

# Ageing and sexing series\*

## Ageing and sexing of the Common Snipe *Gallinago gallinago gallinago*

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Based on field studies throughout the year in central and W Europe, we present all known ageing and sexing criteria for the nominate subspecies of the Common Snipe *Gallinago gallinago gallinago*. We have no direct experience of the subspecies *faeroeensis* which breeds in Iceland, the Faeroes, Orkney and Shetland and winters mainly in the British Isles. However, the more distantly-related North American species, Wilson's snipe *G. delicata*, is very similar in its moult to *G. g. gallinago*. Therefore we suppose that *gallinago* and *faeroeensis* are also likely to be similar. However, biometric traits, such as bill and tail-feather length, should be used with caution due to differences in the size of birds from different regions; e.g. *gallinago* from China are smaller than birds from W Europe.

The breeding range of *G. g. gallinago* covers almost the whole of Europe north of 50°. To the east, it breeds in N Russia, China and Mongolia. In Europe, autumn migration starts at the end of June or beginning of July and peak passage occurs between the end of August and the beginning of October. The main wintering grounds of the European population are in W and S Europe (the British Isles, France, Iberia, the Balkans, Turkey, the Arabian Peninsula and NW Africa). Some Common Snipe winter south of the Sahara, but the scarcity of ringing recoveries of European birds suggests that most are from more eastern populations. The snipe that breed in central and N Asia winter in India, Indonesia and China.

### MOULT SCHEDULE

Generally, moult patterns in Common Snipe (partial post-juvenile and complete post-nuptial) and the sequence of plumages are similar to those observed in other Palearctic waders (Fig. 1). However, post-juvenile moult is more extensive and includes tertials and rectrices. Moreover there is a considerable difference in the timing of moult in adults and juveniles in autumn. Most adults start post nuptial moult up to two weeks earlier (in the second 10 days of July) than the juveniles start post juvenile moult. Moreover the duration of post juvenile moult is longer (Jul–Nov).

Post juvenile moult involves the replacement of body feathers (belly, breast, head and back), upper and under wing coverts (lesser and median), scapulars, tertials and rectrices. New generation plumage is the same as in adults. Therefore once post-juvenile moult has been completed juveniles cannot be distinguished from adults that have completed post nuptial moult. Primaries and secondaries are not replaced until the first post-nuptial moult.

In late winter and spring (Jan–May) all birds undergo partial moult to attain the plumage in which they breed; however this is no different from non-breeding plumage. In this pre-breeding moult, body feathers, the tail and some of the upper,

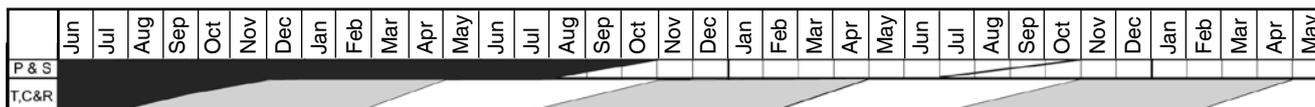


Fig. 1. Moult schedule of Common Snipe. P & S = primaries and secondaries. T, C & R = tertials, upper wing coverts and rectrices. Black = juvenile feathers, grey = winter plumage, white = breeding plumage.

\* This series summarising current knowledge on ageing and sexing waders is co-ordinated by Włodzimierz Meissner (Avian Ecophysiology Unit, Department of Vertebrate Ecology & Zoology, University of Gdansk, Al. Legionow 9, 80-441 Gdansk, Poland. w.meissner@univ.gda.pl).

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**Fig. 2.** Adult Common Snipe undergoing virtually simultaneous moult of secondaries. Note presence of contrast between old and new small coverts (August, Jeziorsko reservoir, Poland).

median and lesser coverts and tertials are renewed.

Soon after breeding, in June, often on the breeding grounds, the adults start a complete post-nuptial moult, which involves replacing all feather tracts and usually ends in August–September. However, in some cases, it might be finished on the wintering grounds in Nov–Dec. Post-nuptial moult starts with the body feathers followed by three to five inner primaries. At that time, primary moult may be suspended and birds may move to traditional moulting sites to finish it. Some may suspend primary moult a second time and complete it on wintering grounds. Fifteen per cent of adults on passage through Central Europe have suspended primary moult. While moulting primaries, birds start to moult tail feathers, tertials and greater coverts. All tertials and greater coverts are usually fully grown before the moult of the secondaries starts. However, replacement of the tail can last until flight-feather moult is nearly complete. Usually most of the secondaries are simultaneously shed before the outermost primaries obtain the final size (Fig. 2). This creates a considerable wing-gap, which is only partly reduced by the already-moulted greater wing coverts. Lesser and median wing coverts are changed throughout the whole period of flight-feather moult.

