

The extant type specimens of birds from New Zealand and the Society Islands collected on Cook's second voyage and described by Anders Sparrman in *Museum Carlsonianum* (1786-1789)

DAVID G. MEDWAY

25A Norman Street, New Plymouth, New Zealand. dmedway@xtra.co.nz

Abstract Specimens of 12 species of birds from New Zealand and the Society Islands collected during Cook's second voyage round the world (1772-1775) were described and illustrated by Anders Sparrman in *Museum Carlsonianum* (1786-1789). The Swedish Museum of Natural History in Stockholm holds six specimens considered to be type specimens of some of those species. However, documentation discussed here indicates only three, spotted shag (*Stictocarbo punctatus*) and red-crowned parakeet (*Cyanoramphus novaeseelandiae novaeseelandiae*) from New Zealand, and Tahiti lorikeet (*Vini peruviana*) from the Society Islands, are type specimens.

Medway, D.G. 2004. The extant type specimens of birds from New Zealand and the Society Islands collected on Cook's second voyage and described by Anders Sparrman in *Museum Carlsonianum* (1786-1789). *Notornis* 51(3): 131-135

Keywords Cook's second voyage; Sparrman; *Museum Carlsonianum*; New Zealand; Society Islands; extant type specimens

Anders Sparrman joined Cook's second voyage round the world (1772-1775) at Cape Town in November 1772 as an assistant to Reinhold Forster, the official naturalist on the voyage. Sparrman left the expedition on its return to Cape Town in March 1775 in order to continue his interrupted African studies.

Sparrman wrote later that he was to receive "part of such natural curiosities as they (the Forsters) might chance to collect" in the course of their voyage with Cook (Sparrman 1786: I: 84). A few days after his return to Cape Town, Sparrman informed fellow naturalist Carl Thunberg that he had "a collection of birds stuffed or in spirits, which I intend to make known" (Karsten 1957). Sparrman took this collection of birds, and others that he obtained in the course of his African studies, to Sweden when he returned in July 1776.

These birds were in the private collection of Johan Gustaf von Carlson at Mälby in Södermanland when Sparrman described and illustrated 100 specimens from there in his *Museum Carlsonianum*, a work comprising four fascicules each containing 25 species (Sparrman 1786-1789). Included were descriptions and illustrations based on specimens of 12 species of birds from New Zealand and the Society Islands that had been collected during Cook's second voyage, namely:

Part 1 (1786): No. 4. *Sitta caffra* (= Tahiti reed-warbler *Acrocephalus caffer caffer*); No. 5. *Certhia melanura* (= bellbird *Anthornis melanura*); No. 10. *Pelicanus punctatus* (spotted shag *Stictocarbo*

punctatus); No. 14. *Rallus australis* (western weka *Gallirallus australis australis*); No. 23. *Muscicapa nigra* (Tahiti flycatcher *Pomarea nigra nigra*).

Part 2 (1787): No. 27. *Psittacus cyaneus* (Tahiti lorikeet *Vini peruviana*); No. 28. *Psittacus Novae Zelandiae* (= red-crowned parakeet *Cyanoramphus novaeseelandiae novaeseelandiae*); No. 32. *Cuculus taitensis* (= long-tailed cuckoo *Eudynamis taitensis*); No. 33. *Sitta chloris* (= South Island rifleman *Acanthisitta chloris chloris*); No. 45. *Tanagra capensis* (= South Island piopio *Turnagra capensis capensis*); No. 47. *Muscicapa fuliginosa* (= South Island fantail *Rhipidura fuliginosa fuliginosa*).

Part 3 (1788): No. 69. *Turdus australis* (South Island robin *Petroica australis australis*).

Carlson died in December 1801. Subsequently, about 100 specimens from his large collection of birds went to the Royal Swedish Academy of Sciences (Quensel 1802, addendum). The Academy's natural history collections were the foundation of the Swedish Museum of Natural History. Another 185 specimens went to the University of Uppsala (Thunberg 1819), while the remainder apparently went mainly to the private museums of Gustaf von Paykull and A. U. Grill. The Paykull collection was donated to the Museum in 1819, and transferred there in 1820, while the Grill collection was donated to the Museum in 1828 (Löwegren 1952). As a result of these events, some of the bird specimens that were in the Carlson collection are now in the Museum.

