

The provenance of the only known egg of the extinct Tristan Moorhen *Gallinula nesiotis*

Authors: Bond, Alexander L., and Russell, Douglas G. D.

Source: Bulletin of the British Ornithologists' Club, 143(3) : 325-329

Published By: British Ornithologists' Club

URL: <https://doi.org/10.25226/bboc.v143i3.2023.a8>

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

The provenance of the only known egg of the extinct Tristan Moorhen *Gallinula nesiotis*

by Alexander L. Bond & Douglas G. D. Russell

Received 23 February 2023; revised 16 May 2023; published 7 September 2023

<http://zoobank.org/urn:lsid:zoobank.org:pub:24BF3C71-3BD6-464E-A6CF-359033175638>

SUMMARY.—Tristan Moorhen *Gallinula nesiotis* is a rail from Tristan da Cunha in the South Atlantic Ocean that probably went extinct around 1874. Here, we describe the only known egg of the species, its history, and confusion surrounding its attribution. It was probably collected by (or given to) Revd. W. F. Taylor sometime between 1851 and 1856, shipped aboard *HMS Frolic* in 1856, and presented as a gift to Lady Eliza Lucy Grey, wife of Cape Colony Governor Sir George Grey.

Tristan Moorhen *Gallinula nesiotis* was one of only three native landbirds on Tristan da Cunha until its extinction sometime in the mid to late 1870s (Bond *et al.* 2019). A flightless rallid, its identity was often confused with that of Gough Moorhen *G. comeri*, which was introduced to Tristan in the 1950s and is now widespread (Richardson 1984, Groenenberg *et al.* 2008).

Very few specimens of Tristan Moorhen exist, including two skins at the Natural History Museum, Tring (NHMUK): the holotype (NHMUK 1861.9.16.1) received in 1861 (Sclater 1861, Beintema 1972) and another in 1864 from the Zoological Society of London (NHMUK 1864.7.30.1) (Sharpe 1894).

To our knowledge, there is just one extant egg ascribed to the species: NHMUK 1960.6.53 (Fig. 1). In their assessment of extinction probability, Bond *et al.* (2019) did not include this as there was uncertainty concerning the date of collection, which prompted further investigation. An egg was recorded as being brought back in 1856 by Captain M. S. Nolloth on *HMS Frolic* (Layard 1856, Nolloth 1856, Stone 2011) but was presumed to be lost (Bond *et al.* 2019).

The specimen

The surviving egg measures 49.6 × 33.5 mm, which is nearly identical to biometrics of Gough Moorhen eggs (49.0–54.9 × 34.1–37.2 mm; $n = 12$) (Watkins & Furness 1986), being only marginally more slender. The only markings on the egg are the determination ('*Gallinula nesiotis*' in an unknown hand) and registration number (in the hand of Shane Parker) in black ink, and reference to Oates (1901) in red type ('Cat 1.9'), referring to where it is figured (Vol. 1, Pl. IX, Fig. 7).



|||||

Figure 1. Egg of the Tristan Moorhen *Gallinula nesiotis* held at the Natural History Museum, Tring (NHMUK 1960.6.53) (Jonathan Jackson, © Trustees of the Natural History Museum)

It is accompanied by a handwritten note of uncertain authorship that states: 'Egg of an almost wingless bird from Tristan de Acunha near [?] described in Earle's New Zealand, p. 366 1832' (Fig. 2). Augustus Earle (1793–1838) was a painter who was abandoned on Tristan da Cunha in March–November 1824 when the ship *Duke of Gloucester* inexplicably left without him. The note references the following description of birds witnessed by Earle (1832: 366):

'Besides our albatross, the dogs caught some small birds, about the size of our partridge, but their gait was something like that of the penguin. The male is of a glossy black, with a bright red, hard crest on the top of the head. The hen is brown. They stand erect, and have long yellow legs, with which they run very fast; their wings are small and useless for flying, but they are armed with sharp spurs for defence, and also, I imagine, for assisting them in climbing, as they are found generally among the rocks. The name they give this bird here, is simply "cock," its only note being a noise very much resembling the repetition of that word. Its flesh is plump, fat, and excellent eating'.

Earle clearly mistook juveniles for females, but it is otherwise an accurate description of the Tristan Moorhen subsequently described by Sclater (1861).

