

SHORT NOTE

The supposed Macquarie Island parakeet in the collection of Canterbury Museum.

R. PAUL SCOFIELD

Canterbury Museum, Rolleston Avenue,
Christchurch 8001, New Zealand.

pscfield@canterburymuseum.com

The Macquarie Island parakeet (*Cyanoramphus erythrotis*) was discovered by the Russian Antarctic Expedition lead by T.T. von Bellingshausen (more correctly FF. von Bellingsgauzen), in 1820. This expedition collected 20 specimens and a single live individual (Bellingshausen 1831; Debenham 1945). Most items collected by Bellingshausen's expedition are held in the Zoological Institute of the Russian Academy of Sciences (Alimov *et al.* 1999). It is probable, however, that some were exchanged with British museums. In 1825, Vigors described a species, *Platycercus pacificus*, based on specimens apparently from a number of sources and locations in the Pacific in the BMNH, Linnaean Society Museum and live birds in his own collection (Vigors 1825; Fig.1).

The British Museum of Natural History (BMNH) holds three specimens of *Cyanoramphus erythrotis* (Salvadori 1891). Two (thought to be a male and female) are from the collection of Francois-Victor Massena, Duc De Rivoli, Prince d'Essling (1795-1863), the third is from the Zoological Society of London collection. According to Sharpe (1906), the Massena collection was obtained by the BMNH in 1846, thus the two specimens currently in the BMNH could not have been used by Vigors in describing *Platycercus pacificus*. Vigors gave his collection to the Zoological Society of London, which he was involved in setting up and its first secretary, in 1826. The collections of the Zoological Society of London subsequently were given to the BMNH (Sharpe 1906). Thus the specimen mentioned by Salvadori (1891) in the collection of the BMNH as being from the Zoological Society Museum is likely part of the type series for *Platycercus pacificus*. Either way, the taxon *pacificus* has not been subsequently recognised due to the type material coming from a number of different populations each of which was subsequently given a different name. The name *erythrotis* was given by Wagler to birds from Macquarie Island in his *Monographia Psittacorum* (Wagler 1832) and has been used ever since. The

specimen of *Cyanoramphus erythrotis* in the BMNH stated as being from the Zoological Society Museum (Salvadori 1891) has been designated the lectotype of *Cyanoramphus erythrotis* by Schodde & Mason (1997).

The Macquarie Island parakeet is believed to have become extinct about 1891 (Taylor 1979) based on the observations of Augustus Hamilton who saw no parakeets there in 1894 and stated that sealers on the island had not seen any for two years previously (Hamilton 1895). The last published sighting was in 1880 (Scott 1882, 1883).

Other than the 20 collected by Bellingsgauzen and distributed to the Institute of the Russian Academy of Sciences, The Linnaean Museum, Vigors (and subsequently the Zoological Society Museum), and the Massena collection (subsequently to the BMNH), the only other specimen of *Cyanoramphus erythrotis* thought to exist was in Canterbury Museum (Higgins 1999). In the A.C. O'Connor collection of bird skins held in Canterbury Museum is a specimen (AV2099) labelled "O'Connor 369". The O'Connor catalogue states "369: *Cyanoramphus erythrotis* Yellowish Parakeet. purch. H. Travers". Here I show that the specimen in Canterbury Museum is probably not from Macquarie Island.

A.C. O'Connor (1883-1951) was a private Wellington collector that was good friends with the great benefactor of Canterbury Museum, Edgar Stead (Dell 1975). O'Connor's catalogue also shows many exchanges of specimens with C.A. Fleming and R.A. Falla. He sold his substantial and valuable collection of bird skins to Canterbury Museum in 1942 during Falla's tenure as its director. In the Canterbury Museum catalogue, and on the Canterbury Museum label, the location Macquarie Island has been added in brackets and has a question mark. It was added by Ron Scarlett in the 1950's during his re-cataloguing of the avian collections and appears to have been based only on his understanding of the type locality and known distribution of *Cyanoramphus erythrotis*.