Sundevall (1857) considered that the Museum then held 22 birds that appeared to be the types of those illustrated in *Museum Carlsonianum*, including *Acrocephalus c. caffer*, *Anthornis melanura*,

Stictocarbo punctatus, *Pomarea n. nigra*, *Vini peruviana*, *Cyanoramphus n. novaezelandiae*, *Acanthisitta c. chloris*, and *Turnagra c. capensis* from New Zealand or the Society Islands. Later, Gyldenstolpe (1926) reported that all of these supposed type specimens, with the exception of *Anthornis melanura*, still survived. However, the *Acanthisitta c. chloris* specimen that Gyldenstolpe (1926) noted was in a very bad state of preservation, was not among those I examined at the Museum in 1974, but the other six were and still are (Göran Frisk *per* Bo Sällström pers. comm.).

Entries in one of the catalogues compiled by Conrad Quensel (Quensel 1802 and addendum), curator of the Academy's museum at the time, indicate that all of the Carlson specimens used by Sparrman as the basis for his descriptions and illustrations of the New Zealand and Society Islands species included in *Museum Carlsonianum* were, in June 1802, selected by Quensel for the museum of the Academy. Accordingly, only the specimens of those species that went from Carlson's collection to the Academy qualify for consideration as type specimens.

It is important, historically and scientifically, to know what type specimens collected during Cook's voyages are still extant. It is also important to correct the record if it can be shown that any extant specimen, hitherto believed to be a type, does not have that status. The documentation discussed here indicates that only three of the six specimens referred to, namely, *Stictocarbo punctatus* and *Cyanoramphus n. novaezelandiae* from New Zealand, and *Vini peruviana* from the Society Islands, can be shown to be type specimens.

Spotted shag

There was only one specimen of *Stictocarbo punctatus* in Carlson's bird collection in June 1802. It was included in Quensel's catalogue of the collection as "*Pelecanus punctatus*" (Quensel 1802: 8). There is no reason to doubt that Sparrman's description and illustration of *Pelecanus punctatus* in 1786 were based on it. The specimen was included among those that Quensel selected in June 1802 for the museum of the Academy (Quensel 1802, addendum). It was included as "*Pelecanus punctatus*" in a list, compiled in June 1803, of the birds received by the Academy from Carlson's collection (Anon.1803). Also in 1803, Quensel included the specimen in his catalogue of the mammals and birds in the Academy's museum. He attributed the specimen to Sparrman when describing it as "*Pelecanus punctatus*. S.N. 574.20. Nova Zeland. 1. Sparrman. Mus. Carls. t. 10" (Quensel 1803). Quensel's reference to "S.N. 574.20" indicates that he identified this specimen with the *Pelecanus punctatus* of Gmelin (1788-1793: II: 574,

n.20) whose account of the taxon was based solely on that of Sparrman. In August 1805, the specimen was included as "*Pelecanus punctatus*" in a list of the bird specimens that had been received by the Academy from Carlson's collection (Anon 1805). The specimen was noted as being in poor condition at that time, but survived to appear in Sundevall's catalogue as "*Graculus punctatus*. 54. typ. Sparrman. Mus. Carlss. Nov. Zeelandia. Prof. Sparrman" (Sundevall 1856, Part 2). A type specimen of *Stictocarbo punctatus*, presumably this one, was recorded as being in the Museum in 1857 (Sundevall 1857). Gyldenstolpe (1926) noted that the type was a Sparrman specimen "Ex. Mus. Carlsonianum. No. 54". The specimen (mounted) is still in the Museum (Medway 1976). It bears a label: "*Graculus punctatus*. Type. fig Mus. Carls. Nov. Zeelandiae. Prof. Sparrman. No. 54". This specimen is the holotype of *Stictocarbo punctatus* (Sparrman, 1786).

