Ageing and sexing series*

Part 3: Ageing and sexing the Common Greenshank *Tringa nebularia*

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The data presented here concern Greenshank from Europe and Africa throughout the annual cycle. Thus these descriptions should be applied to other populations, especially eastern populations, with caution.

The usefulness of tail feathers for ageing is discussed separately, because although these feathers are mentioned in some published sources as providing suitable ageing criteria, it now seems that these characters are unreliable.

The Greenshank breeds across a vast area between N Scandinavia and the Pacific coast of Russia, inhabiting mainly the zone between the southern limit of tundra and the northern limit of steppe landscapes. There are small breeding populations outside this area in Scotland, Belarus, Estonia and Ukraine. The wintering range of birds from European breeding areas spreads across sub-Saharan Africa with small numbers remaining in S and W Europe. Autumn migration begins in Central Europe in late June with the peak of adult passage in July; juveniles pass through in August. Migrant Greenshanks first appear in southern Africa in late July and early August, one of the earliest Palearctic shorebirds to arrive. They start to return from Africa to European breeding areas in March and in April and pass through central and western Europe in the first half of May.

MOULT SCHEDULE

In the temperate latitudes of Europe, juvenile plumage is replaced by first winter plumage from August (at the earliest) to late September, but continues until the end of October in the tropics (Fig. 1).

After post-juvenile moult, many juvenile inner median coverts, and also usually some outer tail feathers and rarely outer tertials remain and may be identifiable as such as late as the following autumn.

The period of the complete post-breeding moult of adults is highly variable. Some individuals start in June while still on the breeding grounds, but the majority begin replacing body feathers and a few inner primaries during migration and finish on the wintering grounds between late September and December. Primary moult is usually arrested during migration with some inner primaries new. Rarely, adults may moult all primaries at temperate stopovers before mid-October, but mostly they arrive in their wintering grounds with moult suspended at 4–8 new primaries. Primary moult is completed in the tropics between mid-November and late January.

Some juveniles replace their outermost primaries early in their second calendar year. Moult of juvenile tail-feathers takes place between October and March, but usually the two outermost are retained and these may remain unmoulted until the following northern summer.

Breeding plumage is attained by adults in a partial pre-breeding moult, which starts in late January or February and finishes in early April. Pre-breeding moult involves the head, neck, underparts, mantle and the majority of scapulars (but usually with the exception of the longest ones), tertials and sometimes also some inner median coverts and some tail feathers.

In juveniles (in the first half of their second calendar), pre-breeding moult is highly variable. Some acquire full breeding plumage like adults, but in the majority pre-breeding moult is less extensive and body-feathers are usually a mixture of breeding and non-breeding plumage. Many juveniles that over-summer in the tropics do not moult into any breeding plumage, and acquire a second non-breeding plumage in June–August directly after the first. Second year birds that do not go to the breeding grounds carry out their main large-feather moult at least a month earlier than those that have bred.

AGEING

Juvenile plumage

The upperparts are darker than in adult breeding plumage with many feathers having buffish fringes or notches. The underparts are white, but the breast has narrow dark streaks. Fresh upper tail coverts usually have a narrow black sub-terminal band and buff tip. The median and greater upper wing coverts are brownish with distinct pale buff or whitish fringes broken at the tip by a dark wedge (Fig. 2). In worn plumage, the

*This series summarising current knowledge on ageing and sexing waders is co-ordinated by Włodzimierz Meissner (address above). See *Wader Study Group Bulletin* vol. 113 p. 28 for the Introduction to the series.

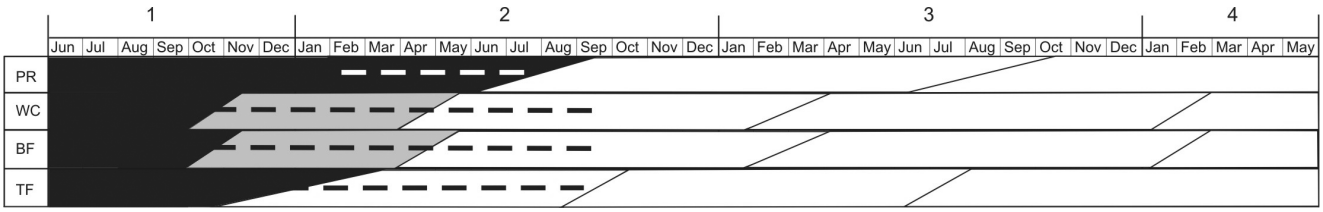

Fig. 1. Moult schedule of the Common Greenshank: PR – primaries, WC – upper wing coverts, BF – body feathers, TF – tail feathers. Black – juvenile feathers, grey – winter plumage, white – breeding plumage, black broken line – presence of retained juvenile feathers, white broken line – presence of new outer primaries after supplemental moult in some juveniles. Subsequent calendar years of life are indicated above. Due to high variability this schedule should be treated as an average scenario.

fringes of these coverts are bleached and abraded; however usually inner median coverts remain un-abraded for quite a long time (sometimes up to Sep/Oct of the second calendar) making ageing possible.

First non-breeding plumage

Very similar to adult non-breeding plumage, but many juvenile upper tail and upper wing coverts remain until at least Feb/Mar. Some birds replace up to 6 outermost primaries from January onwards and they show a strong contrast between abraded juvenile outer primaries and new inner ones. The proportion of first year Greenshanks that carry out this supplemental moult of primaries increases from the north to the south of the wintering grounds.

