

The Use of Leg Colour as an Ageing Criterion in the Ruff

by David Pearson

I was interested to read Tony Free's comments on the leg colour of Ruff wintering in South Africa. My own observations on the subject from Kenya, summarised below, show that this character cannot be used alone as an accurate ageing criterion, but nonetheless provides a useful age guide.

There is a change from a green/grey-green juvenile leg colour to an adult colour in the orange/vermillion/pink range. This is accomplished either by a steady progression through greenish-brown, brown and orange-brown, or via a mottled state in which areas of greenish grow smaller and areas of orange larger. The mottled state is more often apparent during the later stages of the transition. In Kenya, first year Ruff can be separated from older birds on plumage until April. The characteristic golden-buff edgings of the juvenile median coverts and tertials are already worn and difficult to see by mid winter, but the edging of the innermost median coverts is retained until these feathers are replaced late in spring. Monthly numbers of female Ruff with various leg colours trapped at Lake Nakuru between October 1970 and September 1972 are given below. First year and older ('adult') birds are shown separately. 'Brown' includes all variations in the greenish-brown to orange-brown transition range.

	First Year										'Adults'									
	A	S	O	N	D	J	F	M	A	M	A	S	O	N	D	J	F	M	A	
GREEN	1	9	10	13	24	54	3	11	5		4	5	2	2	-	1	-	-	-	
BROWN	-	3	1	4	6	17	3	13	13		9	35	9	4	13	30	2	8	11	
MOTTLED	-	-	1	-	2	4	2	4	1		7	19	15	2	7	19	1	1	-	
ORANGE	-	-	-	-	-	-	-	-	-		26	122	93	36	84	232	27	61	361	

The majority of first year birds retain the juvenile leg colour until about January, but in some the transition has commenced as early as September. Most have either mottled or brownish legs by March and April, and a few have then reached an orange-brown or dull red colour close to the adult range. In older birds the proportion with other than orange legs decreases from over 50% in early autumn to about 10% in spring. Green-legged adults are occasionally trapped in autumn, but are virtually absent from December onwards. The tables suggest that the colour change commences at some time between the first autumn and the second autumn, and is usually completed during the second year.

Since first year birds have rarely been caught at Nakuru in subsequent years, retraps have provided little information on the leg colour of adults of known age. A few birds are certainly still completing the transition early in their third year. Of 36 retraps known to have been in their third year or older, all but three had completely orange legs. The exceptions, all August/September birds, were respectively orange with 5% greenish mottling, brown, and pink with 30% brown mottling. A very small number of adults perhaps never attain the normal orange colour; the last of the three retraps mentioned above was in fact at least fourth year. Nakuru retraps involving birds with transition leg colours are listed below. The complete change can evidently take more than twelve months.

Ringed	Ad	Date	Leg Colour	Retrapped	Date	Leg Colour
	Ad	1.1.71	Brown		26.9.71	Orange
	Ad	26.9.71	Mottled		29.1.72	Mottled (mainly orange)
	Ad	24.1.71	Brown		26.9.71	Orange
	Ad	31.12.70	Orange-brown		12.2.72	Orange
	Ad	11.9.71	Mottled		8.4.72	Orange
	Ad	23.5.71	Brown		8.4.72	Orange
	1W	2.1.71	Green		19.8.72	Mottled (mainly orange)
	Ad	15.10.71	Brown		2.9.72	Orange
	Ad	6.1.72	Orange		16.9.72	Orange
	Ad	26.9.72	Greenish-brown		16.9.72	Brown

Leg colour would appear to be most useful as an ageing character when taken in conjunction with wing plumage. A bird with 'adult' inner median coverts caught between August and April is probably second year if the legs are other than orange. Orange-legged birds might include a few second year individuals later in winter, but are most likely to be over two years old.

Female Ruff are many times more numerous on East African wintering grounds than males, and have accounted for 93% of the birds caught at Nakuru. As far as can be gathered from the rather small sample examined, males undergo a similar leg colour change to females, but more frequently seem to have acquired mottled or brownish legs by their first autumn.

The age proportions of Ruff wintering in Kenya appear to be very different than in South Africa. Of birds caught at Nakuru over the past two years, 18.4% have been first year, 17.5% non orange-legged adults and 64.1% orange-legged adults, most presumably in their third year or older. First year birds are rarely retrapped, and have shown little tendency to return to the area in successive years. Twelve of the 282 'adult' birds ringed in 1970/71 were retrapped the following season (four of these had yet to acquire orange legs when first handled), but not one of the 86 first winter birds. The indications are that Ruff wander more and tend to migrate further south in their first year than subsequently. From their second year, many birds apparently return to the same wintering grounds.

Most Ruff recorded in Britain are juvenile autumn passage migrants with green legs. Leg colour observations from regular British wintering grounds or indeed from European breeding grounds would obviously be of interest.

SOME RESULTS FROM RINGING DUNLIN ON THE DEE ESTUARY IN AUTUMN

by R.A. Eades

Some details of the Merseyside Ringing Group's results from ringing Dunlin on the Dee Estuary in May were given in a previous bulletin, and I should now like to look at the results from ringing Dunlin on the Dee in "Autumn", that is, in the months July, August and September, again using the data of the Merseyside Ringing Group.

The M.R.G. first started to ring Dunlin on the Dee in 1958 at Shotton Pools, Flintshire. These fresh water pools lie behind the sea wall in an area of pasture used for grazing cattle. (They were, and still are, strictly private). Cows were allowed access to the water to drink, keeping the vegetation low and the pools muddy. The habitat was very attractive to wading birds of most species, including Stints, Spotted Redshank, Greenshank, Ruff, etc. and a hundred or so Dunlin were often present in Autumn. The M.R.G. had considerable success in catching waders there, using mist-nets at night time in the new moon period. The birds flew onto the fresh pools as the tide covered the open estuary, and good numbers were caught. Between 1958 and 1964, the M.R.G. ringed 798 Dunlin at Shotton in July, August and September, the peak month being August.

In 1963 the local farmer decided to prevent his cows drinking at the pools, to prevent accidents and disease, and fenced the pools off from the pasture. A dramatic decline in the habitat then took place. Within twelve months a thick growth of Juncus reeds covered the mud, and the area lost its attraction to most waders, including Dunlin.

The M.R.G. then started to ring waders on the tidal area of the open estuary, mainly at the Point of Air, Flintshire and West Kirby, Cheshire, again using mist nets over the new moon period. Between 1964 and September 1970, a further 1895 were ringed in "Autumn" on the open shore, making a total of 2693 ringed in Autumn between 1958 and 1970. It is very interesting to see that there is a great difference in recovery pattern between the Dunlin ringed at Shotton Pools, and those ringed later on the tidal estuary. This difference was first noted by Follows (1965).