

Systematic notes on Asian birds. 31.

Eastern races of the barn swallow *Hirundo rustica* Linnaeus, 1758

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The types of two Far-eastern forms of barn swallow *Hirundo rustica saturata* Ridgway, 1883 and *H. r. mandschurica* Meise, 1934 are compared. A significant difference in the colour of the underparts is confirmed and the recognition of *mandschurica* is recommended.

Introduction

Dickinson & Dekker (2001: 131-133) discussed the barn swallows of eastern Asia and noted the varying treatment of *H. rustica saturata* Ridgway, 1883, and *H. r. mandschurica* Meise, 1934. Generally Russian authors have placed both these names in synonymy: Dementiev (1936) placed them in *erythrogaster* Boddaert, 1783, and Stepanyan (1990) placed them in *gutturalis* Scopoli, 1786. Between these dates Vaurie (1959) showed that American specimens (*erythrogaster*) had shorter wings, less deep tail forks and were less saturate in the rufous colour of the underparts than are the birds of easternmost Asia. By contrast Cheng (1987) recognised *mandschurica* as the breeding population of NE China and considered *saturata* a synonym of either *gutturalis* or *tytleri* Jerdon, 1864. Dickinson & Dekker (2001) favoured Vaurie's recognition of *saturata* and in following Vaurie kept *mandschurica* in synonymy, although they doubted that this was correct.

The types of *H. r. saturata* and *H. r. mandschurica*

Because of the usual problems of restrictions on the loan of types, the type material of *saturata* apparently had not been compared with the type material of *mandschurica*. A comparison would help in our understanding of the situation. Digital cameras and the transmission of JPEGs now allow us to make such comparisons.

The holotype of *mandschurica* should be in Dresden. In fact only paratypes are available there as the holotype (C28723) was given to Budapest some 40 years ago. The series of paratypes comprises: six adult males, seven adult females, three juv. males, two juv. females, and two unsexed specimens. The paratypes are confidently believed to be wholly representative of the taxon and it was agreed that comparisons of them with a JPEG of the types of *saturata* was worthwhile.

Comparisons

The two syntypes of *saturata* (USNM 89165 and 89166¹) were photographed (See colour plate 3) and a JPEG sent to Dresden. Comparison showed that the ventral side of *saturata* is much darker red than in all 20 paratypes of *mandschurica*. The 13 adults vary from "Pale Ochraceous-Buff" to "Light Ochraceous-Salmon" (nomenclature from Ridgway's "Color Standards and Color Nomenclature", 1912, Plate XV). The juveniles of *mandschurica* are lighter than the adults. This discovery was consistent with our expectations, as Vaurie (1954) had translated Meise's description of the underparts of *mandschurica* as "light ochraceous salmon". Vaurie added that he considered *mandschurica* closer to *saturata* than to *gutturalis* because the latter is "usually whitish" below.

The wing length of *saturata* seems likely to average a trifle longer than that of *mandschurica*. Stejneger's measurements of the wings of the types were:

male (89165): 4.70 = 119.4 mm.

female (89166): 4.60 = 116.8 mm.

Fresh measurements of the unstraightened or curved wing were respectively 116 mm and 115 mm (CMM). These can be compared with *mandschurica* (SE):

9 males: 112-115 mm. mean 114.0; sd 1.12 mm.

9 females: 109-114 mm. mean 112.1; sd 1.64 mm.

Conclusions

Based on limited comparison, the two subspecies *H. rustica saturata* and *H. r. mandschurica* seem to be distinct, and the recognition of *mandschurica* by Cheng (1987) is justified. In order to discern the limits to the breeding ranges of these two forms and of *H. r. tytleri*, and where they meet *gutturalis*, more material collected in the breeding season would need to be brought together. Such material is probably most available and most representative in Russian collections and it is hoped that the plate showing the colour of the underparts in typical *saturata* will assist museum work in both Russia and China. It might also stimulate those involved in catching adult swallows for ringing in the early breeding season in the Russian Far East, and in northern China, to take notes or photographs that would assist further. Further careful work is needed to explain the distinction in series between *tytleri* and *saturata* which have perceived as distinct by both Peters (1960) and Vaurie (1959) but are not always considered separable by Russian authors. It is also desirable to compare winter specimens from the Philippines with *mandschurica* to be sure that this is distinct from *gutturalis*; we suspect this may not have been done.

¹ For further details see Deignan (1961: 308).

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² Rendered as Démentieff in French.

