Confusing female Taiwanese Tarsiger bush robins and designation of a lectotype for Ianthia johnstoniae Ogilvie-Grant, 1906

Authors: Kirwan, Guy M., van Grouw, Hein, and Su, Mei-Ru

Source: Bulletin of the British Ornithologists' Club, 144(1) : 96-100

Published By: British Ornithologists' Club

URL: https://doi.org/10.25226/bboc.v144i1.2024.a11

Confusing female Taiwanese *Tarsiger* bush robins and designation of a lectotype for *Ianthia johnstoniae* Ogilvie-Grant, 1906

by Guy M. Kirwan, Hein van Grouw & Mei-Ru Su

Received 3 January 2024; revised 6 February 2024; published 4 March 2024

http://zoobank.org/urn:lsid:zoobank.org:pub:CB081113-E867-4D71-9C6E-FFB3FE17124E

Summary.—Recent research reveals that the original series, a male and female, used to describe *Ianthia johnstoniae* Ogilvie-Grant, 1906 (= Collared Bush Robin *Tarsiger johnstoniae*), held in the Natural History Museum, Tring, is mixed. The male is a Collared Bush Robin, but the female is an example of the morphologically very similar White-browed Bush Robin *T. indicus formosanus*. Because the syntypes represent two different species and in order to fix the identity on the universally understood taxonomic concept associated with *T. johnstoniae*, we select as its lectotype the unambiguously identified male specimen (NHMUK 1907.12.12.39).

Collared Bush Robin *Tarsiger johnstoniae* is endemic to the island of Taiwan and its male is arguably the most phenotypically distinctive member of its genus (Clement & Rose 2015). It is one of two bush robins that are resident on Taiwan, the other being White-browed Bush Robin *T. indicus*, which is represented by an endemic subspecies, *formosanus*, described by Collar (2005) as 'moderately distinctive' in plumage, but which a recent molecular phylogeny suggested was sufficiently different genetically to warrant treating at species rank (Wei *et al*. 2022); *T. i. formosanus* is also quite geographically disjunct. A third species, Red-flanked Bluetail *T. cyanurus*, is a non-breeding visitor to the island.

T. johnstoniae was described by Ogilvie-Grant (1906) from two specimens (syntypes), a male and female, collected in early 1906 by the professional zoological collector Walter Goodfellow (1866–1953) and now held at the Natural History Museum, Tring (NHMUK; Warren & Harrison 1971). *T. i. formosanus* was described by Hartert (1910) from specimens of both sexes (the male holotype and single male and female paratypes) collected on Mount Arizan, also in central Taiwan, and now held in the American Museum of Natural History, New York (LeCroy 2005). In particular, Hartert (1910) carefully distinguished how the female of his new taxon differed from the same sex of *T. johnstoniae*. Despite this, just two years later, Ogilvie-Grant (1912) described a third taxon, *Ianthia goodfellowi*, from the same locality, Mount Arizan. It too was based on single male and female specimens obtained by Goodfellow and now held at NHMUK (Warren & Harrison 1971). Perhaps unsurprisingly, *I. goodfellowi* very quickly fell into the synonymy of *T. i. formosanus*; it is not even mentioned in the relevant volume of the Peters checklist (Ripley 1964).

In the original description of *Ianthia johnstoniae*[1], Ogilvie-Grant (1906) reported that he had both a male and female, provided descriptions and measurements of both, and stated that Mt. Morrison is the new species' 'habitat' (= type locality). Finally, he mentioned that he was naming the new species 'in honour of Mrs. Johnstone', i.e., Marian Ada Johnstone (1870–1954), an English aviculturist (Jobling 2010). In a subsequent paper, published one

[1] *Erithacus taiwan* Hachisuka, 1953, *Bulletin of the British Ornithologists' Club* 73: 33, nom. nov. for *Ianthia johnstoniae* Ogilvie-Grant, nec *Pogonocichla johnstoni* Shelley, 1893. However, the latter two names are not homonyms, meaning that Ogilvie-Grant's nomen is not preoccupied by Shelley's, even when they are placed in the same genus, thus Hachisuka's intervention was unwarranted (Ripley 1964).

