

SHORT NOTE

The visit by John MacGillivray to the Kermadec Islands in 1854 and the discovery and description of the Kermadec petrel (*Pterodroma neglecta*)

W.R.P. BOURNE

Ardgath, Station Road, Dufftown, by Keith, AB55 4AX, United Kingdom
WRPBourne@Yahoo.co.uk

A.C.F. DAVID

Oak End, West Monkton, Taunton, Somerset TA2 8QZ, United Kingdom

It has long seemed strange that the Kermadec petrels (*Pterodroma neglecta* Schlegel, 1863) collected by a British warship were first described in the Netherlands. Recent accounts of the voyage of HMS *Herald* (David 1995), and of its naturalist John MacGillivray (Ralph 1993), have helped to elucidate the chain of events leading to the apparent anomaly.

John MacGillivray was the wayward son of one of the greatest British ornithologists, William MacGillivray, friend of J.J. Audubon (Ralph 1999). He became a ship's naturalist like Joseph Banks, Charles Darwin, Thomas Huxley, and Joseph Hooker, but unlike them went little further. While he was an excellent field observer and made good notes, he was irresponsible in his private life and major writing-up. When MacGillivray was appointed to the *Herald* the Captain, Henry Mangles Denham, asked for abstracts for the Admiralty of his observations at the places that they visited, such as Tristan da Cunha and St Paul I (Bourne & David 1981, 1995). MacGillivray apparently then took offence when the St Paul I report was published under Denham's own name (Denham 1854), possibly because he had not included his own, and sent a rude (untraced) comment to a Sydney newspaper. A court of enquiry (including Denham) was held in Sydney on 25 Apr 1855. MacGillivray (was dismissed the following day, but his records were retained on HMS *Herald*).

The papers included MacGillivray's notes from an impromptu visit to the Kermadec Is on 2-24 Jul 1854 (MacGillivray 1854), including a list of birds seen. Some species are marked with unexplained

asterisks which may imply that he took specimens, including the following species with presumed modern names in brackets: *Athene* (an owl feather); **Halcyon vagans* (New Zealand kingfisher *Halcyon sacra*); **Prothemadera concinnata* (tui *P. novaeseelandiae*); **Platycercus pacificus* (Kermadec parakeet *Cyanorhamphus novaeseelandiae cyanurus*); **Sula personata* (masked booby *Sula dactylatra*); *Phaeton phoenicurus* (red-tailed tropicbird *P. rubricauda*); **Sterna* n. sp. (grey ternlet *Procelsterna cerulea*); **Onychoprion fuliginosus* (sooty tern *Sterna fuscata*); *Diomedea exulans* (albatross *Diomedea* sp.); *Diomedea chlororhyncha* (mollymawk *Thalassarche* sp.); *Procellaria gigantea* (giant petrel *Macronectes* sp.); *Procellaria hasitata* (black-capped petrel *Pterodroma (cervicalis?)*); **Procellaria* n. sp. (Kermadec petrel *Pterodroma neglecta*); **Puffinus assimilis* (little shearwater *P. assimilis*); *Puffinuria* (diving petrel *Pelecanoides* sp.?); *Thalassidroma* (white-bellied storm petrel *Fregetta grallaria?*).

A duck, possibly *Anas superciliosa* (grey duck), some pintados, and a large *Thalassidroma* like *T. melanogaster* (black-bellied storm petrel *Fregetta tropica*) were seen in the distance but could not be identified.

The main novelties for the group now seem to be the owl's feather and the diving petrel, also referred to as a *Pelecanoides*. MacGillivray knew diving petrels well, so there was possibly some confusion with the little shearwaters. Gould (1865) later reported that he received 2 eggs of the little shearwater and 2 of the grey ternlet from MacGillivray, so at least some specimens must have reached him. It is not clear what happened to the rest of the material; some should have reached the British Museum, because according to a description that MacGillivray (1860) later published

of "*Procellaria torquata*", the collared petrel *Pterodroma (leucoptera) brevipes* from Aneiteum, Vanuatu, "a petrel nearly allied to the present, and also appearing in two different styles of plumage, was found by me incubating in the immature as in the full dress", and in a footnote: "from the Kermadec Isles. Specimens with the ms name *P. raoulensis* attached were sent by me to the British Museum several years ago. This bird should be placed by the side of *P. Lessoni*". These specimens cannot now be traced in the museum collections, although a Herald petrel (*Pterodroma (arminjoniana) heraldica*) subsequently collected by the ship reached the museum through John Gould in 1862 (Bourne *et al.* 2005). MacGillivray's comment may help explain why, in the same year, Gray (1860) named the Fiji petrel (*Pseudobulweria macgillivrayi*), collected by the ship's surgeon F.M. Rayner, after MacGillivray instead.