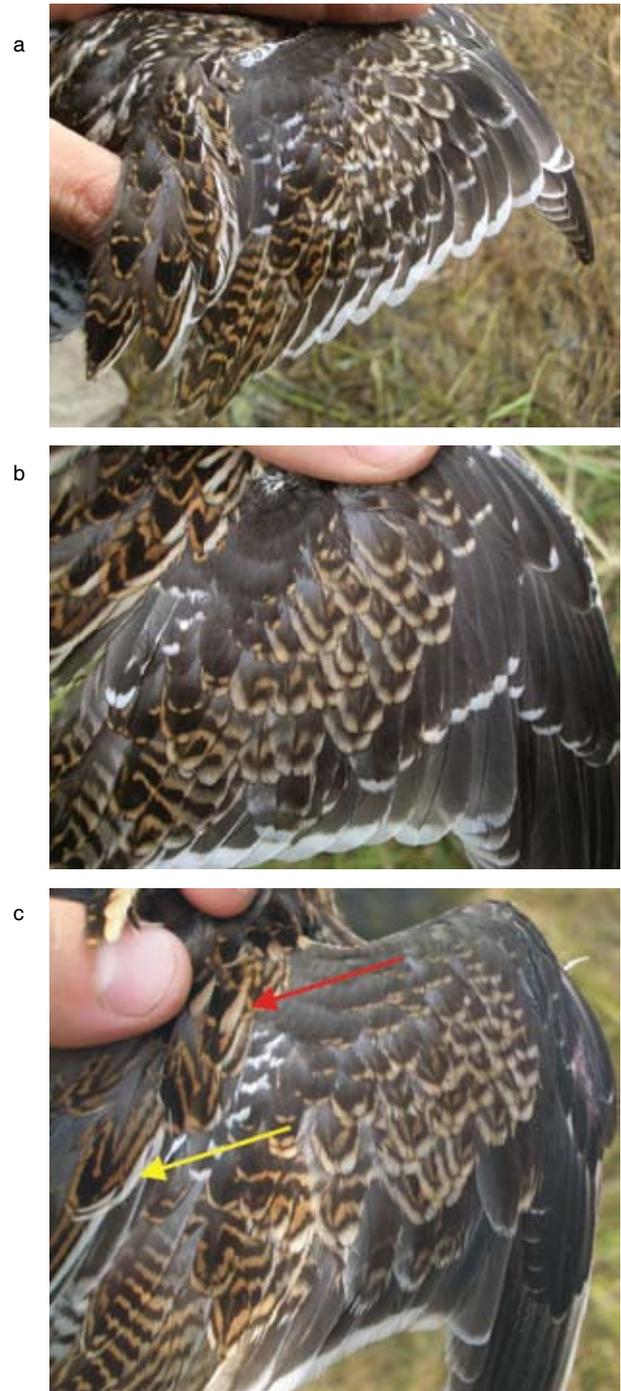
## AGEING

### Juvenile plumage

Plumage differences between juveniles and adults relate mainly to the patterns on the lesser and median upper wing coverts (Fig. 3). In juveniles, these have a predominance of warm colours (buff or tawny) and are tipped pale or brown/beige, sometimes with a narrow black subterminal band. The scapulars have a narrow white edge and an irregular brown line which is parallel to the edge (Fig. 4a). The tertials have a regular subterminal band which is parallel to the edge of the feather (Fig. 5a). The outermost tail feathers are short and narrow (width <11.5 mm measured 20 mm from the tip) and lack a distinct notch near the tip (Fig. 6a). Very often there are narrow black dots at the end of the tail-feathers.

