusta*), bush  
 wren (*Xenicus longipes*), and South Island snipe.

A Wildlife Service team spent 5 weeks on Big  
 & ¶ . « " µ³ ¶ ± : . a & ³ µ ° ° ³ . ±ª .² ¶¶  
 saddlebacks, snipe and wrens. Three snipe were  
 caught by the team beating in a line through scrubby  
 ¹ª . µ -² ± , ± - ² µ ¶ ±³" . ¶¶ " § . « ± ¶¶ µ ¶ , ± § ±ª -  
 µ ± § | µ | « ±ª - ° - ² ③ ¶¶ µ ± ± . ¶ ¶ " ±" ½ ¶ §  
 escaped after capture; the 2 others (both male) were  
 placed in an aviary on 30 Aug (Fig. 3), but the team  
 was unable to supply them with enough live food  
 µ ± § . « " ½² . « § - § ± µ & ³ µ ¶ ½ ² µ ¶¶ & ¶ «  
 ° µ ± | " ' « " µ µ µ ¶ " ½ ± ± ² |² ± µ ¶ " §  
 sightings of South Island snipe since.



Fig. 3. A snipe bird with mottled brown and black feathers, a long dark beak, and a blue eye, standing in a field of green grass.

**DISCUSSION**

**Who collected snipe on Jacky Lee Island?**

It is assumed that all specimens bearing his name were personally collected by him. Based on Jacky Lee Island snipe specimens, it appears to have visited the Stewart I region at least 14 times between 1895 and 1905, with Jacky Lee I visited on at least 7 of these trips. This is unlikely, as Travers was based in Wellington and was a man of insubstantial means: he was declared bankrupt in 1888 (*Evening Post* \* 1888) and he often (and unsuccessfully) sought to collect snipe on Stewart I (see Miskelly 2011 archives).

Travers signalled his intention to travel to Stewart I in 1895 and 13 May 1896 (Tring archive), however, other than bird specimen labels, there is no evidence of Travers in the *Southland Times* (viewed 27 May 2011), but this absence of evidence

is not surprising as Stewart I was first visited by Stewart I at least 6 times between 1910 and 1923 (see Miskelly 2011). There is no mention in the *Southland Times* (op. cit.).

There is some evidence that Travers already had a collector active around Stewart I before he told Travers to proceed to Stewart's island, for the purpose of collecting snipe on Stewart I. It is likely that Travers already had a collector active around Stewart I before he told Travers to proceed to Stewart's island, for the purpose of collecting snipe on Stewart I. It is likely that Travers already had a collector active around Stewart I before he told Travers to proceed to Stewart's island, for the purpose of collecting snipe on Stewart I.

Travers referred to "a man who is collecting for me on the Southern west coast", and there is a possibility that this man was the collector who collected snipe on Stewart I. It is likely that Travers already had a collector active around Stewart I before he told Travers to proceed to Stewart's island, for the purpose of collecting snipe on Stewart I. It is likely that Travers already had a collector active around Stewart I before he told Travers to proceed to Stewart's island, for the purpose of collecting snipe on Stewart I.

... collecting visits to Jacky Lee I without this being known to local naturalists. The Traills in particular ... the type specimen of the Chatham Island snipe on his only visit to the Chatham Is in 1867, beating ... failed to discover the South Island snipe just 10 km from his home.

... specimens sold by Travers appear to have been ... i.e., Travers and ... 2008). If Travers visited Stewart I on multiple occasions between 1895 and 1905, then it is likely ... Tongarewa, Landcare Research, Auckland Museum, ... Travers dated between 1863 and 1909; none is from ... strongly suggesting that Travers never visited there.

... pigeon labels from Jacky Lee I (both collected Jul 1899) closely matches the handwriting on a large series of Chatham Island snipe (Fig. 1) and shore plover (*Thinornis novaeseelandiae*) specimens in the Te ... I on dates including Jan and Aug 1899 and Sep 1900 (many of these specimens lack dates). Intriguingly, these specimens from both Jacky Lee and Rangatira Is bear labels otherwise considered characteristic ... James, pers. comm. ... curio dealer, who sold bird specimens to Walter Rothschild and the Dominion Museum; he twice ... 1894 and Jan 1895 (Dianne Dannefaerd, pers. comm.). The distinctive handwriting by a 3rd party suggests

that the same unknown collector who visited the Chatham Is on multiple occasions in 1899 and 1900, and the Stewart I region in at least Jul 1899, not only ...