Red-crowned parakeet

Two specimens of *Cyanoramphus novaezelandiae* were in Carlson's bird collection in June 1802. They were included in Quensel's catalogue of the collection as "*Psittacus pacificus* vel nov. Zeelandiae. M.C.28" (Quensel 1802: 1). There is no reason to doubt that Sparrman's description and illustration of *Psittacus novaezelandiae* in 1787 were based on one or both of them. Both specimens were included among those that Quensel selected in June 1802 for the museum of the Academy (Quensel 1802, addendum). They were described then as "*Psittacus pacificus* vel Nae Zelandae. M.C.G.E" (Quensel 1802, addendum). They were included as "*Psittacus pacificus*" in a list, compiled in June 1803, of the birds received by the Academy from Carlson's collection (Anon. 1803). Also in 1803, Quensel included both specimens in his catalogue of the mammals and birds in the Academy's museum. He attributed the specimens to Sparrman when describing them as "*Psittacus pacificus*. S.N. p. 329. Ins. austr. 2. Sparrman" (Quensel 1803). Quensel's reference to "S.N. p.329" indicates that he identified these specimens with the *Psittacus pacificus* of Gmelin (1788-1793: I: 329, n.88). In August 1805, at least one of these specimens was included as "*Psittacus pacificus*" in a list of the bird specimens that had been received by the Academy from Carlson's collection (Anon. 1805), but only one of them, the female, was still there in 1856. That specimen appears in Sundevall's catalogue as "*Psittacus novaezeelandiae*. 1185. E. Nova Zeelandia. Mus. Ac. Vetus ex Coll. Carlson. (typus ad Mus. Carlss. 28)" (Sundevall 1856, Part 2). A type specimen of *Cyanoramphus novaezelandiae*, presumably this one, was recorded as being in the Museum in 1857 (Sundevall 1857). Gyldenstolpe (1926) noted that the type was "Coll. Acad. Vet. (Ex. Mus.

Carlsonianum). No. 1185 ". The specimen (mounted) is still in the Museum (Medway 1976). It has a label that reads "*Psittacus pacificus*. E. Type Mus. Carls. 28". This specimen is a syntype of *Cyanoramphus n. novaezelandiae* (Sparrrman, 1787).

Tahiti lorikeet

There was only one specimen of the bird Sparrrman described as *Psittacus cyaneus* in Carlson's bird collection in June 1802. It was an immature *Vini peruviana* that Sparrrman must have thought was a different species. The specimen is listed in Quensel's catalogue of the collection as "*Psittacus cyaneus* vel *taitianus* M.C. 27" (Quensel 1802: 1). There is no reason to doubt that Sparrrman's description and illustration of *Psittacus cyaneus* in 1787 were based on it. The specimen was included among those that Quensel selected in June 1802 for the museum of the Academy (Quensel 1802, addendum). It is included as "*Psittacus taitianus* vel *cyaneus*" in a list, compiled in June 1803, of the birds received by the Academy from Carlson's collection (Anon.1803). Also in 1803, Quensel included the specimen in his catalogue of the mammals and birds in the Academy's museum. He attributed the specimen to Sparrrman when describing it as "*Psittacus cyaneus*. Ins. austr. 1. Sparrm." (Quensel 1803). In August 1805, the specimen was included as "*Psittacus cyaneus*" in a list of the bird specimens that had been received by the Academy from Carlson's collection (Anon 1805). It appears in Sundevall's catalogue as "*Psittacus cyaneus*. 27. jun? Taiti. Acad. Coll. vet." (Sundevall 1856, Part 2). A type specimen of Sparrrman's *Psittacus cyaneus*, presumably this one, was recorded as being in the Museum in 1857 (Sundevall 1857). Gyldenstolpe (1926) noted that the type was "Coll. Acad. Vet. (Ex. Mus. Carlsonianum). No. 27". The specimen (mounted) is still in the Museum. It has a label that reads "*Psittacus cyaneus* junior. Otahite. Coll. Ac. Vetus. Av. Ex No. 27". This specimen is the holotype of *Psittacus cyaneus* (Sparrrman, 1787), which is a junior synonym of *Vini peruviana* (P.L.S. Müller, 1776).