At a time when the species was undescribed the note was, we believe, purely an aide memoire, merely indicating the species that laid the egg was probably the same as that described by Earle. However, it was interpreted by Oates (1901) as indicating that Earle personally collected the egg during the eight-month period he was on Tristan da Cunha (26 March–29 November 1824).

There are several reasons this is unlikely. Firstly, on Gough the closely related Gough Moorhen lays during September–March (Watkins & Furness 1986); on Tristan the birds probably bred between December and March (Taylor 2020), meaning the timing of Earle's sojourn was not optimal for collecting eggs and there is no evidence to suggest he collected any specimens beyond this rather ambiguous handwritten note. He could, of course, have been given the egg by one of the island's residents but, given the evidence mentioned below, this too seems unlikely.

Secondly, Earle is not mentioned as an ornithological collector of prominence by Sharpe (1906) nor have we been able to find any records of specimens collected by him in the 28 volumes of the *Catalogue of birds in the British Museum* (1874–90) or the *Catalogue of eggs in the British Museum* (1901–12). Lastly, Earle is primarily known as an artist and, whilst several of his artworks survive from his period on Tristan da Cunha, to our knowledge he is not known to have collected natural history or other material (e.g., ethnography). Earle apparently returned to England in 1830 and Hackforth-Jones (1980) noted his desire to capitalise on his travels via his publications (Earle 1830, 1832). Although Earle mentioned the moorhen's existence (Earle 1832), others had done so previously (Lambert 1811,

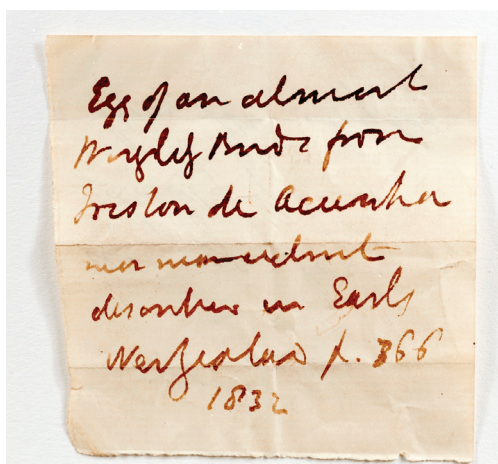


Figure 2. Handwritten note with the Tristan Moorhen *Gallinula nesiotis* egg, which reads 'Egg of an almost wingless bird from Tristan de Acunha near [?] described in Earle's New Zealand, p. 366 1832' (Jonathan Jackson, © Trustees of the Natural History Museum)

Purdy 1816, Carmichael 1819) and there is no evidence that Earle sold or freely passed on any objects from his travels.

The reverse of the same note has, in a different hand (Fig. 3): 'With care. An egg for Lady Grey from W. Taylor'. Lady Eliza Lucy Grey (née Spencer; 1822–98) was the wife of Sir George Grey (1812–98), Governor of Cape Colony in present-day South Africa and Namibia during 1854–61 (Anon. 1966). W. Taylor is Revd. William F. Taylor, the first missionary on Tristan da Cunha, who served the island from 9 February 1851 to 15[?] October 1857 (Faustini n.d.). Taylor was not a noted naturalist, but he did overlap with visits from both *HMS Frolic*, which returned with several natural history objects (Layard 1856, Nolloth 1856), and *HMS Herald* with naturalist John MacGillivray (MacGillivray 1852), and he met parties from both vessels

coming ashore (Faustini n.d.). This origin was presumed by Bourne & David (1981), however they did not elaborate on their reasoning or evidence beyond the existence of the aforementioned handwritten note (which is contradicted on the reverse).

Another potential origin is captive birds housed at the Zoological Society of London. At least two live shipments of Tristan Moorhens were received: the first in 1861 consisted of five individuals, two of which were predated in Cape Town, and two died en route and were preserved (including the holotype). The survivor was housed at London Zoo and presented to NHMUK on its death (the second specimen mentioned above) (Bourne & David 1981). The second shipment in 1869 via *HMS Telegraph* and E. L. Layard in Cape Town comprised three birds (Bourne & David 1981), but these are likely to have been Gough Moorhens as *HMS Telegraph* did not call at Tristan (Layard 1869, Brooke 1979, Faustini n.d.). The sex of the one surviving bird was not recorded, but it could have laid infertile eggs in captivity.

