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Source: Bulletin of the British Ornithologists' Club, 141(1) : 109-112

Published By: British Ornithologists' Club

URL: https://doi.org/10.25226/bboc.v141i1.2021.a9

Neotypification of *Catharus ustulatus* (Nuttall)

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Received 24 November 2020; revised 25 January 2021: published 9 March 2021

http://zoobank.org/urn:lsid:zoobank.org:pub:B3784182-4062-4977-BB90-10D14E4D1C88

Summary.—In a recent paper, I demonstrated that the original description of *Turdus ustulatus* Nuttall, 1840, was likely based on a specimen of *Catharus guttatus* (Pallas, 1811). Herein, I resolve this anomaly by designating a neotype that stabilises traditional nomenclature. Formal review by the International Commission of Zoological Nomenclature determined that intervention was not necessary because neither syntype from the original description is extant or traceable. This is the third in a series of papers concerning historical aspects of *Catharus* taxonomy and nomenclature.

Few genera of American birds have endured as much taxonomic confusion and disagreement as *Catharus* (Turdidae), known commonly as nightingale-thrushes or simply thrushes. The controversy traces to the late 18th century and a taxonomic amalgamation (*Turdus minor* J. F. Gmelin, 1789), which Wilson (1812) split into two species: *T. solitarius*, itself an amalgamation (!); and *T. mustelinus* (= *T. fuscescens* Stephens, 1817), which was long considered to be the first description of Veery *C. fuscescens* (Stephens), but was in fact yet another amalgamation and required a neotype to stabilise (Halley 2018). This was the confused state of taxonomy in 1836, when the first specimens of thrushes from western North America, collected by John Kirk Townsend (1809–51) in coastal Washington, USA, arrived at the Academy of Natural Sciences of Philadelphia (ANSP), where they were examined by Thomas Nuttall (1786–1859) and John James Audubon (1785–1851).

In a recent paper, I scrutinised the original description of *T. ustulatus* Nuttall, 1840, which was based on two specimens in this collection (Halley 2019). I reviewed non-print primary sources and the published literature, and prepared a series of fresh study skins of both *Catharus* species from coastal Washington—*C. guttatus* (Pallas, 1811) and *C. ustulatus* (Nuttall, 1840)—and directly compared them to two of Townsend's extant skins at ANSP. I published compelling evidence that Nuttall's (1840: 401) original description of *T. ustulatus* was based on a specimen of *C. guttatus*, a different species to prevailing usage (Halley 2019).

Neither study skin promoted as 'the only specimen' of *T. ustulatus* described by Nuttall (1840)—USNM 2040 (Baird *et al*. 1860: VII, Deignan 1961) and ANSP 23644 (Stone 1899: 19)—has a legitimate claim to type status (Halley 2019). *T. ustulatus* was based on two syntypes: (1) a female collected on the '10th of June' (1834 or 1835) that was the subject of Nuttall's (1840: 401) morphological diagnosis, and (2) a female collected on 'the 19th June [1835]' that was mentioned in a note by Audubon (1839: 203–204) and cited among the synonyms of *T. ustulatus* by Nuttall (1840: 400, 'in a note'). However, these purported types have collection dates and sex data that conflict with the accounts of Nuttall (1840) and Audubon (1839) (see Halley 2019: Figs. 3 and 6), and neither matches Nuttall's (1840) description of the dorsal plumage of *T. ustulatus*, which presents a closer match to *C. guttatus* than to *C. ustulatus* (Halley 2019: Figs. 7–8). Two extant *C. guttatus* specimens from Townsend's collection—MCZ 16298 and ANSP 16091—can also be eliminated as potential types for the same reason: original data that conflict with Nuttall's (1840) and Audubon's (1839) accounts (Halley 2019: 248).

ISSN-2513-9894 (Online)

The name *Catharus ustulatus* (Nuttall) has been in use for more than 180 years, referring to the 'russet-backed' taxon that breeds in coastal forests of western North America and migrates along the Pacific coast to non-breeding grounds in Middle America. The nomenclatural instability exposed by Halley (2019) requires nomenclatural action to resolve, irrespective of whether *C. ustulatus* and its sister taxon *C. swainsoni* (Cabanis *in* Tschudi, 1845), which has a transcontinental breeding distribution in the boreal zone of North America and migrates to non-breeding grounds in Central and South America, are classified as species (e.g., del Hoyo & Collar 2016, Halley 2019) or subspecies (e.g., Chesser *et al*. 2018).

