
BIRD IN THE HAND

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NOTES ON SEXING AND PLUMAGES OF THE WELCOME SWALLOW *Hirundo neoxena*

H. J. DE S. DISNEY

Research Associate, Australian Museum, 6-8 College Street, Sydney, NSW 2000

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This paper presents a new method of sexing Welcome Swallows *Hirundo neoxena* in the hand. Svensson (1984) described the sexing of its relative, the Barn Swallow *H. rustica*, by measuring the depth of the tail fork, which was used by Rogers *et al.* (1985) for Welcome Swallows. In the method used here, the sexes can be determined by the relative lengths of the 'streamer' of the outer tail feather (No. 6), the difference in length between the tip of this feather and the next (No. 5), and the shapes of these feathers.

METHODS

This work was done during observations at the breeding colony in the aviary at Taronga Zoo, Sydney (Disney 1988). Birds were caught, colour banded and measured. Measurements were also taken from sexed specimens in the Australian Museum. From these the sexes of aviary birds were deduced, with several being later confirmed by behaviour or by dissection after death.

The difference between tail feathers No. 6 and No. 5 was obtained by direct measurement with a ruler between the tips. The total lengths of No. 6 and No. 5 (tip of feather to point of insertion) were also measured with a thin metal ruler slid underneath the undertail coverts to the base of the tail (Svensson 1984). The difference between the lengths of these feathers acted as a check on that obtained directly between the tips. The lengths of No. 6 and No. 5 both vary depending on the amount of wear, but the difference between the tips usually remains much the same.

SEXING

Male

The length of tail feather No. 6 is usually 80 mm or more, but may be less, e.g., 77 mm.

The difference between the tips of No. 6 and No. 5 is 17 mm or more, usually greater than 20 mm.

Streamer No. 6 and the tip of No. 5 are longer and narrower than those of the female (Fig. 1A).

The white spot on the underside of No. 6 is usually larger than in the female, is well marked, and generally reaches the shaft (Fig. 1A).

Female

The length of tail feather No. 6 is usually about 75 mm, but may be 80 mm.

The difference between the tips of No. 6 and No. 5 is 16 mm or less, usually 12–14 mm.

Streamer No. 6 and the tip of No. 5 are shorter and broader than those of the female (Fig. 1B).

The white spot on the underside of No. 6 is usually small and generally does not reach the shaft (Fig. 1B).

Because the difference criterion depends on being accurate to a millimetre, birds with differences of 17 or 18 mm may be difficult to sex. If the length of No. 6 is considered together with the shape of the ends of No. 6 and No. 5 and the amount of white on the underside of No. 6, the sex can usually be determined. It is usually quite clear when looking at an individual whether it is a male or female. The tail can be compared to the life-size drawings (Fig. 1A, B).

AGEING AND PLUMAGE

Juvenile

In the juvenile plumage all the upper parts are dull brown, the crown, nape and mantle being darker and glossier when fresh. Tertiaries 2 and 3 (innermost secondaries 8 and 9) and the covert above have buff-white tips, which rapidly become worn. The throat and breast are pale buff, and the belly greyish white. The undertail coverts are greyish with white tips.

First-year Plumage

This plumage is acquired by a complete post-juvenile moult of the body, wing and tail feathers, and is similar to the second-year or adult plumage. At the age of three months, this moult has started (aviary observation), and at five months the upperparts are all steely blue except for the head, which is still brown with a few steely blue feathers on the nape. The scapulars and lesser coverts are steely blue. The tertiaries and their coverts have a slightly steely blue tinge when fresh. Tertiaries No. 2 and 3 and the covert above have white tips (Fig. 2A). The rest of the wing feathers are also moulting. By nine months the white tips on the tertiaries are well worn, and by the breeding season have been completely lost (Fig. 2B).

Adults and second-year birds

No difference has been found between this and the first-year plumage. Adults can be found moulting at the same time as the juveniles. Adults, too, have white tips to their new tertiaries No. 2 and 3, which are also worn off by the next breeding season. Since almost all adult museum specimens have been collected in the breeding season and most photographs have been taken of birds at the nest, this could explain why the white tips have not been recorded in plumage descriptions or shown in illustrations.