ISSN-2513-9894 (Online)

year later, Ogilvie-Grant and La Touche (1907) noted that the 'types of the species' were collected in the Racu Racu Mts. (the male) and on Mt. Morrison (the female), in February and January 1906, respectively, both at 8,000 ft. Chang & Severinghaus (1979) clarified that the first-named locality probably corresponds to the range between Tung Pu Hot Springs and Patungkuan in Nantou County. Under the Code (ICZN 1999), Art. 73.2.3 states that 'if the syntypes originated from two or more localities...the type locality encompasses all of the places of origin.'

In September 2023, as part of a planned revision of the Collared Bush Robin account for *Birds of the world* (Kirwan *et al*. 2024), GMK searched for the female syntype of Ogilvie-Grant's nomen *Ianthia johnstoniae*. It (NHMUK 1907.12.12.40, sequential with the male syntype, which is NHMUK 1907.12.12.39) was eventually located among the specimens of *T. i. formosanus*, one of its labels having been modified to read '*Ianthia goodfellowi*' (Fig. 1). Rather remarkably, the female syntype of *I. goodfellowi* had at some time in the past been discovered among the tray of *T. johnstoniae*, where it had been correctly identified as Ogilvie-Grant's other syntype; this specimen is NHMUK 1913.1.29.52 (i.e. sequential with the male syntype of *I. goodfellowi*, NHMUK 1913.1.29.51, which was listed by Warren & Harrison 1971). In both cases, the accompanying label data further satisfactorily identified these female specimens as the relevant syntypes of *Ianthia johnstoniae* and *I. goodfellowi*, respectively.

Separating females of the two *Tarsiger* species on Taiwan can be difficult (e.g., Brazil 2009, Clement & Rose 2015, Hsiao & Li 2017, Kirwan *et al*. 2024). As emphasised by several

Figure 1. Female syntype of Collared Bush Robin *Tarsiger johnstoniae*, collected by Walter Goodfellow at 8,000 ft. [*c*.2,440 m] on Mt. Morrison, Taiwan, in January 1906, and held in the Natural History Museum, Tring (NHMUK 1907.12.12.40); herein reidentified as a female White-browed Bush Robin *T. indicus formosanus* (Jonathan Jackson, © Trustees of the Natural History Museum, London)

ISSN-2513-9894 (Online)

Figure 2. Female syntypes of *Ianthia goodfellowi* (a synonym of White-browed Bush Robin *T. indicus formosanus*) (NHMUK 1913.1.29.52; left; for collection details, see main text) and Collared Bush Robin *Tarsiger johnstoniae* (NHMUK 1907.12.12.40; for collection details, see Fig. 1), showing their identically coloured undertail-coverts (Guy M. Kirwan, © Trustees of the Natural History Museum, London)

of these works, and indeed Hartert (1910) when he described *formosanus*, the single most reliable feature is the colour of the undertail-coverts: white or principally whitish in *T. johnstoniae* and yellowish buff in *T. i. formosanus*. Based on this, it seems clear that both the female syntype of *Ianthia goodfellowi* Ogilvie-Grant, 1912, and the female syntype of *Ianthia johnstoniae*, Ogilvie-Grant, 1906, are representatives of the same taxon, namely that now known as *T. i. formosanus* (see Fig. 2). It is conceivably odd that Hartert (1910) did not notice this, although certainly not as strange as Ogilvie-Grant (1912) so swiftly publishing a straight synonym of Hartert's name. Published mensural data (Clement & Rose 2015, Severinghaus *et al*. 2017) do not suggest that biometrics can be used to help identify a single individual. Although it has been claimed that the two Taiwanese *Tarsiger* species occasionally hybridise (Severinghaus & Severinghaus 1984, Severinghaus *et al*. 2017), which might potentially make females even harder to identify, to date assumed hybrids have been individuals exhibiting only rudimentary male features, including a black throat, black cheeks, and a few rusty feathers on the scapulars Kirwan *et al*. 2024). According to Kirwan *et al*. (2024), ringing data have revealed such individuals to be not rare and all are female, meaning that they are presumably older females that have acquired male characteristics, rather than hybrids.