Of the hypotheses above, the second seems most plausible and would match with a simple misinterpretation of the reference to Earle. The *HMS Frolic* is recorded as having returned with an egg along with other natural history collections (Layard 1856). It visited Tristan between 18 and 22 March 1856 (Faustini n.d.) during the tenure of Revd. Taylor and on the authority of Governor Grey (Nolloth 1856). The reason for the gift to Lady Grey is unknown.

Discussion

The Tristan Moorhen egg's registration number (NHMUK 1960.6.53) places it in an aggregate of egg specimens 'Found during a revision of the collection in 1960'. In the 1950s, the Natural History Museum egg collections were returned to South Kensington, London, from their wartime storage at Tring, motivated by the death of the voluntary curator of eggs, William Edwin Glegg (1878–1952). In 1960, the first substantial re-curation and re-cataloguing of the collection since Glegg's death was undertaken by Shane Alwyne Parker (1943–92) who had recently joined the museum at the age of 16. This 'revision' was in preparation for the proposed move of the bird collections to Tring, and in light of the forthcoming Harold Hall Australian expeditions (1962–70). The series includes many

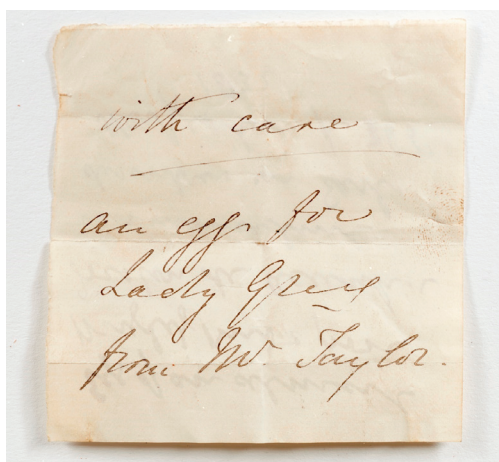


Figure 3. The reverse of the same note as in Fig. 2, which reads 'With care. An egg for Lady Grey from W. Taylor' (Jonathan Jackson, © Trustees of the Natural History Museum)

specimens of historical and scientific importance which, for one reason or another, had either not been officially assigned registration numbers in the past or where the original number had become unclear. It includes material from many important collections presented in the 1800s and early 1900s, including those of Gould, Salvin & Godman, Hume, and Seth-Smith. Thus, the registration number does not, in any way, reflect a mid-20th century acquisition. It aimed to improve the cataloguing of formerly overlooked material but, in many cases, unintentionally added to confusion. The understandable inexperience of Parker and a lack of direct oversight led to some curatorial uncertainties which remain to this day. As such, we are unsure how or when it was acquired by the Natural History Museum.

The date of collection of the Tristan Moorhen egg is still uncertain, but most likely it was during Revd. Taylor's time on Tristan before the departure of *HMS Frolic*, between February 1851 and March 1856. Because it pre-dates other definitive specimens, it does not affect the predictions of Bond *et al.* (2019) in terms of the Tristan Moorhen's extinction, estimated to be around 1874.

Acknowledgements

We are indebted to library staff at the Royal Society for the Protection of Birds and the Natural History Museum who helped track down sources relating to 19th century ornithological records from Tristan da Cunha. Numerous sources were also available on the Biodiversity Heritage Library website (<https://www.biodiversitylibrary.org/>). We also thank J. Jackson (NHM Photo Unit) for his expert photography. We appreciate input from Mark Small and Martin Stervander that improved this manuscript.

