

## SHORT NOTE

### Taxonomic status of the Stephens Island piopio (*Turnagra capensis*)

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The piopio (*Turnagra capensis*) was "so numerous" on Stephens Island in 1894 that "there was scarcely a bush in which at least one could not be seen" (Lukins 1894). Nevertheless, my extensive enquiries in 1966 identified only 12 extant museum specimens of piopio from that locality. Those specimens, and the museums that hold them, are:

**Übersee-Museum, Bremen:** 15080. ♂ skin. Stephens Island, 7 January 1897. Schauinsland; **Staatliches Museum, Dresden:** 16657-16661. Five specimens in spirits. Stephens Island. Received from Buller in 1899; **The Natural History Museum, London:** 1903.12.10.2. ♀ skin. Stephens Island. Purchased of W.F.H. Rosenberg (mentioned in Knox & Walters 1994). **City of Liverpool Museums, Liverpool:** B.20.12.01-24. ♂ skin. Stephens Island. B.20.12.01-24a. ♀ skin. Stephens Island. Purchased from Buller in 1901 (mentioned in Fisher 1981); **Royal Ontario Museum, Toronto:** Fleming collection 3915. ♂ skin. Stephens Island. Type of *Turnagra capensis minor* Fleming, 1915; **Carnegie Museum of Natural History, Pittsburgh:** CM 24753. (Buller no. 194c). ♂ skin. Stephens Island, 1894. CM 24754. (Buller no. 194d). ♀ skin. Stephens Island, 1895.

Fleming (1915) considered that the piopio from Stephens Island appeared to differ subspecifically from the South Island piopio (*T. c. capensis*), and named it *Turnagra capensis minor*. He said the Stephens Island bird was "like *Turnagra capensis capensis*, but smaller; back brownish olive, not raw umber as in *capensis*; concealed bases of the feathers of the back lighter". For the purposes of his paper, Fleming examined 23 skin specimens of piopio of which 11, seven from the South Island and four from Stephens Island, had specific localities on their labels. Included among those with locality information were four in the Carnegie Museum of Natural History from Sir Walter Buller's "last" collection.

Buller's so-called "last" collection of New Zealand birds was acquired by the Carnegie



**Figure 1** Specimens of piopio in Carnegie Museum of Natural History, Pittsburgh. Left to right: North Island piopio, South Island piopio, Stephens Island piopio. (Photo: Richard C. Lund)

Museum of Natural History in 1905 (Galbreath 1989). Kenneth C. Parkes, formerly Curator of Birds at the museum, advised (pers. comm. 1966) that there are six specimens of piopio in the Buller collection as follows: *T. c. tanagra* (North Island piopio) - CM 24757 (Buller no. 195b); *T. c. capensis* - CM 24752 (Buller no. 194a), CM 24755 (Buller no. 194b), CM 24756 (Buller no. 194e); *T. c. minor* - CM 24753 (Buller no. 194c), CM 24754 (Buller no. 194d). Parkes went on to say:

"Long experience with plumages of passerines has led me to believe that one of the best external criteria for first-year passerines (at least, those retaining juvenile rectrices after the first prebasic ["post-juvenile"] molt) is the narrowness and pointedness of the rectrices in these young birds. On this basis, our one *T. c. tanagra* is an "adult"; *capensis* 24752 and 24755 are "adults"; *capensis* 24756 is an "immature". *T. c. minor* 24753 is an "immature" (contra Fleming), and 24754 appears to be a one-year-old bird, replacing its narrow rectrices with the broad adult type.....

In addition to the small size cited by Fleming as a character of *minor*, several color characters are given. I cannot see his character of "concealed bases of the feathers of the

back lighter", and I would prefer to withhold judgment on the difference he ascribes in the general back color, simply because the birds are so old I am not sure what the effect of "foxing" might be. However, it appears that, age for age and sex for sex, *minor* was probably a more rufescent bird than *capensis*. The "immature" *minor* has the scapulars, rump, primary coverts, and tertials all tipped with reddish-brown. Both *minor* are more heavily washed with reddish brown on head and face, and have the streaks of the crown more distinct and extending farther back. The under wing coverts and bend of the wing are a richer reddish-buff. The central [immature in both specimens] rectrices have a narrow reddish-brown area along the shaft just anterior to the tip, not present in the rectrices of the one "immature" *capensis*.