Henry H. Travers (1844-1928) was an important 19th Century naturalist, professional collector and taxidermist, and son of the prominent politician and botanist, William Travers. His catalogues indicate that O'Connor purchased from him eight Chatham Islands specimens (including two Chatham Island bellbirds (*Anthornis melanocephala*) and a Chatham Island rail (*Cabalus modestus*)), a Stewart Island kiwi (*Apteryx australis lawryi*), an Antipodes Island parakeet (*Cyanoramphus unicolor*) and the specimen of *Cyanoramphus erythrotis*.

Previous authors have suggested that H. H. Travers visited Macquarie Island. Cumpston (1968, p.147), in his book on the history of Macquarie Island, discussed the 1890 cruise of *Hinemoa* that H.H. Travers was undoubtedly on. By including

discussion of this cruise in his book Cumpston implied that this voyage visited Macquarie Island, but it seems clear it did not. The major paper discussing this voyage (Chapman 1891) makes no mention of visiting Macquarie Island. Thomas Kirk was present on this voyage and published an account of the botany of subantarctic islands (Kirk 1891) in which he does discuss the botany of Macquarie Island but does not state explicitly that he visited the island. Kirk's paper essentially summarised the observations of Scott in 1880 (Scott 1882, 1883) and, whilst Kirk mentions birdlife on each island he did visit on *Hinemoa*, in the section on Macquarie Island he makes no mention of birds, thus further signifying he didn't visit. H.H. Travers was supposed to visit Macquarie in 1894 in *Hinemoa* but the visit was cancelled because the ship they were trying to find (*The Antarctic*) was met in the Auckland Islands on the way to Macquarie (Cumpston 1968).

For these reasons, if this specimen was collected by H.H. Travers, it could not have been from Macquarie Island. It is most likely from Antipodes Islands which Travers visited in 1890 and 1894 (Cumpston 1968). Indeed another of the specimens purchased from Travers by O'Connor was an Antipodes Island parakeet.

I consider the uncertainty over the location given to this specimen came about through taxonomic confusion over the correct name for the taxon. The name *hochstetteri* for the Antipodes Island parakeet was published as a text note by Reischek in the Transactions of the New Zealand Institute (Reischek 1889). Salvadori (1891), in his *Catalogue of the Psittaci, or Parrots in the Collection of the British Museum*, mentions *hochstetteri* but states that "he is not acquainted with the...species and therefore cannot place it in the key. It seems allied to *C. erythrotis* from Macquarie Island".

Forbes (1892) did not mention Reischek's *hochstetteri* described three years previously, and recognised instead the birds on Macquarie and Antipodes Islands as being the same taxon. He also incorrectly quoted Chapman (1891) that parakeets were abundant on Campbell Island – the only published record of parakeets on this island (parakeets are not mentioned by Filhol (1885), the major work on historic Campbell Island). It seems Forbes (1892) meant parakeets were abundant on the Auckland Islands, a statement Chapman (1891) did make. Rothschild (1893) accepted Forbes's assertion that the birds on Macquarie and Antipodes Islands were the same, and synonymises *hochstetteri* with *erythrotis*. No list of New Zealand birds was produced in the 1890s, and Hutton and Drummond (1904) did not include *hochstetteri* but stated *erythrotis* occurred on Macquarie and Antipodes Islands.

Significantly they also give a common name for the species "Yellowish Parakeet", which is the same as that used in the O'Connor catalogue. Hutton's handwritten notes that form the basis of this book (Canterbury Museum unpublished records) state the synonymy is due to Rothschild. As shown above, this is incorrect and probably reflects Hutton's contempt for Forbes. The 1909 *Handlist of the birds of New Zealand* only mentions *erythrotis* (Dominion Museum 1909).

Thus, it seems most likely that both Travers and O'Connor considered *erythrotis* the correct name for a specimen of parakeet collected by Travers during his 1890 or 1894 visits to Antipodes Islands. It is worth noting that Oliver (1955) did not recognise *hochstetteri* based on J.D. MacDonald's examination of the two specimens in the BMNH. Indeed the status of the species seems to have been a New Zealand - Australia split with New Zealand authorities (other than Oliver 1930) only recognising *erythrotis* till the 1953 checklist (Fleming 1953), whilst Australians used *hochstetteri* throughout the early 20th century (i.e. Mathews 1927).