The Carlson collection also included a specimen that was listed as "*Psittacus taitianus*" (Quensel 1802: 1). Presumably, this was a specimen of an adult Tahiti lorikeet. There is no reason to doubt that it had also been obtained in the Society Islands during Cook's second voyage, and deposited by Sparrrman in the Carlson collection with other bird specimens from that source. The specimen was included among those that Quensel selected in June 1802 for the museum of the Academy (Quensel 1802, addendum). It is included as "*Psittacus taitianus*" in a list, compiled in June 1803, of the birds received by the Academy from Carlson's collection (Anon.1803). Also in 1803, Quensel included the specimen in his catalogue of the mammals and birds in the

Academy's collection. He attributed the specimen to Sparrrman when describing it as "*Psittacus taitianus*. S.N. 329.91. Ins. austr. 1. Sparrm." (Quensel 1803). Quensel's reference to "S.N.329.91" indicates that he identified this specimen with the *Psittacus taitianus* of Gmelin (1788-1793: I: 329-330, n.91). The specimen was still in the Museum in 1856. It appears in Sundevall's catalogue as "*Psittacus taitianus*. 26. G. Taiti. Acad. Coll. vet." (Sundevall 1856, Part 2). I did not see this specimen when I was at the Museum in 1974. I do not know if it still survives.

The adult *Vini peruviana* was not described by Sparrrman in *Museum Carlsonianum*, probably because he knew that the species represented by his specimen had already been described by Buffon as "L'Arimanon" and illustrated by Martinet as "Petite Perruche de l'Isle de Taiti" (Buffon *et. al.* 1770-1786: 7: 141-142, Pl. 455). The Carlson specimen does not have any taxonomic status, but it is of historic importance as a previously unrecognised specimen of *Vini peruviana* that was almost certainly collected in the Society Islands during Cook's second voyage.

Tahiti reed-warbler

There was only one specimen of *Acrocephalus caffer* in Carlson's bird collection in June 1802. It was included in Quensel's catalogue of the collection as "*Sitta Caffra*" (Quensel 1802: 3). There is no reason to doubt that Sparrrman's description and illustration of *Sitta caffa* in 1786 were based on it. The specimen was included among those that Quensel selected in June 1802 for the museum of the Academy, but it was noted as being in a mutilated condition even then (Quensel 1802, addendum). It is included as "*Sitta Caffra*" in a list, compiled in June 1803, of the birds received by the Academy from Carlson's collection (Anon 1803). However, this specimen was not included in Quensel's catalogue of the mammals and birds in the Academy's museum in the same year (Quensel 1803). In August 1805, it was noted that the specimen of "*Sitta caffa*" received by the Academy from Carlson's collection had been "destroyed", and no longer was in the collection (Anon. 1805). Therefore, the only known Sparrrman specimen of *Acrocephalus caffer* had ceased to exist by August 1805, probably even before the end of 1803. It was the holotype of *Acrocephalus c. caffer* (Sparrrman, 1786).

Sundevall included a specimen of *Acrocephalus caffer* among the specimens then in the Museum that he considered were the types of birds illustrated in *Museum Carlsonianum* (Sundevall 1857). However, this mounted specimen, which has hitherto been considered to be Sparrrman's type of *Sitta caffa*, most recently by Holyoak & Thibault (1984: 153), cannot be that bird. The early history of this specimen is not known. It has a label that reads

"*Hybristes longirostris*. *Sitta caffra*. Sp.M.Carls. type. Taiti. Mus. Paykull (ex Mus. Carlss.)". The specimen is included in Sundevall's catalogue as "*Hybristes longirostris*. 66. *Sitta caffra* Sp: M.Carls. 4. typ. Taiti. Mus. Payk (ex M. Carlss.)" (Sundevall 1856: Part 1). Gyldenstolpe (1926) noted that it was "Mus. Paykull (ex. Mus. Carlsonianum). No. 66".

