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THE DISTRIBUTION OF RACES OF THE YELLOW WAGTAIL  
OVERWINTERING IN NIGERIA

by Brian Wood

During the course of studies on the Yellow Wagtail Motacilla flava, principally at Vom on the Jos Plateau in 1973-74, I had cause also to visit other parts of northern and central Nigeria. Whilst on one of these trips, to the vicinity of Kano from 1st to 4th February 1974, I recorded the occurrence at several localities of Yellow Wagtails that appeared to be of the Italian race, M. f. cinereocapilla. On the nights of 2nd and 3rd February, Mr R. Best and I netted wagtails at a roost in a borrow pit within the city walls of Kano, a site formerly worked by Mr R.E.Sharland (Sharland & Harris 1961). Although most of the birds caught on these occasions could be ascribed to the nominate race M. f. flava, five males seemed to belong to cinereocapilla and detailed descriptions of the colour and head pattern of these birds were taken. R.B. continued to catch wagtails at this roost until the birds departed in early April, and recorded further males which he considered were also cinereocapilla.

Vaurie (1959) considered the winter range of this race to be the southern Sahara, French and Anglo-Egyptian Sudan, rejecting records from further west and east. This was accepted by Moreau (1972) who nevertheless noted that no cinereocapilla had been handled in Nigeria apart from a few at Lake Chad (Fry, Ferguson-Lees & Dowsett 1972). It does not appear previously to have been recorded for the Kano area, where Sharland (Elgood, Sharland & Ward 1966) considered the birds that he ringed to be principally flava and iberiae. This reported occurrence of the latter race was also considered remarkable by Moreau (1972), and he postulated the possibility of a migratory divide in iberiae in order to account for its African distribution. The apparent dilemma between my records and previous ones has prompted me more closely to examine the distribution of cinereocapilla and of other races of the Yellow Wagtail recorded overwintering in Nigeria.

My own data on racial distribution, and all occurrences indicating subspecies that I can find in the literature, are presented in Table 1. At first, these do not appear to conform to a set pattern. M. f. flava is found to be the commonest subspecies everywhere, although the distribution of the other races is confusing.

Two major drawbacks with data of this type are :-

(a) There is in most cases no clear indication if the races recorded are those present for the greater part of the winter, or if merely all races encountered are recorded. A single statement or count cannot hope to be representative of a possibly highly dynamic situation. Inevitably,

Table 1. Racial composition of Yellow Wagtail populations in Nigeria

LOCATION	CO-ORDINATES (N, E)	AUTHOR	SUBSPECIES				feldegg
			thunbergi	flava	iberiae	cinereo- capilla	
Lake Chad	13°30, 13°25	Fry et al. (1972)	2½%(24)	67%(669)	½%(6)	3%(30)	21%(212)
Lake Chad		Hopson (1965)	+	++		+	++
Lake Chad		Dowsett (1969)		++		+	++
Mongonu/Dikwa	12°20, 13°50	Holmes (1974)	+	+++	+	+	+
Maiduguri	11°50, 13°10	Ward (1963)	+	+++		+	+
Hadejia	12°27, 10°03	Elgood et al. (1966)	+	+++		+	+
Ringim	12°10, 09°10	pers. obs.	+++	++			
Kazaure/Dambarta	12°30, 08°30	pers. obs.		(5)		(7)	
Sokoto	13°03, 05°15	Dobbs (1959)	+	(4)		(5)	
Kano	12°00, 08°30	Elgood et al. (1966)		++	++		+
Kano		pers. obs.		++			
Bagauda	11°40, 08°20	pers. obs.		73%(24)	(1?)	24%(8)	(3)
Zaria	11°10, 07°40	Fry (1965)	+	(4)		(1)	+
Zaria		pers. obs.	+	+++		+	+
Vom	09°44, 08°48	Smith & Ebbutt (1964)	2%	83%			
Vom		pers. obs.	3%(23)	90%(638)			
Ibadan	07°28, 03°54	Elgood et al. (1966)	++	++			
Ibadan		Broadbent (1969)	6½%(8)	82½%(104)			
Lagos	06°25, 03°20	Sander (1957)	++	++			

+++ = predominant subspecies    ++ = common    + = present.    Sample sizes in parenthesis.

unless they overfly, birds that winter in the south of the country must pass through areas inhabited by more northerly wintering birds on their way to and from their Palaearctic breeding grounds. Racial composition of birds found during periods of migration will therefore present a misleading picture if represented as wintering birds.