Following independent review by a member of the Working Group on Avian Nomenclature of the International Ornithologists' Union, I applied to the International Commission of Zoological Nomenclature, a case number was assigned (Case 3817), and a notice was published in the *Bulletin of Zoological Nomenclature* (December 2019). However, two additional reviewers concluded that, although the issues raised in my application were substantive, and would require nomenclatural action to resolve, intervention by the Commission was not necessary. Therefore, neotypification of *T. ustulatus* Nuttall, 1840, may proceed according to the normal revisionary process.

Neotypification of *T. ustulatus* Nuttall, 1840

The name *T. ustulatus* Nuttall, 1840, is not unambiguously identifiable because none of its syntypes are extant and the morphological diagnosis was probably based on a specimen of a different species, *C. guttatus* (Pallas, 1811). To fix its taxonomic identity, an adult male (UWBM 79993) in the collection of the University of Washington Burke Museum of Natural History and Culture (UWBM), Seattle, WA, is hereby designated as its neotype (Fig. 1). This action stabilises traditional nomenclature and prevents confusion arising from alternative identifications. It fulfills the requirements for neotype designation in the Code (ICZN 1999) by clarifying the taxonomic application (status) of the name, as explained above (Art. 75.3.1) and at length by Halley (2019), describing, illustrating and referencing the defining characters of *C. ustulatus* and its neotype (Art. 75.3.2), providing data sufficient to ensure recognition of the specimen designated (Art. 75.3.3), providing grounds for believing that all original type material has been lost and is untraceable (Art. 75.3.4), showing that traits of the neotype are included in the original description (Art. 75.3.5), choosing a neotype collected during the breeding season in coastal Washington, where Nuttall's (1840) syntypes originated (Art. 75.3.6), and recording that the neotype is preserved in a recognised scientific institution (Art. 75.3.7). The choice of a specimen from its breeding grounds provides more stability than selecting a migrant individual with an unknown breeding locality.

UWBM 79993 is an adult female (study skin and spread wing) that was killed by a cat and salvaged on 27 June 2002 by staff of the Island Wildlife Shelter on Bainbridge Island, Kitsap County, Washington (47°38′34.35″N, 122°32′32.49″W). The study skin and spread wing were prepared by S. M. Vigallon (prep. = 23), who measured the wingspan (291 mm) and wing chord (95 mm) of the fresh (pliable) specimen before removing the skin. The bird weighed 26 g with no fat, enlarged ovaries (7 × 3 mm and smooth) and an oedematous brood patch. The skull was 100% pneumatised. No bursa was observed. Two flight feathers were missing (s9 on the right wing and rectrix 4), suggesting moult, although they may have been lost during the altercation with the cat. The stomach contained seeds. The left wing was pinned and dried in an open position with a perpendicular angle relative to the body and a straight leading edge. The outer primaries of the spread wing are worn and the tip of p7 is broken.

ISSN-2513-9894 (Online)

Figure 1. UWBM 79993, the neotype of *Turdus ustulatus* Nuttall, 1840; see text for detail of the specimen's provenance (Matthew R. Halley)

UWBM 79993 was examined by the author in 2019 at the Academy of Natural Sciences of Drexel University, Philadelphia, PA, where it was received on loan from UWBM as a candidate for neotypification. Like the fresh series of *C. ustulatus* specimens described by Halley (2019), the colour of the dorsal plumage of UWBM 79993 is browner and more rufescent than *C. swainsoni*, which is more olivaceous (see Pyle 1997: 398), and the specimen does not exhibit an obvious contrast between the back and tail, unlike *C. guttatus* and the original description of *T. ustulatus* ('Above olive-brown … the tail strongly tinged with rufous' (Nuttall 1840: 401, Halley 2019).

Diagnosis.—*C. ustulatus* is distinguished from other *Catharus* species by the combination of a buffy eye-ring, which is bold and spectacle-like, and uniform olive-brown dorsal plumage and tail. In contrast to the similar *C. fuscescens salicicola* (Ridgway, 1882), which also has olive-brown upperparts and tail, the eye-ring of *C. ustulatus* is 'full and distinct,' the breast spots are 'larger and less distinct' and there is a 'lack of emargination on p6' (Pyle 1997: 397).

Acknowledgements

I am grateful to Nathan H. Rice, Jason D. Weckstein, Guy M. Kirwan, Edward C. Dickinson, Richard Schodde and Frank E. Rheindt for commenting on early drafts of the manuscript. Gary W. Shugart and Dennis R.

ISSN-2513-9894 (Online)

Paulson salvaged and shipped numerous frozen birds for this study. Robert C. Faucett approved the loan of UWBM 79993.

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ISSN-2513-9894 (Online)