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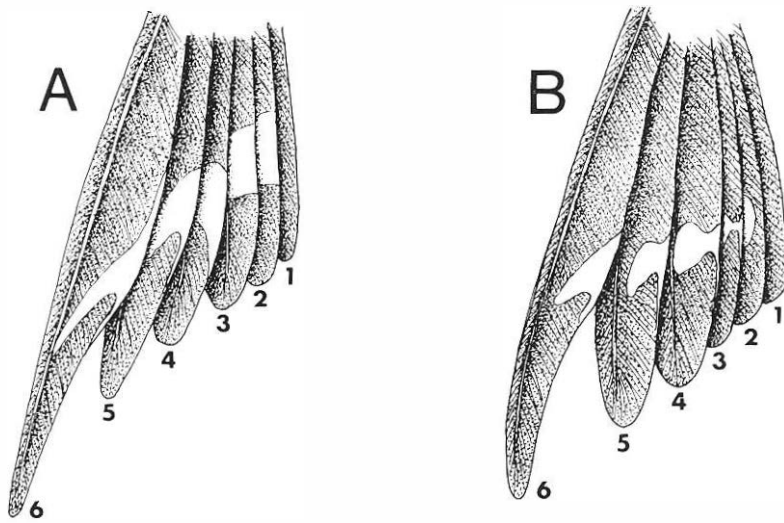


Figure 1. Sexing characters of the tail of the Welcome Swallow; underside, right side. (A) Male; (B) Female. Scale: life size.

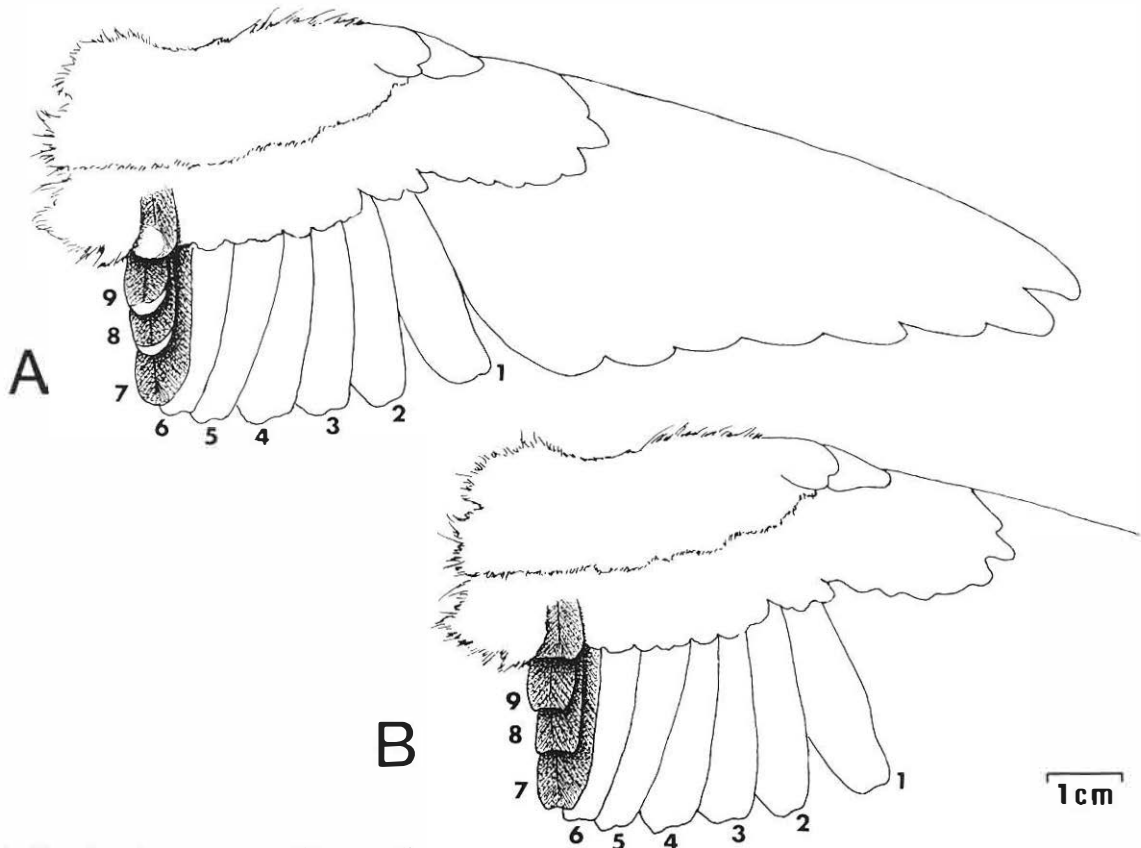


Figure 2. Tertials and covert of the Welcome Swallow. (A) White tips on innermost secondaries (tertials No. 2 and 3); (B) Worn tips with no white.