I assume that the "Checklist of New Zealand Birds" (Fleming 1953: 68) placed *minor* "on the suspense list" because of unavailability of Stephens Island material for comparison. Based on the Carnegie Museum material, I should certainly say that *minor* is an excellent subspecies. I must say that few subspecies of passerines are as strikingly different from one another in pattern as are *capensis* and *tanagra*. In view of the obvious derivation of *minor* from *capensis*, one wonders if it might not be better to treat *tanagra* and *capensis*+*minor* as two allopatric species comprising a subspecies".

Fleming (1953) considered that the alleged subspecies, *T. c. minor*, must remain on the suspense list. Kinsky (1970, 1980) did not mention it. Turbott (1990) considered *T. c. minor* to be synonymous with *T. c. capensis*. All three authors considered North Island piopio and South Island piopio to be only subspecifically different from each other. Oliver (1955) gave each of them specific status. Olson *et al.* (1983) considered that, from their osteology, those two forms of *Turnagra* appear to be distinct species. Holdaway *et al.* (2001) and Worthy & Holdaway (2002) regard them as distinct species based on the major differences between their plumages. It is recommended, following Oliver (1955), Parkes (pers.comm. 1966), Olson *et al.* (1983), Holdaway *et al.* (2001) and Worthy & Holdaway (2002), that the North Island piopio and South Island piopio be accorded specific status, and that, following Fleming (1915) and Parkes (pers. comm. 1966), the Stephens Island piopio be accorded sub-specific status. In this event, the three piopio taxa would be known as:

North Island piopio *Turnagra tanagra* (Schlegel, 1865).

South Island piopio *Turnagra capensis capensis*

(Sparrrman, 1787).

Stephens Island piopio *Turnagra capensis minor* Fleming, 1915.

Specimens of these three taxa in the Carnegie Museum of Natural History collections are illustrated in Fig. 1.

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#### LITERATURE CITED

- Fisher, C.T. 1981. Specimens of extinct, endangered or rare birds in the Merseyside County Museums, Liverpool. *Bulletin of the British Ornithologists' Club* 101: 276-285.
- Fleming, C.A. (Convenor). 1953. *Checklist of New Zealand birds*. Wellington, A.H. & A.W. Reed.
- Fleming, J.H. 1915. A new *Turnagra* from Stephens' Island, New Zealand. *Proceedings of the Biological Society of Washington* 28: 121-124.
- Galbreath, R. 1989. *Walter Buller. The reluctant conservationist*. Wellington, G.P. Books.
- Holdaway, R.N.; Worthy, T.H.; Tennyson, A.J.D. 2001. A working list of breeding bird species of the New Zealand region at first human contact. *New Zealand journal of zoology* 28: 119-187.
- Kinsky, F.C. (Convenor). 1970. *Annotated checklist of the birds of New Zealand including the birds of the Ross Dependency*. Wellington, A.H. & A.W. Reed.
- Kinsky, F.C. (Convenor). 1980. Amendments and additions to the 1970 annotated checklist of the birds of New Zealand. *Notornis* 27 (supplement): 1-23.
- Knox, A.G.; Walters, M.P. 1994. Extinct and endangered birds in the collections of The Natural History Museum. *The British Ornithologists' Club Occasional Publications*, No.1.
- Lukins, E. 1894. Stephens Island. The French Pass and vicinity. *Colonist* 27 & 30 October 1894, 1 November 1894.
- Oliver, W.R.B. 1955. *New Zealand birds*. 2nd ed. Wellington, A.H. & A.W. Reed.
- Olson, S.L.; Parkes, K.C.; Clench, M.H.; Borecky, S.R. 1983. The affinities of the New Zealand passerine genus *Turnagra*. *Notornis* 30: 319-336.
- Turbott, E.G. (Convenor). 1990. *Checklist of the birds of New Zealand and the Ross Dependency, Antarctica*. 3rd ed. Auckland, Random Century & Ornithological Society of New Zealand.
- Worthy, T.H.; Holdaway, R.N. 2002. *The lost world of the moa. Prehistoric life in New Zealand*. Christchurch, Canterbury University Press.

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