**Incorrect locality data on specimen labels.**

... *Coenocorypha aucklandica iredalei* with a diatribe bemoaning the abysmal standard of specimen data on all the *Coenocorypha* specimens in the Rothschild collection:

! 2. 2±± 2©. «... ¶(±¶¶ 2©. «... a±±, ¶ *Coenocorypha* in the Tring Museum has been properly labelled on the spot, with precise locality, date, etc., none having been ... collectors. There is thus no authority for the localities, which were apparently put on the ... *Ibis*, 1926, has published these wrong localities; she says of *C. auckl. aucklandica*, that there is one from the Snares in Tring, where *huegeli* nests, of "*C. a. tristrami*," meaning the Antipodes form, that there are Snares I. specimens, of *huegeli* (the Snares subspecies), that there are three from the Auckland Islands!

Lord Rothschild continued in the same vein on the

fit «... ¶... / ¶... «... ¶... &... woodcocks") of the genus *Coenocorypha*, and so there was no reason to doubt the labelling of the few we had. Some years later, however, ... if driven out to sea by gales they would inevitably be drowned; therefore we cannot suppose that these odd birds labelled from ... strays.

fit ¶... ¶... ¶... *Coenocorypha* specimens both in the Rothschild collection (now in

**Table 3.** *Coenocorypha* snipe specimens with incorrect locality data on their original labels. This list does not include 15 *C. iredalei* specimens with incorrect locality data listed in Table 2. Taxa listed are Snares Island snipe *C. huegeli*, Auckland Island snipe *C. aucklandica aucklandica*, and Antipodes Island snipe *C. aucklandica antipodensis*. Date, locality and collector are based on the original labels; supplier is either stated or inferred from handwriting. Museum acronyms as per Table 2 caption. It is likely that most of these specimens were collected by crew members of government steamships (especially the *Hinemoa*)

Registration no.	Taxon	Date	Locality	Collector	Supplier	Comments on true collection locality
100	<i>C. huegeli</i>		Antipodes I		Dannefærd	Snares Is
101	<i>C. huegeli</i>	1895	Auckland Is		Travers	Antipodes I
102	<i>C. huegeli</i>		Auckland Is		Dannefærd	Antipodes I
103	<i>C. huegeli</i>	1895	Auckland Is		Travers	Antipodes I
104	<i>C.a. aucklandica</i>	1894	Snares Is	Travers		Auckland Is
105	<i>C.a. aucklandica</i>	May 1894	Snares Is		Travers	Antipodes I
106	<i>C.a. aucklandica</i>		Antipodes I		Dannefærd	Antipodes I
107	<i>C.a. aucklandica</i>		Antipodes I		Dannefærd	Antipodes I
108	<i>C.a. aucklandica</i>		Snares Is		Dannefærd	Antipodes I
109	<i>C.a. aucklandica</i>		Auckland Is		Dannefærd	Antipodes I
110	<i>C.a. aucklandica</i>		Auckland Is		Dannefærd	Antipodes I

<sup>1</sup> *Gallinago tristrami* Rothschild, 1894. The error in locality on the label led Rothschild to use this specimen to describe it as *G. aucklandica*. The error was corrected in the original publication. <sup>2</sup> *G. aucklandica* was also recorded from the Snares Islands by Travers (1895) and Dannefærd (1896).

was by no means the only one. As early as Jan 1894, Rothschild (1894b) had noted:

of *Gallinago tristrami* I have received seven more specimens of *G. huegeli*, Tristr., and *G. aucklandica* ... *G. huegeli* are labelled, one as coming from Auckland Island and the other from Antipodes Island. ... *G. huegeli* ... the Snares, the two only known specimens ... who sent my specimens, gets most of his ... and I have more than once noticed in collections made by them for Sir Walter Buller that the labelling was most careless ... came from Antipodes Island and the other six from Auckland Island, and specially mentions that he sent examples of two ... I am more inclined to doubt the accuracy of the labelling than the possibility of two isolated islands (Auckland and Antipodes Is.), more than 500 miles apart, presenting

the very unusual fact of two quite distinct species of Snipe (*G. huegeli* and *G. aucklandica*) on the one, and one of them only (*G. huegeli*) on the other, while on a neighbouring group (Chatham Is.) we have a third distinct and somewhat intermediate form. Lastly, we should have the still more incredible fact that *G. huegeli* occurs in company with *G. aucklandica* on Auckland Island and with *G. tristrami* on Antipodes Island, while on the Snares it is the sole species of Snipe, and on the Chatham Islands *G. pusilla* alone is found. The rather unfortunate doubt as regards the locality of some of my specimens, however, does not, in my opinion, interfere with the fact that there are four distinct species of Antarctic Snipe, as the series laid before you ...