It seems that Sundevall (1857) and Gyldenstolpe (1926) identified the specimen of *Acrocephalus caffer* from the Paykull collection as Sparrman's type in the belief that it had been obtained by Paykull from the Carlson collection. However, the only known Carlson specimen of *Acrocephalus caffer* went to the Academy, and was "destroyed" by August 1805. Accordingly, the Paykull specimen in question cannot be the type of *Acrocephalus c. caffer* (Sparrman, 1786). It does not have any taxonomic status. Different opinions have been expressed about its subspecific identity. Stresemann (1950) considered that the specimen, supposed to have been collected in Tahiti, more probably was shot at Raiatea, while Holyoak & Thibault (1978: 124) expressed the view that it agrees with Tahiti birds.

Tahiti flycatcher

There was only one specimen of *Pomarea nigra* in Carlson's bird collection in June 1802. It was included in Quensel's catalogue of the collection as "*Muscicapa nigra*" (Quensel 1802: 17). There is no reason to doubt that Sparrman's description and illustration of *Muscicapa nigra* in 1786 were based on it. The specimen was included among those that Quensel selected in June 1802 for the museum of the Academy (Quensel 1802, addendum). It is included as "*Muscicapa nigra*" in a list, compiled in June 1803, of the birds received by the Academy from Carlson's collection (Anon.1803). Also in 1803, Quensel included the specimen in his catalogue of the mammals and birds in the Academy's museum. He attributed the specimen to Sparrman when describing it as "*Muscicapa nigra*. Ins. Societ. 1. Sparrm. Mus. Carls. t. 23" (Quensel 1803). In August 1805, the specimen was included as "*Muscicapa nigra*" in a list of the bird specimens that had been received by the Academy from Carlson's collection (Anon 1805). However, the specimen was not included by Sundevall in his catalogue (Sundevall 1856, Part 1), so it must have ceased to exist by then. It was the holotype of *Pomarea n. nigra* (Sparrman, 1786).

Sundevall did include two specimens in his catalogue, described as "*Pomarea nigra*. 354, 355. GG (niger). Taiti. Mus. Paykull". The early history of these specimens is not known. Specimen no. 354 was apparently disposed of in 1859 (Sundevall 1856, Part 1). The extant Paykull specimen has been regarded as the type of Sparrman's *Muscicapa nigra*, most recently by Holyoak & Thibault (1984: 167). It has a label that reads "*Pomarea nigra* (Sparrm).

Male. Taiti. Mus. Paykull. 355". Gyldenstolpe (1926) noted that the apparent type was "Coll. Mus. Paykull (Ex. Mus. Carlsonianum). No.355".

An apparent type specimen of *Pomarea nigra* was recorded as being in the Museum in 1857 (Sundevall 1857). It seems that Sundevall identified one of the specimens of *Pomarea nigra* from the Paykull collection as Sparrman's type in the belief, shared by Gyldenstolpe (1926), that it had been obtained by Paykull from the Carlson collection. However, the only known Carlson specimen of *Pomarea nigra* went to the Academy, and no longer existed by 1856. Accordingly, the Paykull specimen in question cannot be the type of *Pomarea n. nigra* (Sparrman, 1786). It does not have any taxonomic status.

South Island piopio

My earlier view, that two specimens of this taxon were in the Carlson collection, and that one of them went to the Academy and the other to Grill and thence to the Museum (Medway 1976), was incorrect. Quensel's catalogue (Quensel 1802: 14) indicates that there was only one specimen of *Turnagra capensis* in Carlson's collection in June 1802. It is included there as "*Turdus crassirostris* vel *Tanagra capensis*". There is no reason to doubt that Sparrman's description and illustration of *Tanagra capensis* in 1787 were based on it. The specimen was included among those that Quensel selected in June 1802 for the museum of the Academy (Quensel 1802, addendum). It is included as "*Turdus crassirostris* vel *Tanagra capensis*" in a list, compiled in June 1803, of the birds received by the Academy from Carlson's collection (Anon.1803). However, this specimen is not included in Quensel's catalogue of the mammals and birds in the Academy's museum in the same year (Quensel 1803). In August 1805, it was noted that the specimen of "*Turdus crassirostris* (vel *Tanagra capensis*)" received by the Academy from Carlson's collection had been "destroyed", and was no longer in the collection (Anon. 1805). Therefore, the only known Sparrman specimen of *Turnagra capensis* had ceased to exist by August 1805, probably even before the end of 1803. It was the holotype of *Turnagra c. capensis* (Sparrman, 1787).