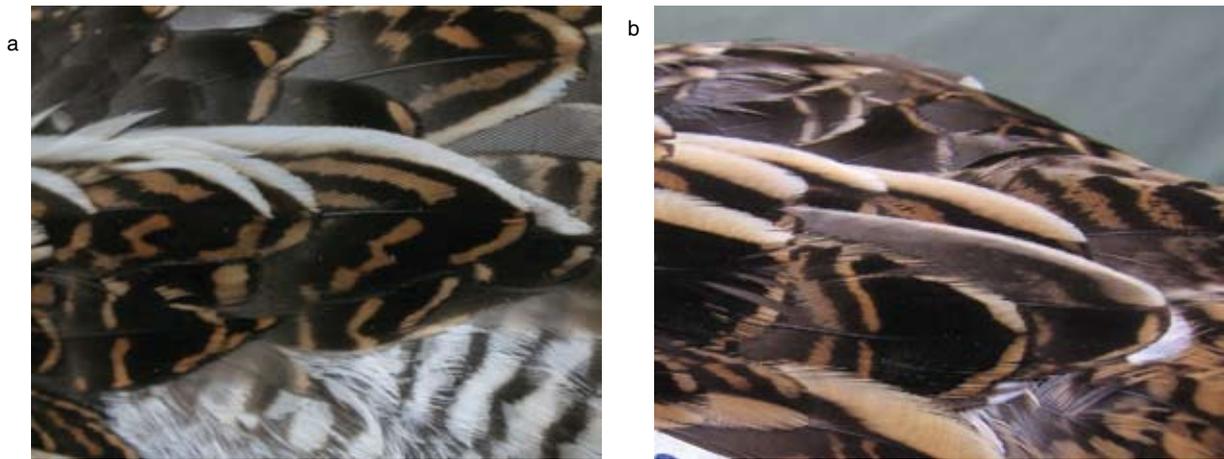
### First winter non-breeding plumage

Generally the colours and patterns of all feathers are the same as those of adults and the whole upper wing has a dominance of cool tones (whitish and grey) (Fig. 7). However, first year birds with fresh wing coverts can show rufous tones like juveniles (Fig. 8). The edges of adult-type wing coverts have

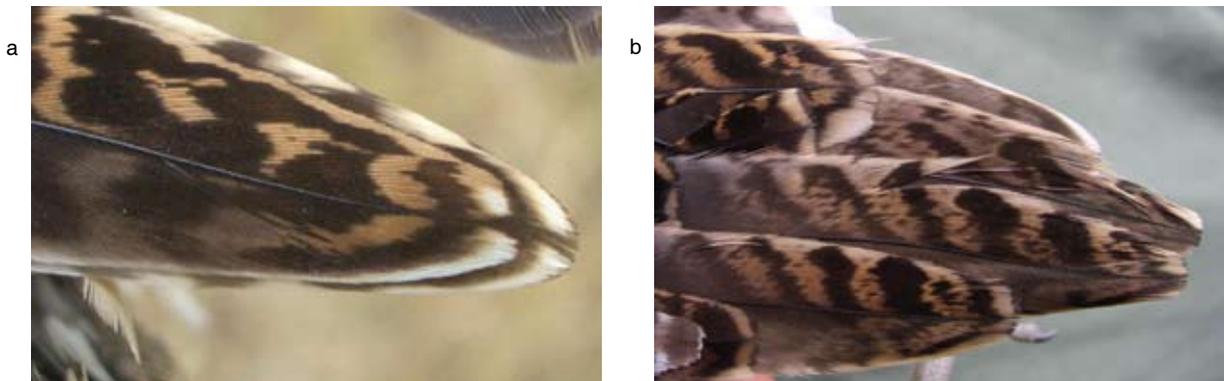


**Fig. 3.** Typical upper wing feathers of juvenile Common Snipe: a. Wing coverts, scapulars and tertials (June, Jeziorsko reservoir, Poland). b. Wing coverts (August, Jeziorsko reservoir, Poland) c. Wing coverts and tertials; two generations of scapulars (adult-type: red arrow; juvenile-type: yellow arrow) (August, Jeziorsko reservoir, Poland).

two whitish or pale spots divided by a wide, distinct black or brown shaft-streak (Fig. 8). Any subterminal band (if present) is not parallel to the edge of the feather. The scapulars are fringed with a wide beige band often with a black shaft streak (Fig. 4b). The tertials have a subterminal band which is not parallel to the edge of the feather and are edged with an irregular brown stripe adjacent to a black V-shaped line (Fig. 5b). The tail feathers are broad and long: the width of the outermost measured 20 mm from the tip is >12.5 mm (Fig. 6b). After completion of flight-feather moult (Aug–Sep in adults;