*Gallinago tristrami* Rothschild 1894 was the name proposed for the Antipodes Island snipe, until Bowdler Sharpe (1896) pointed out to Rothschild that it was inseparable from "*G. aucklandica*". After true (correctly labelled) Antipodes Island snipe were received by Rothschild, he realised that the *G. tristrami* type was an incorrectly labelled Auckland Island snipe, and he named the Antipodes Island snipe ...



... author, unpubl.) and has a more yellow tone than the Don Merton photograph of possibly the same bird reproduced here (Fig. 3), where the legs appear grey.

The bird in Fig. 3 is an adult, based on the deeply grooved upper mandible (see Barker et al. 2005). It is very unlikely that snipe could have bred ... arrived on Big South Cape I in Mar 1964 (Bell 1978), supporting the supposition that the 2 birds captured 4 months later were adult. The leg colour in other *Coenocorypha* snipe varies with locality (taxon), sex and individual, ranging from rich yellow in some adult males of Chatham Island snipe and Snares Island snipe (though typically paler yellow), through pale yellow (female Chatham Island snipe, both sexes of Auckland Island snipe and Campbell Island snipe *C. aucklandica perseverance* ... yellow (female Snares Island snipe), olive green (immature Snares Island and Chatham Island snipes) to grey (Antipodes Island snipe, immature Auckland Island and Campbell Island snipes) ... description of leg colour from Jacky Lee I does not conform with the leg colour of the adult bird photographed 53 years later on Big South Cape I.

... Lee and Big South Cape Is, as he presented a paper entitled "A new race of island snipe" to the Canterbury Branch of the Royal Society on 5 Jun 1940 (Anon. 1942); unfortunately the paper was never published, and no such text has been found among the Stead papers in the David Macmillan archive in Canterbury Museum. Stead in the 1930s had no way of knowing that most of the Jacky Lee I snipe ... were the bulk of them labelled as from the Snares Is (Table 2), but due to the Dominion Museum shifting premises and the intervention of World War II, the 546 bird skins (including 25 snipe) purchased from ... the 1950s (Sandy Bartle, pers. comm.).

... between snipe from Jacky Lee I and those from Big ... window for the introduction of weka to Jacky Lee I. They were not there in 1911, and are likely to ... c.1929. These same dates tragically bookend the extinction of snipe on Jacky Lee I.

**Scarcity of snipe on Jacky Lee and Big South Cape Islands**

Snipe were apparently uncommon on both Jacky ...

evident both from the multiple visits (at least 8) needed to collect 15 specimens between 1897 and ... only during 3 visits in 1911, despite looking for ... encounter rate was apparent on Big South Cape ... 1987). The obvious explanation for low encounter rates on Big South Cape I was the presence of ... Richdale 1945; Miskelly 1987; this paper). Weka ... kept in check by regular harvest for consumption, meaning that weka on Big South Cape were never likely to reach the densities considered responsible for eradicating snipe on Jacky Lee I (Wilson 1959). The low encounter rate for snipe on Jacky Lee I is likely to have been largely due to the notoriously impenetrable vegetation of supplejack (*Ripogonum scandens*) and *Muehlenbeckia* ... another factor in the apparently low density of snipe on Jacky Lee I may have been the presence of banded rails (McLean diary 1911), as the rails ... islands (Wilson 1959). As for the snipe, banded rails have not been recorded from Jacky Lee I since weka were introduced.

**Collection of specimens of the South Island snipe in 1931**

... makes it clear that all 5 clutches of eggs found on ... although only 4 of these are known to exist (all ... 2006). The clutch not accounted for was the 2nd clutch found on 2 Dec, which was "just hatching" ... (2006) presumed (or hoped) that these 2 eggs were left to hatch; their whereabouts is unknown, and it is plausible that they were unable to be blown ... diary is abhorrent to modern conservationist ... private collectors of bird eggs and skins in the ... (and publicly) concerned by increasing restrictions on their activities imposed by the Department of ... *Dominion* ... *The Press*, 14

Jun 1938; *New Zealand Herald*, 15 Jun 1938). It is unlikely that Wilson intended the quoted sections of his diary to be published; his 1959 book (p.49) made no reference to collection of snipe or their... to bird preservation. Stead, in contrast, apparently expected or intended his unedited diary to be read by others; he chose to make no reference to the 7 snipe specimens collected, and his references to collection of their eggs were concealed by the use...