In order to further clarify the status of this specimen I compare published measurements for *Cyanoramphus erythrotis* with those from the Canterbury Museum specimen measured by myself (Table 1). These measurements, especially culmen length, suggest that this specimen is more likely to be from Antipodes Islands.

There are two less likely possibilities regarding the confusion over the provenance of this specimen: 1 - the specimen was labelled as *C. erythrotis* as a deliberate subterfuge; or 2 - it was collected by someone other than Travers. Deliberate subterfuge is possible as Travers made his living dealing in bird specimens. By 1894 it was known that the Macquarie Island parakeet was extinct and thus specimens of this species would be highly valuable. If Travers had implied he had visited Macquarie Island in 1890 this specimen would be one of the last ever seen and thus its value would be greater. Similarly it is possible the specimen was collected by someone else for Travers and then on sold to O'Connor. This would explain why no locality was given as Travers would have used the name *erythrotis* to specifically identify the specimen as coming from Macquarie Island. I consider neither of these possibilities likely as it seems probable O'Connor would have recognised this species was extinct in his catalogue. He also seems to have assiduously collected only New Zealand species. A Macquarie Island specimen would have been out of place in his collection.

This specimen was sampled by Boon *et al.* (2001) who examined the genetics of *Cyanoramphus*. The mitochondrial DNA from this specimen led Boon *et*

Table 1 Measurements of CM AV2099 compared with published measurement of specimens of *C. erythrotis* and *hochstetteri*. AMNH specimen measurements from Forshaw and Cooper (1989); BMNH specimen measurements from Salvadori (1891); *hochstetteri* measurements from Higgins (1999).

	<i>erythrotis</i>				<i>hochstetteri</i>		?
	AMNH 1	AMNH 2	BMNH a	BMNH b	BMNH c	Mean (M, F)	CM AV2099
Length (cm)			30.5	30.5	30.5		
Culmen (mm)			18.0	20.3	-	18.6, 16.2	14.7
Tarsus (mm)	21	24	20.1	20.8	-	24.5, 23.1	23.4
Tail (mm)	128	158	137			126.3, 134.5	136
Wing (mm)	142	145	142			138.2, 132.8	138

al. (2001) to conclude that *erythrotis* and *hochstetteri* were extremely closely related and may in fact comprise a single taxon. I conclude the doubt over this specimen's provenance negates these conclusions and I recommend that, until further work is done on the morphology and DNA of *C. erythrotis*, the Macquarie Island parakeet be considered a separate taxon.

This example serves to demonstrate the importance of careful labelling museum specimens. Even when a specimen is labelled with the name of an apparently endemic taxon this is not sufficient evidence that the specimen actually came from the type locality.