Presumably MacGillivray did not describe the Kermadec petrel as a new species because his notes had been confiscated, he did not know what had happened to his specimens, and he was not sure if it was not the white-headed petrel (*Pterodrom lessoni*) anyway. The specimens, wherever they were sent initially, usually, like the type of the Kermadec parakeet (*Cyanorhamphus novaezelandiae cyanurus*; R. Prŷs-Jones in litt.), seem to have passed through the hands of John Gould, who sometimes described them himself. The first mention of MacGillivray's specimens, under the name *P. raoulensis* without a description, seems to be by Bonaparte (1856) in his list of seabirds. The National Museum of Natural History in Leiden, The Netherlands, still has the 3 types of the pale phase described by Schlegel (1863) [RMNH no. 87027-9, labelled as taken by MacGillivray, and bought from the Maison Verreux in Paris in 1863 (W.W.J. Dekker *pers. comm.*; Hoek Ostende *et al.* 1997)].

This resolves the discrepancy between the circumstances of the collection and description of the Kermadec petrel, but it raises two further points. Firstly, it appears that MacGillivray (1860) was the first to question Gould's (1844) conclusion that dark gadfly petrels are young birds as in gulls (Merton 1970), this by after he collected both light and dark morphs of the soft-plumaged petrel (*Pterodroma mollis*) breeding in the southern Indian Ocean. Secondly, there seems room for doubt where the types of *P. neglecta* came from, because, according to his notes (MacGillivray 1854) while there were already small rats (which were sometimes numerous), cats, and dogs on Raoul Is in 1854, there were still some summer-breeding "muttonbirds" there in July, the ones he called *P. raoulensis*. He merely remarks that 9 winter-breeders from Saddle (or Meyer) Is were similar, so he may have been able to compare birds from both islands, and sent more than 1 consignment to Europe. Presumably the rats

were the Pacific rat (*Rattus exulans*), introduced long before by Polynesians (Higham & Johnson 1996). Their presence may explain the apparent shortage of storm petrels in the Kermadec Is, while the real havoc among the larger petrels was caused when larger Norway rats (*Rattus norvegicus*) arrived in 1921 (Merton 1970).

ACKNOWLEDGEMENTS

We are indebted to Ian McAllan for comments.

LITERATURE CITED

- Bourne, W.R.P.; David, A.C.F. 1981. Nineteenth century bird records from Tristan da Cunha. *Bulletin of the British Ornithologists' Club* 101: 247-256.
- Bourne, W.R.P.; David, A.C.F. 1995. The early history and ornithology of St Paul and Amsterdam Islands, southern Indian Ocean. *Gerfaut* 85: 19-36.
- Bourne, W.R.P.; David, A.C.F.; McAllan, I.A.W.; 2005. The birds of the southern Coral Sea including observations by HMS *Herald* in 1858-60. *Atoll research bulletin* 541: 531-542: 537-563.
- Bonaparte, C. 1856. Espèces nouvelles d'oiseaux d'Asie et d'Amérique et tableaux paralléliques des Pélagiens du Gaviae. *Comptes rendus* 42: 764-776.
- David, A. 1995. *The voyage of HMS Herald*. Carlton, Victoria, Miegunyah Press.
- Denham, H.M. 1854. A few days at Isle St Paul. *Nautical magazine* 23: 68-81, 261-265.
- Gould, J. 1844. On the family Procellariidae with descriptions of ten new species. *Annals and magazine of natural history* 13: 360-368.
- Gould, J. 1865. *Handbook to the birds of Australia*. 2 vol. London, The author.
- Gray, J.E. 1860. *Catalogue of the birds of the tropical islands of the Pacific Ocean*. London, Trustees of the British Museum.
- Hoek Ostende, L.W. van den; Dekker, R.W.R.J.; Keijl, G.O. 1997. *Type specimens of birds in the National Museum of Natural History, Leiden. Part I: Non-passerines. Nationaal Natuurhistorisch Museum technical bulletin* 1: 1-248.
- Higham, T.; Johnson, L. 1996. Research report: The prehistoric chronology of Raoul Island, the Kermadec Group. *Archaeology in Oceania* 31: 207-213.
- MacGillivray, J. 1854. *Journal of the Voyage of HMS Herald*. Kew, London, The National Archives (formerly Public Record Office).
- MacGillivray, J. 1860. Description of *Procellaria torquata*, a new species of petrel. *Zoologist* 7: 133-7134.
- Merton, D.V. 1970. Kermadec Islands expedition reports: a general account of the bird-life. *Notornis* 17: 147-199.
- Ralph, R. 1993. John MacGillivray- his life and work. *Archives of natural history* 20: 185-195.
- Ralph, R. 1999. *William MacGillivray - creatures of air, land and sea*. London, Merrell Holberton & The Natural History Museum.
- Schlegel, H. 1863. *Procellariae. Muséum d'Histoire Naturelle des Pays-Bas, Revue Méthodique et Critique des Collections déposées dans cet Etablissement. Tome 6, Monographie* 22: 1-40. Leiden, E.J. Brill.

Keywords Kermadec Is; Kermadec petrel; *Pterodroma neglecta*; HMS *Herald*; polymorphism; John MacGillivray