... a period when most native birds were protected... 22. Stead was issued 40 bird collecting permits by...

Act, including one to collect "Jacques Island snipe" (author, *unpubl.*). Technically this permit was ultra vires, as by a quirk of legislation, the South Island... species to be protected, including Antipodes Island snipe, Auckland Island snipe, Chatham Island snipe and Snares Island snipe. As the "Jacques Island snipe" was not described until 1921, it was missed by the legislation, and so it was not given... Wildlife Act, 1953, was passed.

... from the likes of Travers, Dannefærd, John Bollons, ... 1890s. All these men were seeking to make a living, or at least supplement their income, in an era when few native bird species were protected. In contrast, Stead did not sell specimens, and his collecting in the 1930s was typically targeted at addressing particular taxonomic questions (author, *unpubl.*). The snipe specimens that he collected on Big South Cape I. in 1931 were evidently intended to be used as the basis for describing a new taxon (Anon. 1942), although the paper was never published.

The real villains in the extinction of the South Island snipe were the introduced weka and rats, or, more precisely, the people who chose or allowed them to be introduced. Were it not for the specimens collected by (or for) Travers, Stead and Wilson, the only physical evidence that would remain of... de Lange 2006; Ballance 2007; this paper) and 2 sad...

**Consequences of snipe extinction, and restorative actions**

... 2006; Ballance 2007; this paper) and 2 sad...

... struggle to name more than 3 (author, *pers. obs.*). The ecological role of snipe is poorly known (Miskelly *et al.* 2012), but their alter ego, the hakawai, remains... community (Miskelly 1987). The extinction of tutukiwi (snipe) and hakawai (nocturnal aerial displaying by snipe) from islands around Stewart... culture, but perhaps not irreversibly. Thirty Snares... alongside Big South Cape I, in Apr 2005 (Miskelly *et al.* 2012). Two of the birds released had the broken tail feathers characteristic of birds that had been performing hakawai aerial displaying (Miskelly 2005), thereby restoring the potential for hakawai to... west of Stewart I.

**CONCLUSIONS**

The South Island snipe was discovered on Jacky Lee... three study skins, 1 mounted skin and 1 alcohol specimen (24 birds), and 4 clutches of this species... Travers ever visited Stewart I or Jacky Lee I (the type locality for the species). The person who collected at least 15 snipe specimens from Jacky Lee I between 1897 and 1905 (including the type series for what is now known as *Coenocorypha iredalei*) is unknown, although it is now known that he also probably collected birds on Rangatira I in the Chatham Is in 1899 and 1900. The specimens were apparently all... Rothschild (5 specimens), the Dominion Museum (9 specimens), and Dr Benjamin Moorhouse (1 specimen, now in Canterbury Museum). The long time period that elapsed between collection and the... low likelihood that Travers collected the specimens himself, are the likely explanation for why only a third of these specimens were correctly labelled to locality.

... here, is the only known account of a South Island snipe being observed at the type locality. They were extirpated there by introduced weka between 1911 and 1929.

Snipe were 1st recorded on Big South Cape I in 1913. Seven specimens were collected there in 1931.

The taxon became extinct in, or soon after, 1964 due to predation by accidentally introduced ship rats

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I am grateful to curators who checked and photographed labels on snipe and fernbird specimens in their care: Joanne Travers correspondence, and Dianne Dannefaerd provided biographical notes on her grandfather Sigvard Dannefaerd. Thanks also to the plant curators and collection managers who provided details of Travers specimens in their care:

Stone for discussions and suggestions on the history of Dannefaerd. The critically important handwriting analysis on specimen labels was provided by Trish James, Senior Manuscript Librarian, Victoria University of Wellington, for assistance in tracking down obscure references.

I acknowledge with respect and sadness the passing of Don Merton on 10 Apr 2011. Don provided much assistance when I started research on snipe in the early 1980s, and remained passionately interested in progress with their conservation. I am grateful to Margaret Merton for her assistance with the Stewart Island snipe (then known as Stewart Island snipe) that he and his Wildlife Service colleagues desperately strived to rescue from extinction.

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