

SHORT NOTE

Clarification of the status of the type specimens of *Apteryx haastii* Potts 1872, the great spotted kiwi

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On 2 August 1871, Thomas Henry Potts read a paper before the Philosophical Institute of Canterbury describing *Apteryx haastii*, which was subsequently published in *Transactions of the New Zealand Institute* (Potts 1872). Potts was a great friend of Sir Julius von Haast, founding director of the Canterbury Museum (Haast 1948). It was common practice for patrons of science to assign staff or friends to describe new species received by their institutions, especially when the designated author could give a patronymic specific name. Potts stated that the two specimens he based his description upon were amongst separate consignments of skins received from Westland by the Canterbury Museum in the summer of 1870-1871. The collection localities of the two specimens were made clear in Potts (1873: 195), when he mentions that the localities were shown to him during the summer of 1872-73 by the collector William Docherty when Potts visited the West Coast.

Exactly which specimens are the types has been the source of some confusion. When R.A. Falla began his catalogue of the birds in Canterbury Museum (Falla 1942) there were only two specimens in Canterbury Museum that did not have specific collection and/or locality data (Figure 1). In this handwritten catalogue Falla states that he recognised these two mounted specimens (O1230.0 and O123.1) were the type specimens by comparing them with "Hutton's photographs". It is not clear exactly which photographs Falla was referring to but the portrait of T.H. Potts with a great spotted kiwi mount reproduced as the frontispiece in Hutton and Drummond (1904) may identify one of the original specimens. A comparison of all mounted specimens currently in the collection of Canterbury Museum identifies this specimen (by its pose) as being O1230.1. Using the argument that Potts would choose to be photographed with what

he considered the type specimen of *A. haastii* this would identify O1230.1 as being a type. Furthermore measurements strongly support the assertion that O1230.0 and O123.1 are the two specimens described by Potts (Table 1).

A new card catalogue system and ledger book register were instigated by R.R. Forster in 1948. At this time specimen "O1230.0" was renumbered "Av2829" and specimen "O1230.1" was renumbered "Av2828". At some point in time on these new cards and in the register, it was recorded that AV2828 was the "holotype" and AV2829 the "paratype", but these designations were subsequently crossed out and reversed (Figures 2, 3 & 4). Judging by the handwriting I believe both the original designation and the redesignation were made by Ron Scarlett, long-time Curator of Osteology at Canterbury Museum.

In Potts' description "Specimen No. 1" is "take[n] to be an adult female" (Potts 1872). It could be supposed that, as Av2829 was labelled a female and had the designation O1230.0, it was inferred by Scarlett to be Potts' "Specimen No. 1". If Scarlett, incorrectly, believed that the first specimen mentioned in a description was the holotype this would explain why he designated this specimens so. Using a similar argument, and as Av2828 was labelled male, it could only be "Specimen number 2" which isn't given a specific sex in Potts' description. However the sex of this specimen is incorrect. R.A. Falla seems to have been the first to recognise this error by recording the original label sex in his handwritten catalogue but putting his inferred sex in brackets with a question-mark, i.e. "♂(♀?)". Male *A. haastii* bills (tip to front edge of cere) range from 87.3 to 99.9mm (mean 96.0) and females range from 105 to 131mm (mean 125.8; Marchant & Higgins 1990). Using similar methodology I found Av2828's bill to measure 117.5 mm and, thus, be a female (Table 1).

Potts (1873: 195) indicates that Docherty told him that one specimen was collected "in the bush far up the Okarita [o] River" and the other in "dense bush between the eastern shore of Lake Mapourika and the snowy range of which Mt Cook is monarch". In the original description Potts states that the original specimen (No. 1) was labelled by the collector as having been "obtained high on the ranges". The source of the Okarito River is Lake Mapourika which is below 100 meters so "in the bush far up the Okarita [o] River" could hardly be called "high on the ranges". Thus it would seem that it was Potts's "Specimen No. 1." that was collected in "dense bush between the eastern shore of Lake Mapourika and the snowy range of which Mt Cook is monarch" and it was "Specimen No. 2."

that was collected "in the bush far up the Okarita [o] River".

Freeman & Tunnicliffe's (1997) interpretation of the status of the vertebrate types in Canterbury Museum assigns Av2829 as the "holotype" and Av2828 as the "paratype". This allocation appears to be due simply to accepting the evidence given on the labels. According to the *International Code of Zoological Nomenclature* (International Commission on Zoological Nomenclature 1999), it is not possible to designate a holotype *post hoc*. As the description by Potts (1872) makes no distinction between the two type specimens they are simply syntypes. Therefore the published allocations of holotype and paratype are incorrect and invalid.

Using the arguments put forward above I conclude the correct status and collection localities of the two type specimens of *Apteryx haastii* Potts 1872 held in Canterbury Museum are:

Pott's "Specimen No. 1."

Catalogue number: Canterbury Museum Av2829 (formerly O1230.0)

Status: Syntype

Collector: William Docherty

Sex: Female

Collection locality: "Dense bush between the eastern shore of Lake Mapourika and the snowy range of which Mt Cook is monarch" (given in Potts 1874). Approximately 43°21'S, 170°16'E

Date of collection: Austral summer 1870-1871

Pott's "Specimen No. 2."

Catalogue number: Canterbury Museum Av2828 (formerly O1230.1)

Status: Syntype

Collector: William Docherty

Sex: Female (has been labeled male in the past)

Collection locality: "in the bush far up the Okarita [o] River". (given in Potts 1873). Approximately 43°17'S, 170°14'E

Date of collection: Austral summer 1870-71

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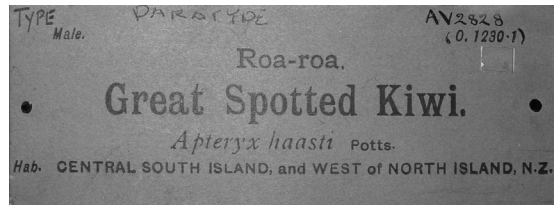


Figure 3 Label on Av2828. The handwritten word "Type" is in Falla's handwriting, the word "Paratype" was written by R. Scarlett as was the Av number. A red sticker indicating the type status of the specimen was attached in the 1990's.

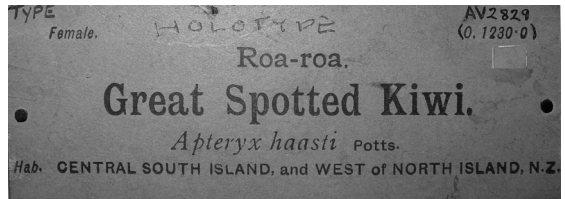


Figure 4 Label on Av2829. The handwritten word "Type" is in Falla's handwriting, the word "Holotype" was written by R. Scarlett as was the Av number. A red sticker indicating the type status of the specimen was attached in the 1990's.

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