That the original series of *Ianthia johnstoniae* is mixed becomes less surprising when one recalls that the two syntypes were collected an unknown number of weeks apart and at quite different localities (Ogilvie-Grant & La Touche 1907). Furthermore, in recounting the 'discovery' of *Ianthia goodfellowi*, Ogilvie-Grant (1912) reported that Goodfellow had found the two species of bush robins syntopically and had initially thought that the white-browed

ISSN-2513-9894 (Online)

Figure 3. Male lectotype of Collared Bush Robin *Tarsiger johnstoniae*, collected by Walter Goodfellow at 8,000 ft. [*c*.2,440 m] in the Racu Racu Mts., Taiwan, in February 1906, and held in the Natural History Museum, Tring (NHMUK 1907.12.12.39) (Jonathan Jackson, © Trustees of the Natural History Museum, London)

males were young males of *johnstoniae*, whereas in reality they were just representatives of Hartert's recently described taxon, *formosanus*.

Warren & Harrison (1971: 276) identified the two syntypes of *Ianthia johnstoniae* listed by Ogilvie-Grant & La Touche (1907), and provided details of the adult male collected by Walter Goodfellow at 8,000 ft. [*c*.2,440 m] in the Racu Racu Mts. in February 1906 (NHMUK 1907.12.12.39). It was subsequently placed in one of the type collection cabinets at Tring, and given a red 'Type' label. Because it was not formally designated as a lectotype (Warren & Harrison specifically mentioned that 'the female syntype is also in the collection'), the adult male maintained the same nomenclatural status as the other syntype of *I. johnstoniae* (Arts. 72.4.7 and 74.5; ICZN 1964, 1999). In light of the revelation that the syntypes represent two different species and in order to fix the identity on the universally understood taxonomic concept associated with *Tarsiger johnstoniae*, we select as its lectotype the unambiguously identified male specimen (NHMUK 1907.12.12.39; Fig. 3) collected in the Racu Racu Mts. and listed by Warren & Harrison (1971). This designation satisfies Arts. 74.7.1, 74.7.2 and 74.7.3 (both original and amended versions; ICZN 1999, 2003), as well as being in accord with Recommendations 74A and 74C. It results in NHMUK 1907.12.12.40 becoming a paralectotype of *I. johnstoniae*, irrespective of its taxonomic identity. This designation fixes the identity of *I. johnstoniae* and maintains stability of this nomen, thereby fulfilling a primary objective of the International Commission on Zoological Nomenclature to promote stability of scientific names (ICZN 1999). In contrast, selecting the female (NHMUK 1907.12.12.40) as the lectotype would be exceptionally and needlessly disruptive nomenclaturally as the

ISSN-2513-9894 (Online)

taxon currently known as *T. i. formosanus* would become *T. johnstoniae*, while the current species *johnstoniae* would require a new name.

Acknowledgements

We are grateful to Andy Elliott for reading this manuscript prior to submission, David Wells and Robert Prŷs-Jones for refereeing the paper, and Mark Adams for other input. Jonathan Jackson is thanked for taking some of our specimen photographs.

References:

Brazil, M. 2009. *Birds of East Asia: eastern China, Taiwan, Korea, Japan and eastern Russia*. Christopher Helm, London.

Chang, W. F. & Severinghaus, S. R. 1979. Notes on the Yellow Tit *Parus holsti* of Taiwan with discovery of its nest. *Bull. Brit. Orn. Cl*. 99: 54–56.

Clement, P. & Rose, C. 2015. *Robins and chats*. Christopher Helm, London.

Collar, N. J. 2005. Collared Bush-robin (*Tarsiger johnstoniae*). P. 755 *in* del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, vol. 10. Lynx Edicions, Barcelona.

International Commission for Zoological Nomenclature (ICZN) 1964. *International code of zoological nomenclature*. Second edn. The International Trust for Zoological Nomenclature, London.