A mounted specimen of *Turnagra capensis* in the Museum has hitherto been regarded as the type of Sparrman's *Tanagra capensis*, most recently by Medway (1976). The early history of this specimen is not known. It has a label that reads "*Otagon crassirostris*. New Zealand. Mus. Grill. 4353". Sundevall included it in his catalogue as "*Otagon crassirostris*. 4353. New Zealand. Mus. Grill? (typus Mus. Carlss?)" (Sundevall 1856, Part 1). It appears from this entry that Sundevall was not sure that this specimen had been received by the Museum from the Grill collection, or that it was the one described and illustrated in *Museum Carlsonianum*. Nevertheless, it

was no doubt this specimen that Sundevall included among the specimens then in the Museum that he considered were the types of birds illustrated in *Museum Carlsonianum* (Sundevall 1857). Later, Gyldenstolpe (1926) noted that the apparent type was "Mus. Grill (ex. Mus. Carlsonianum). No. 4353".

It seems that Sundevall (1857) and Gyldenstolpe (1926) identified this specimen of *Turnagra capensis* as Sparrman's type in the belief that it had been obtained by Grill from the Carlson collection. However, the only known Carlson specimen of *Turnagra capensis* went to the Academy, and was "destroyed" by August 1805. Accordingly, contrary to my earlier belief, the "Grill" specimen in question cannot be the type of *Turnagra c. capensis* (Sparrman, 1787). It does not have any taxonomic status.

Addendum

The Carlson collection included a specimen that was listed as "*Callaeas cinerea* vel *Glaucopsis cinerea* Gmel. Wattle bird. Lath." (Quensel 1802: 3). Presumably, this was a specimen of South Island kokako (*Callaeas cinerea cinerea*). There is no reason to doubt that it had been obtained in New Zealand during Cook's second voyage, and deposited by Sparrman in the Carlson collection with other bird specimens from that source. It was not described by Sparrman in *Museum Carlsonianum*, probably because Sparrman did not wish to pre-empt Reinhold Forster in that regard. Sparrman would have known that Forster intended to describe the taxon as a new genus, which Forster duly did, as *Callaeas*, in 1788 (Forster 1788: 35). The Carlson specimen does not have any taxonomic status, but it is of historic importance as a previously unrecognised specimen of *Callaeas c. cinerea* that was almost certainly collected in New Zealand during Cook's second voyage. The subsequent fate of this specimen is not known. It was not included among the Carlson bird specimens that went to Uppsala (Thunberg 1819), or among those selected for the Academy (Quensel 1802, addendum).

There is a mounted specimen of *Callaeas c. cinerea* in the Museum. The early history of this specimen is not known. It has a label that reads "*Callaeas cinerea*. Nya Zeeland. Mus. Paykull. Av. Ex. 563". Sundevall included it in his catalogue as "*Callaeas cinerea*. 563. Nya Zeeland. Mus. Paykull" (Sundevall 1856, Part 1). Unfortunately, it is not possible to identify this specimen with the specimen of *Callaeas* that was in the Carlson collection.

ACKNOWLEDGEMENTS

I am grateful to staff of the Royal Swedish Academy of Sciences (Kungl. Svenska Vetenskapsakademiens) who, in 1974, drew my attention to pertinent manuscripts in the possession of the Academy, and to Bo Sällström at the Swedish Museum of Natural History (Naturhistoriska riksmuseet) who facilitated my inspection of the specimens and provided me with manuscript and other

relevant documentation. I am also grateful to my wife, Carole, for her assistance in Stockholm, and to Murray Williams for some helpful comments.

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