LITERATURE CITED

- Alimov, A. F.; Tanasijtshuk, V. N.; and S. D. Stepan'yants. The Collections of the Zoological Institute of the Russian Academy of Sciences as the Basis for Studies on Species Diversity. *Russian Journal of Zoology* 3: 349-368.
- Bellingsgauzen, F.F. von 1831 [The two-fold expedition in the Southern Ocean and the voyage round the world during 1819, 20 and 21, accomplished by the sloops *Vostok* and *Mirny* under the command of Captain Bellingshausen, commander of the sloop *Vostok*. The sloop *Mirny* was commanded by Lieutenant Lazarev](in Russian). Published by command of His Imperial Majesty, Ivan Glazunov, St Petersburg. 397p. & 326p.
- Boon, W.M.; Kearvell, J.; Daugherty, C. H.; Chambers, G. K. 2001. Molecular systematics and conservation of kakariki (*Cyanoramphus* spp.). *Science for Conservation* 176: 1-46.
- Chapman, F. R. 1891. The outlying islands south of New Zealand. *Transactions and Proceedings of the New Zealand Institute* 23: 491-522.
- Cumpston, J.S. 1968. *Macquarie Island*. Australian National Antarctic Research Expedition Scientific Reports, Series A (1) Publication No. 93. Antarctic Division, Department of External Affairs, Melbourne. 380 pp.
- Debenham, F, (ed), 1945 *The Voyage of Captain Bellingshausen's to the Antarctic Seas, 1819-1821*, Hakluyt Society, London.
- Dell, R.K. 1975. A.C. O'Connor (1883-1951). *New Zealand's Nature Heritage 101*: Science Gallery endcover.
- Dominion Museum 1909. *Handlist of the birds of New Zealand*. Dominion Museum, Wellington
- Filhol, H. 1885. Oiseaux. Mission de l'Ile Campbell, passage de Venus sur le soleil, tome III, Ile partie, Academie des Sciences, Paris: 35-64 (translation to English by Translation Service, Department of Internal Affairs, Wellington).
- Finsch, O. 1868. Die Papageien. Vol 2. Leiden, E.J. Brill.
- Fleming, C.A. (convener). 1953. *Checklist of New Zealand birds*. Auckland, Ornithological Society of New Zealand.
- Forbes, H.O. 1892. Notes on a species of *Playcercus* (*P. erythrotis*, Wagl.) from Antipodes Island. *Transactions and Proceedings of the New Zealand Institute* 24: 190-191.
- Forshaw, J.M.; Cooper, W.A. 1989. *Parrots of the world*. Lansdowne, Sydney
- Hamilton, A. 1894. Notes on a visit to Macquarie Island. *Transactions and Proceedings of the New Zealand Institute* 27: 559-79.
- Higgins, P.J. 1999. *Handbook of Australian, New Zealand and Antarctic birds*. Vol 4. Oxford, Melbourne.
- Hutton, F.W. & J. Drummond 1904. *The animals of New Zealand*. Whitcombe & Tombs, Christchurch.
- Kirk, T. 1891. Report on a botanical visit to Lord Auckland, Campbell, Antipodes, and other Antarctic islands. *Journal of the Linnean Society of Botany*. 28 :327-330.
- Mathews, G.M. 1927. *Systema Avium Australasianarum*. Part 1. British Ornithologist's Union, London.
- Oliver, W.R.B. 1930. *New Zealand birds*. Fine Arts, Wellington.
- Oliver, W.R.B. 1955. *New Zealand birds*. 2nd ed. Reed, Wellington.
- Reischek, A. 1889. Notes on the islands to the south of New Zealand. *Transactions and Proceedings of the New Zealand Institute* 21: 378-389.
- Rothschild, W. 1894. [No Title]. *Proceedings of the Zoological Society* 1893: 529-530
- Salvadori, T. 1891. *Catalogue of the Psittaci, or Parrots in the Collection of the British Museum*. Volume 20 of Catalogue of the Birds in the British Museum. BMNH, London.
- Scott, J.H. 1882. On the birds of Macquarie Island (title only). *Transactions and Proceedings of the New Zealand Institute* 14: 561
- Scott, J.H. 1883. On the flora and fauna of Macquarie Island. *Transactions and Proceedings of the New Zealand Institute* 15: 484-93
- Schodde, R & Mason, I.J. 1997. *Zoological Catalogue of Australia*. Volume 37.2. Aves (Columbidae to Coraciidae). CSIRO, Canberra.

Sharpe, R.B. 1906. The history of the collections contained in the natural history departments of the British Museum. Volume 2. BMNH, London.

Taylor, R.H. 1979. How the Macquarie Island parakeet became extinct. *New Zealand Journal of Ecology* 2: 42-45.

Vigors, N.A. 1825. Descriptions of some rare, interesting, or hitherto uncharacterised subjects of Zoology. *Zoological Journal* 1: 526-542.

Wagler, J.G. 1832. *Monographia Psittacorum*. Abhandlungen der mathematisch-physikalischen Classe, Königlich-Bayerische Akademie der Wissenschaften 1: 463-750

Keywords *Cyanoramphus erythrotis*, *Cyanoramphus hochstetteri*, Macquarie Island, Antipodes Island, extinction, mitochondrial DNA