International Commission for Zoological Nomenclature (ICZN) 1999. *International code of zoological nomenclature*. Fourth edn. The International Trust for Zoological Nomenclature, London.

International Commission for Zoological Nomenclature (ICZN) 2003. Declaration 44. Amendment of Article 74.7.3. *Bull. Zool. Nomencl*. 60: 263

Hartert, E. 1910. [Exhibition of a new subspecies of flycatcher (*Tarsiger indicus formosanus*) from central Formosa]. *Bull. Brit. Orn. Cl*. 25: 32–33.

Hsiao, M. C. & Li, C. L. 2017. *A field guide to the birds of Taiwan*. Wild Bird Society of Taipei, Taipei.

Jobling, J. A. 2010. *Helm dictionary of scientific bird names*. A. & C. Black, London.

Kirwan, G. M., Su, M.-R., Pyle, P. & Collar, N. 2024. Collared Bush-Robin (*Tarsiger johnstoniae*), version 1.1. *In* Kirwan, G. M. (ed.) *Birds of the world*. Cornell Lab of Ornithology, Ithaca, NY. https://doi.org/10.2173/bow.cobrob1.01.1 (accessed 20 January 2024).

LeCroy, M. 2005. Type specimens of birds in the American Museum of Natural History. Part 6. Passeriformes: Prunellidae, Turdidae, Orthonychidae, Timaliidae, Paradoxornithidae, Picathartidae, and Polioptilidae. *Bull. Amer. Mus. Nat. Hist*. 292: 1–132.

Ogilvie-Grant, W. R. 1906. [On new species from central Formosa]. *Bull. Brit. Orn. Cl*. 16: 118–123.

Ogilvie-Grant, W. R. 1912. Further notes on the birds of the island of Formosa. *Ibis* (9)6: 643–657.

Ogilvie-Grant, W. R. & La Touche, J. D. D. 1907. On the birds of the island of Formosa. *Ibis* (9)1: 151–198.

Ripley, S. D. 1964. Subfamily Turdinae, thrushes. Pp. 13–227 *in* Mayr, E. & Paynter, R. A. (eds.) *Check-list of birds of the world*, vol. 10. Mus. Comp. Zool., Cambridge, MA.

Severinghaus, L. L. & Severinghaus, S. R. 1984. Possible hybridization in wild bush robins of the genus *Tarsiger* (Turdidae). *Wildbird* 1: 141–148.

Severinghaus, L. L., Ding, T. S., Fang, W. H., Lin, W. H., Tsai, M. C. & Yen, C. W. 2017. *The avifauna of Taiwan*, vol. 3. Forestry Bureau, Council of Agriculture, Taipei.

Warren, R. L. M. & Harrison, C. J. O. 1971. *Type-specimens of birds in the British Museum (Natural History)*, vol. 2. British Museum (Natural History), London.

Wei, C., Sangster, G., Olsson, U., Rasmussen, P. C., Svensson, L., Yao, C.-t., Carey, G. J., Leader, P. J., Zhang, R., Chen, G., Song, G., Lei, F., Wilcove, D. S., Alström, P. & Liu, Y. 2022. Cryptic species in a colorful genus: integrative taxonomy of the bush robins (Aves, Muscicapidae, *Tarsiger*) suggests two overlooked species. *Mol. Phylo. & Evol*. 175: 107580.

Addresses: Guy M. Kirwan, Scientific Associate, Bird Group, Natural History Museum, Akeman Street, Tring, Herts. HP23 6AP, UK, and Research Associate, Field Museum of Natural History, 1400 South Lakeshore Drive, Chicago, IL 60605, USA, e-mail: guy.kirwan@nhm.ac.uk. Hein van Grouw, Bird Group, Natural History Museum, Akeman Street, Tring, Herts. HP23 6AP, UK. Mei-Ru Su, Taiwan Biodiversity Research Institute, 1 Mingshen East Road, Jiji, Nantou, Taiwan.

ISSN-2513-9894 (Online)