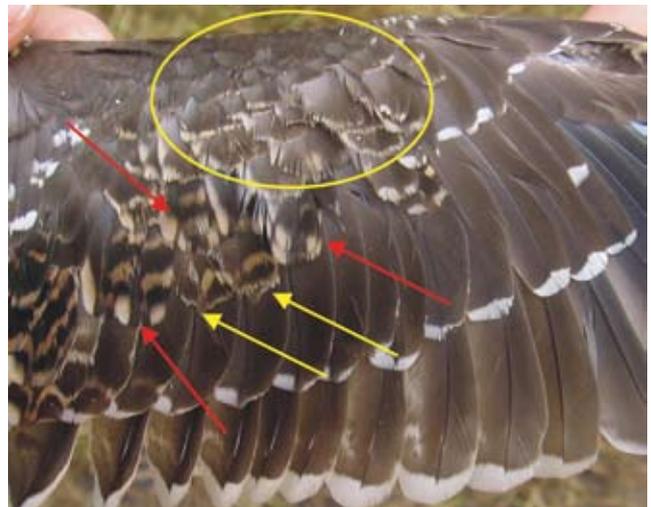
**Fig. 4.** Scapulars of Common Snipe: (a) juvenile type with wide whitish edges (July, Jeziorsko reservoir, Poland) (b) adult type with beige edges and a black shaft streak (August, Jeziorsko reservoir, Poland).



**Fig. 5.** Tertials of Common Snipe: (a) juvenile type with white edges and a black shaft streak and black stripe parallel to the feather edge (July, Jeziorsko reservoir, Poland), (b) adult type with slight beige edge and V-shape irregular black stripes (June, Jeziorsko reservoir, Poland).



**Fig. 6.** Outermost tail feathers of Common Snipe: (A) juvenile (B) adult.



**Fig. 7.** Adult Common Snipe during post-nuptial moult with two generations of wing coverts: old, very worn lesser coverts (yellow circle) and median coverts (yellow arrows); new fresh median coverts (red arrows) with black shaft streak (August, Jeziorsko reservoir, Poland).

Sep–Nov in juveniles) Common Snipes are impossible to age. However adults can be identified while they retain any old wing coverts which are pale, worn and faded (Fig. 7), and are

unlike newer warm-coloured juvenile coverts. In juveniles that are in active covert moult, there is a contrast between the patterns on the coverts, not in the degree of wear. Also the presence of active or suspended primary and/or secondary moult is only typical of adults (Fig. 9). The humeral coverts



**Fig. 8.** Wing of first winter Common Snipe showing newly moulted adult type coverts with wide black shaft streak, but warmer, more beige coloured spots compared with those of a typical adult (September, Jeziorsko reservoir, Poland).

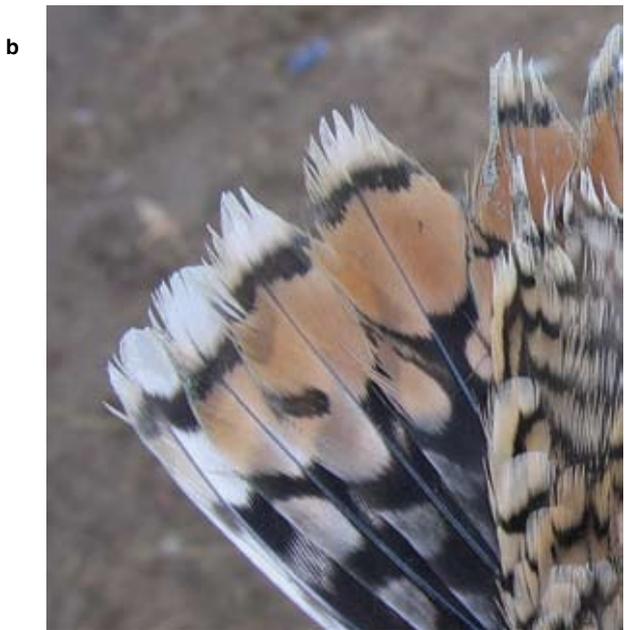


**Fig. 9.** Adult Common Snipe in active primary moult showing contrast between old (brown) and new (grey) primaries (July, Jeziorsko reservoir, Poland).



**Fig. 10.** Contrast within humeral coverts observed in adult Common Snipe in autumn.

are only moulted at the end of the post-nuptial moult of adults and two generations of these are often present until at least the end of September (Fig. 10). Juveniles have narrow, more pointed, duller and more worn primaries but this difference is extremely slight and difficult to use in the field.