References:

- Anon. 1966. Grey, Sir George (1812–1898). *Australian dictionary of biography*, vol. 1. National Centre of Biography, Australian Natl. Univ., Canberra.
- Beintema, A. J. 1972. The history of the Island Hen (*Gallinula nesiotis*), the extinct flightless gallinule of Tristan da Cunha. *Bull. Brit. Orn. Cl.* 92: 106–113.
- Bond, A. L., Carlson, C. J. & Burgio, K. R. 2019. Local extinctions of insular avifauna on the most remote inhabited island in the world. *J. Orn.* 160: 49–60.
- Bourne, W. R. P. & David, A. C. F. 1981. Nineteenth century bird records from Tristan da Cunha. *Bull. Brit. Orn. Cl.* 101: 247–256.
- Brooke, R. K. 1979. Some mid-XIX century bird collections from Tristan da Cunha. *Cormorant* 7: 24–26.
- Carmichael, D. 1819. Some account of the island of Tristan da Cunha and of its natural production. *Trans. Linn. Soc. Lond.* 12: 483–513.
- Earle, A. 1830. *Views in New South Wales, and Van Diemen's Land*. J. Cross, London.
- Earle, A. 1832. *A narrative of a nine months' residence in New Zealand in 1827; together with a journal of residence in Tristan d'Acunha, an island situated between South America and the Cape of Good Hope*. Longman, Rees, Orme, Brown, Green, & Longman, London.
- Faustini, A. n.d. The annals of Tristan da Cunha. https://web.archive.org/web/20061113134958/http://www.btinternet.com/~sa_sa/tristan_da_cunha/images/tristan_annals.pdf (accessed 12 June 2023).
- Groenenberg, D. S. J., Beintema, A. J., Dekker, R. W. R. J. & Gittenberger, E. 2008. Ancient DNA elucidates the controversy about the flightless island hens (*Gallinula* sp.) of Tristan da Cunha. *PLoS ONE* 3: e1835.
- Hackforth-Jones, J. 1980. *Augustus Earle, travel artist - paintings and drawings in the Rex Nan Kivell collection, National Library of Australia*. Scholar Press, London.
- Lambert, J. 1811. Letter to William Lockerby. Pp. 219–224 in Thurn, E. I. & Wharton, L. C. (eds.) *The journal of William Lockerby, sandalwood trader in the Fijian Islands during the years 1808–1809, with an introduction and other papers connected with the earliest European visitors in the islands*. Hakluyt Society, London.
- Layard, E. L. 1856. Note by Mr Layard. *Nautical Mag.* 1856: 414–415.
- Layard, E. L. 1869. The South African Museum. *S. Afr. Mag.* 3: 467–468.
- MacGillivray, J. 1852. Journal of observations aboard H.M.S. *Herald*. MSS ADM 7-851 & 7-852. Public Records Office, London.
- Nolloth, M. S. 1856. Visit of H.M.S. *Frolic* to Tristan da Cunha. *Nautical Mag.* 25: 401–415.
- Oates, E. W. 1901. *Catalogue of the collection of birds' eggs in the British Museum*, vol. 1. Trustees of the Brit. Mus., London.
- Purdy, J. 1816. *The Oriental navigator: or, directions for sailing to, from, and upon the coasts of, the East-Indies, China, Australia, &c.* James Whittle & Richard Holmes Laurie, London.
- Richardson, M. E. 1984. Aspects of the ornithology of the Tristan da Cunha group and Gough Island, 1972–1974. *Cormorant* 12: 123–201.
- Sclater, P. L. 1861. On the island-hen of Tristan d'Acunha. *Proc. Zool. Soc. Lond.* 1861: 260–263.

- Sharpe, R. B. 1894. *Catalogue of birds in the British Museum*, vol. 23. Trustees of the Brit. Mus., London.
- Sharpe, R. B. 1906. *The history of the collections contained in the natural history departments of the British Museum*, vol. 2. Trustees of the Brit. Mus., London.
- Stone, I. R. 2011. Royal Naval visits to Tristan da Cunha 1852–1904: an annotated list. *Polar Rec.* 47: 156–164.
- Taylor, B. 2020. Tristan Moorhen (*Gallinula nesiotis*), version 1.0. In del Hoyo, J., Elliott, A., Sargatal, J., Christie, D. A. & de Juana, E. (eds.) *Birds of the world*. Cornell Lab of Ornithology, Ithaca, NY. <https://doi.org/10.2173/bow.trimoo2.01> (accessed 16 May 2023).
- Watkins, B. P. & Furness, R. W. 1986. Population status, breeding and conservation of the Gough Moorhen. *Ostrich* 57: 32–36.

Address: Bird Group, Natural History Museum, Akeman Street, Tring, Herts. HP23 6AP, UK, e-mail: a.bond@nhm.ac.uk

