

Submission to BirdLife Australia Rarities Committee

Submission No. 1030
Species: Pied Imperial-Pigeon *Ducula bicolor bicolor*
Location: Flying Fish Cove, Christmas Island
Observation Date: 4 February 1899
Submission Date
Submitted by: Ian McAllan
Address:

Circumstances

The Pied Imperial-Pigeon *Ducula bicolor* (sensu stricto) is not on the BirdLife Australia Working List of Australian Birds (v2.1) (BirdLife Australia 2017). The ornithological literature refers to a specimen from Christmas Island (Gibson-Hill 1947; Johnstone & Darnell 2004; James & McAllan 2014). In addition, there is supposedly a specimen (desiccated remains) in the Western Australian Museum from Ashmore Reef collected on 22 April 2012 (See BARC unsubstantiated list; Menkhorst *et al.* 2017). At this stage there has been no submission to BARC for either report.

The Australian checklist clearly recognises *D. bicolor*, as being a separate species to Torresian Imperial-Pigeon *D. spilorrhoea*, as the latter, a junior synonym, is listed as a taxon in its own right. Even though Christidis & Boles (2008) also kept *spilorrhoea* as part of *bicolor*, they noted that the Christmas Island specimen's identity needed to be confirmed.

The Christmas Island specimen was said to have been collected by Hugh Ross (i.e. Hugh Clunies Ross) on 4 February 1899 (Andrews 1900). This submission concerns the Christmas Island specimen, which was found and examined during a visit to the Natural History Museum at Tring, UK in May 2018.

About Charles W. Andrews

Charles William Andrews (1866-1924) was employed in the 1890s as an assistant in the British Museum (Natural History), curating the vertebrate fossil collections. In 1897 he obtained leave to take up the post of naturalist, exploring the biota of Christmas Island, a post funded by Sir John Murray. In this capacity he collected as much natural history material as he was able during his ten months on Christmas Island in 1897–1898.

After Andrews returned to the UK, the bird specimens were donated by Murray to the British Museum (Natural History) in London. The birds were reviewed by Robert Bowdler Sharpe and published in *A Monograph of Christmas Island (Indian Ocean)* (Sharpe in Andrews 1900) Before the publication of the *Monograph* some further specimens were sent by Hugh Clunies Ross to Andrews and the details of these were included as an Appendix, authored by Andrews (pages 319-320, see Figure 1).

The Specimen

Andrews (1900) recorded that Clunies Ross collected a single adult male Pied Imperial-Pigeon (under the name *Myristicovorvus bicolor*) at Flying Fish Cove on Christmas Island on 4 February 1899. No description of the bird was given, and no measurements were provided. The bird was clearly sexed by dissection, as there is no sexual dimorphism in the species' plumage. There is some size difference between the sexes, though it is unlikely that Andrews would have been aware of this.

A small collection of birds and insects made by Mr. Hugh Ross since I left the island has recently reached England. The species are nearly all described above, but there are two birds and one beetle new to the island, and also a beetle that is new to science.—
C. W. A.

The birds are :—

AVES.

COLUMBIFORMES.

Myristicivorus bicolor.

Adult male. Flying Fish Cove, February 4, 1899. Several individuals of this species were observed; probably they had been blown to the island during migration.

Figure 1. The account of the Pied Imperial-Pigeon in the Appendix to Andrews (1900).

Although accepted as this species in the broadest sense by many later authors, I am not aware that anyone has re-examined the specimen to see if it conforms to *D.b. bicolor*.

On 15 May 2018 I found it among the *Ducula bicolor* shelves in The Natural History Museum Bird Collection at Tring, UK. It was labelled with the correct information, with the registration number 1900.3.23.4

The bird was photographed, and a wing measurement taken: a wing chord of 225 mm (see attached photographs – Figures 2 and 3).

The bird has the typical plumage pattern for this species (e.g. see plate 73 in Gibbs *et al.* 2001), with a largely cream-white plumage, broad black tips to its tertials, and completely black greater primary coverts, alula, primaries and secondaries. The wing length of 225 mm fits within the range for the species, though is small for male *D. bicolor*. Gibbs *et al.* record a range of 228–240 mm for males in this subspecies. In any case it is clearly too small for *D. spilorrhoea*, which measures 233–251 mm for both sexes (Gibbs *et al.* 2001). Frith (1982) separately gave a range of 230–254 mm for male *D. spilorrhoea*, while Higgins & Davies (1996) gave a range of 218–252 mm for male birds from Queensland and the Northern Territory, though there was no indication whether this included juvenile or first-year birds.

There are no black blotches on the undertail coverts or thighs: consistent with *D. bicolor*, but not with *D. spilorrhoea*.

D. spilorrhoea often have grey heads, though this is not a consistent character (Frith 1982; Higgins & Davies 1996; Gibbs *et al.* 2001).

All in all, the wing-length and plumage characters indicate the specimen is a Pied Imperial-Pigeon *Ducula bicolor bicolor* rather than Torresian Imperial-Pigeon *D. spilorrhoea*.



A

B

C

Figure 2. Dorsal view of specimen

- A: specimen of *D.b. bicolor* from Java
- B: the specimen from Flying Fish Cove
- C: specimen of *D.b. spilorhoa* from Queensland



A

B

C

Figure 3. Ventral view of specimen

- A: specimen of *D.b. bicolor* from Java
- B: the specimen from Flying Fish Cove
- C: specimen of *D.b. spilorhoa* from Queensland

Discussion

Chasen (1933) reported this specimen as the nominate subspecies, presumably based on biogeographic grounds: he is unlikely to have seen the specimen as he was based in Singapore when writing the paper. Gibson-Hill (1947) also included it as the nominate subspecies, again without examination. Higgins & Davies (1996) referred to the specimen but gave no other details or discussion as to its identity. Schodde & Mason (1997) included *D. spilorrhoea* as part of *D. bicolor*. They noted the report of the Christmas Island specimen and tentatively recorded it as nominate *D. bicolor*. Johnstone & Darnell (2004) accepted the record without reservation. Christidis & Boles (2008) also kept *spilorrhoea* as part of *bicolor* but noted that the specimen's identity needs to be confirmed. It was also included as a valid record by James & McAllan (2014) and Menkhorst *et al.* (2017).

The species is not currently on the BARC Australian review list but is on the unsubstantiated list. Accepting this record would add the species to the BirdLife Australia Working List of Australian Birds and BARC Australian review list.

The Pied Imperial-Pigeon is not known to be a regular migrant, unlike the Torresian Imperial-Pigeon (Gibbs *et al.* 2001; Wells 1999; Jeyarajasingam & Pearson 2012; Eaton *et al.* 2016). Nevertheless, the birds observed on Christmas Island in 1899 were likely to have arrived there as a group.

References

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