**Fig. 11.** The two outermost tail feathers of (a) female and (b) male Common Snipe showing characteristically different coloration (see text).

### First summer/adult breeding plumage

This is the same as non-breeding plumage. In second-year birds wing coverts, tail feathers, and tertials are coloured and patterned as in adults. Consequently, no ageing criterion is known for second year birds.

### Ageing summary (see also Table 1)

Juvenile wing coverts, tertials, scapulars and tail-feathers are retained at least until the end of August or beginning of September, but in most first year birds some juvenile feathers are still present in October and probably even later. In that period the ageing of a considerable fraction of first year birds can be accomplished without any difficulty (*Ringing codes: EURING – 3; North American – HY*). However, birds with completely fresh feathers cannot be aged, these could be adults or first-years (*Ringing codes: EURING – up to 31 December 2, after 31 December – 4; North American – U or AHY respectively*). In autumn, any individual with active or suspended primary or secondary moult or a contrast between heavily worn and fresh wing coverts, tertials or scapulars can be aged as an adult (*Ringing codes: EURING – 4; North American – AHY*). In adults, the presence of a contrast within

**Table 1.** Summary of ageing criteria for Common Snipe.

Feather tract	Juvenile	Adult
<b>Wing coverts</b>	Dominance of warm tones Tipped pale or brown Narrow subterminal band parallel to the edge of the feather	Dominance of cool tones Tipped white or pale Subterminal band not parallel to the edge of the feather Wide black shaft streak
<b>Tertials</b>	Regular subterminal band parallel to the edge of the feather	Irregular subterminal band not parallel to the edge of the feather
<b>Scapulars</b>	White edge Narrowly fringed Brown band parallel to the edge of the feather	Beige or pale edged More broadly fringed Often broad shaft streak
<b>Tail feathers</b>	Short and narrow Outermost without distinct notch Often black dots at the end of the feather	Long and wide Outermost with distinct notch Lack of black dots at the end of the feather

**Table 2.** Summary of sexing criteria for Common Snipe.

Criterion	Juvenile		Adult	
	Male	Female	Male	Female
Bill length	<59 mm	>70 mm	<59 mm	>70 mm
Vane length of outermost tail-feather	>50 mm	<48 mm	>58 mm	<55 mm
Total length of outermost tail-feather	>58 mm	<56 mm	>62 mm	<66 mm
Colour of outer two tail feathers			Contrast between white outer feather and brown adjacent feather	Two outer tail feathers brown, lack of contrast

any group of wing feathers that arises because of feather-wear is the most important ageing criterion, whereas in juveniles it is the pattern on the feathers that is the key criterion (i.e. adult or juvenile type). Active moult of the humeral coverts is probably the best feature for identifying adults at the end of the post-nuptial moult in September. In winter, ageing is only possible for birds in suspended or still active primary or secondary moult. As far as we know, it is not possible to age Common Snipes in spring and all birds should be aged as “hatched before the current calendar year” (*Ringing codes: EURING – 4 North American – AHY*).

## SEXING

There are insufficient criteria to allow all Common Snipes to be sexed accurately. However, various measurements allow sex to be determined in up to 80 % of birds. Bill length and outermost tail feather length seem to be the most reliable sexing criteria. Regardless of age, only females have bills >70 mm and only males have bills <59 mm. Ranges of outermost tail feather length typical for each sex are presented in Table 2. In field studies vane length of the outermost tail-feather is more useful than the length of the whole feather (Table 2, Meissner & Ściborski 2005, Włodarczyk *et al.* 2006). According to CICB & OMPO (2002) the combination of outermost tail feather length and the colour pattern on the two outer tail feathers are useful sexing criteria but only for adults. Birds with a long outermost tail feather and a contrast between the outermost tail feather which has a whitish and dark brown pattern and the next tail feather which is mainly rusty brown are thought to be males (Table 2, Fig. 11b).

Females have shorter outermost tail feathers and lack of colour contrast between the two outermost tail feathers which are both mainly rusty brown (Table 2, Fig. 11a). The colour-contrast criterion is very variable and can appear to change with illumination; therefore it can be difficult to apply in field conditions. We have compared the results of sexing according to outermost tail feather length and tail feather colour-contrast and have found high incompatibility. There are no field studies that confirm the colour-contrast method, so it should be used with great caution.

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