First breeding plumage

Some birds acquire full breeding plumage, while others look as if they are in full non-breeding plumage. They may be recognized by the presence of one of these features: juvenile median coverts, contrast between heavily worn inner and fresh outer primaries, occurrence of primary moult in May. The following features strongly suggest a second year bird, but should be use with caution: all primaries heavily worn, retention of much non-breeding feathers in late spring, outer tail feather heavily worn contrasting with fresh inner ones.

Adult breeding plumage

Mantle variable, mainly due to different width of pale fringes on feathers and amount of feathers with broad black centres. Throat, chest and flanks with dark short streaks and spots, larger than in juveniles. Different numbers of winter plumage feathers may be still present during the breeding season. The upper tail coverts are white with narrow dark grey U-shaped marks. The median and greater upper wing coverts have narrow white edges (sometimes worn) and dark sub-terminal bands or spots along the edge (Fig. 2).

Adult non-breeding plumage

Generally, the mantle looks uniformly grey with feathers fringed whitish (not buffish). The white upper tail coverts have narrow dark grey U-shaped marks. The median and greater upper wing coverts are grey with white fringes and darker narrow sub-terminal bands or spots (Fig. 2).

The fact that many juvenile upper wing coverts are retained makes ageing of first-year birds quite easy until at least March *(Ringing codes: EURING – 3; North American – HY)*. When the fringes of the median covers are worn off, the colour of the remaining feather can be helpful in ageing, because juvenile coverts are brownish while moulted winter plumage coverts are grey.

Among birds in breeding plumage, attention should be paid to the presence of any juvenile upper wing coverts

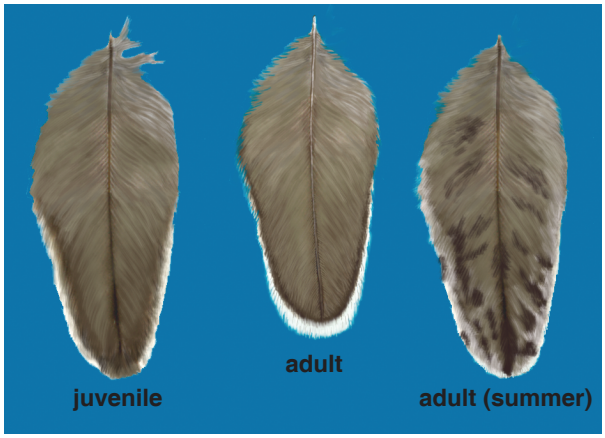

Fig. 2. Juvenile and two variants of adult Common Greenshank median coverts. (Drawing by Cezary Wójcik.)

Fig. 3. Central (1st) tail feather of adult and juvenile Common Greenshank. (Drawing by Cezary Wójcik.)

Fig. 4. Variability of the next-to-outermost (5th) tail feather of the Common Greenshank: J – typical juvenile; A – typical adult; the other three drawings show various indeterminate patterns. (Drawing by Cezary Wójcik.)

(especially inner ones) or a contrast between fresh inner and heavily worn outer primaries which is the best criterion for indicating that a bird is in its first breeding plumage *(Ringing codes: EURING – 5; North American – SY)*. Most juveniles do not moult their outermost primaries during the northern winter. Therefore in spring and summer they should have very abraded outer primaries. A strong contrast between worn outer and relatively fresh inner tail feathers is also indicative of a bird in its first breeding plumage. However, there is some evidence from other species (e.g. Redshank *Tringa totanus)* that heavy wear of tail-feathers may sometimes lead to misclassification of adults as second year birds. Other birds in breeding plumage should be aged conservatively as being in their second calendar year or older *(Ringing codes: EURING – 4; North American – AHY)*; however the majority of those with moderately worn primaries and having full breeding plumage are the most likely to be in their third calendar year or older *(Ringing codes: EURING – 6; North American – ASY)*. Birds which do not acquire breeding plumage in spring are most probably in their second calendar year *(Ringing codes: EURING – 5; North American – SY)*.

Tail feathers have been used as an ageing criterion because juvenile outer tail feathers are usually retained for quite a long time. Thus it seems that they could used for distinguishing birds in their second calendar year, because in general the dark pattern on the central and outer tail feathers differs in adults and juveniles.

In adults, the innermost (1st) tail feather has a U-shaped blackish mark along the edge at the end, while in juveniles the dark bars are more pronounced and are not parallel to the feather edge (Fig. 3). This difference seems to be a good criterion for ageing, but the inner tail feathers are usually moulted between October and March. The dark markings on the next to outermost tail feather (5th) also differ between juveniles and adults. In adults, the barring is usually faint with a narrow band on the top parallel to the feather edge. In juveniles, the bars are thicker with the end one differing in shape in comparison with adults. These tail feathers usually remain unmoulted until the next summer when the bird is about one year old. However, the patterns on the outer tail feathers are quite variable and in some cases it is hard to allocate a bird to a particular age-class (Fig. 4). Thus, the pattern on the outer tail feathers should only be used as an ageing criterion with some caution.

SEXING

There are no differences in plumage between males and females. The best measurement for separation of the sexes is bill length. However all linear measurements of males and females overlap to a great extent. Thus biometrics are only likely to be useful for sexing in the case of specific breeding pairs, where so far as is known the female is invariably larger than the male.

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