(b) The accurate identification of those races present is essential. Where errors of this nature are made they can lead to repeated mis-statements in the literature, and confusion of the true situation. I believe that the apparently ambiguous situation recorded for Kano and localities on the Hadejia river is of this nature. The separation of thunbergi and cinereocapilla is particularly critical, as they are superficially extremely similar in appearance. This has already been noted by Ward (1963) at Maiduguri and by Fry (1965) at Zaria, who were careful to point out that some of the birds that they found there were either of the race thunbergi or cinereocapilla. Both have rather dark heads and, in most examples, lack a superciliary stripe. The one major difference is that thunbergi tends to have an all-yellow chin and throat, whereas the chin of cinereocapilla is more often white. This was the one consistent character by which I was able to separate dark-headed birds trapped at Vom and Kano. The latter always had white on the chin at least as far back as below the eye, and this was usually separated distinctly from the yellow throat and chest. At Vom, birds which I identified as thunbergi never showed this character. They sometimes had a certain amount of white on the chin, but usually very little indeed, and this invariably blended gradually into the yellow of the rest of the chin and throat. The validity of these identifications is further supported by evidence from ringing recoveries, which will be considered below.

A similar problem exists in separating cinereocapilla from iberiae. Again, both are superficially extremely similar in appearance, though the latter tends to have a much more prominent superciliary stripe, which is often completely absent in cinereocapilla. In the more popular field-guides iberiae is invariably shown with a superciliary stripe extending from the eye backwards, and no stripe between bill and eye, whereas cinereocapilla is always represented as having no superciliary stripe at all (Peterson, Mountfort & Hollom 1954; Heinzel, Fitter & Parslow 1972; Smith 1950). This is by no means a true representation of the situation. Many examples of cinereocapilla possess a white supercilium which, being much reduced by comparison with the nominate race, suggests the field-guide appearance of iberiae. Of the birds examined by Sammalisto (1961), 29% of cinereocapilla had a superciliary stripe to some extent. The variability in colouration of populations from this part of the Mediterranean basin is in fact often considerable (Sammalisto 1968a).

## EVIDENCE FROM RINGING RECOVERIES

The distribution of all reported recoveries of Yellow Wagtails ringed in Nigeria up to April 1974, together with ringing localities of all foreign-ringed birds recovered in Nigeria, is presented in Figure 1. The area within which all birds recovered (or ringed) between 15th May and 31st July (when they are likely to be breeding) is also delineated (excluding one in northern Italy on 22nd May, discussed below). Yellow Wagtails which winter in Nigeria appear to come from a very limited breeding area in Finland, the parts of the Soviet Union bordering the Baltic, and Poland. The northern part of this area, from central Finland northwards, is occupied by breeding birds of the race thunbergi, and the remainder by the nominate race flava. There is an extensive zone of hybridization between these two in central and southern Finland (Sammalisto 1968b). Most appear to migrate between breeding and winter quarters along a great circle route, and the very narrow longitudinal range of these recoveries, except around the Mediterranean basin, is noteworthy.

It seems very likely, however, that some birds wintering in Nigeria breed much further south in Europe than the area indicated here. There is one late spring recovery from Italy (22nd May), though none between then and the autumn (earliest 2nd September), nor are there any European recoveries of feldegg, which breeds in Yugoslavia, Greece and Turkey and is found wintering commonly at Lake Chad (Dowsett 1969; Fry, Ferguson-Lees & Dowsett 1972). Nevertheless, the vast majority of Yellow Wagtails wintering in Nigeria are likely to come from breeding grounds within the overall area shown here. No Nigerian-ringed birds have yet been recovered in Spain, from where, however, there are many recoveries of birds breeding from Sweden to Great Britain and wintering from Ghana to Senegal, nor further east in Russia, from where there are recoveries of birds ringed in East Africa.

Ringing recoveries therefore tend to indicate that only thunbergi, flava, cinereocapilla and feldegg are likely to be regular winter visitors to Nigeria. There is moreover some evidence from these recoveries to support the contention that northernmost breeding birds winter furthest south. Yellow Wagtails ringed or recovered at Ibadan are mostly from central and northern Finland in the breeding season, ones from Kano are largely from Poland, and Vcm birds tend to be intermediate in distribution.

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Figure 1 The distribution of all recoveries of Yellow Wagtails ringed in Nigeria up to April 1974 (●) together with ringing locations of all foreign-ringed birds recovered in Nigeria (■). Nigerian ringing sites are Ibadan, Vcm, Kano and Malamfatori (★). The area occupied by all recoveries between 15th May and 31st July is shaded, and great-circle routes passing through easternmost and westernmost Nigerian ringing stations are indicated.

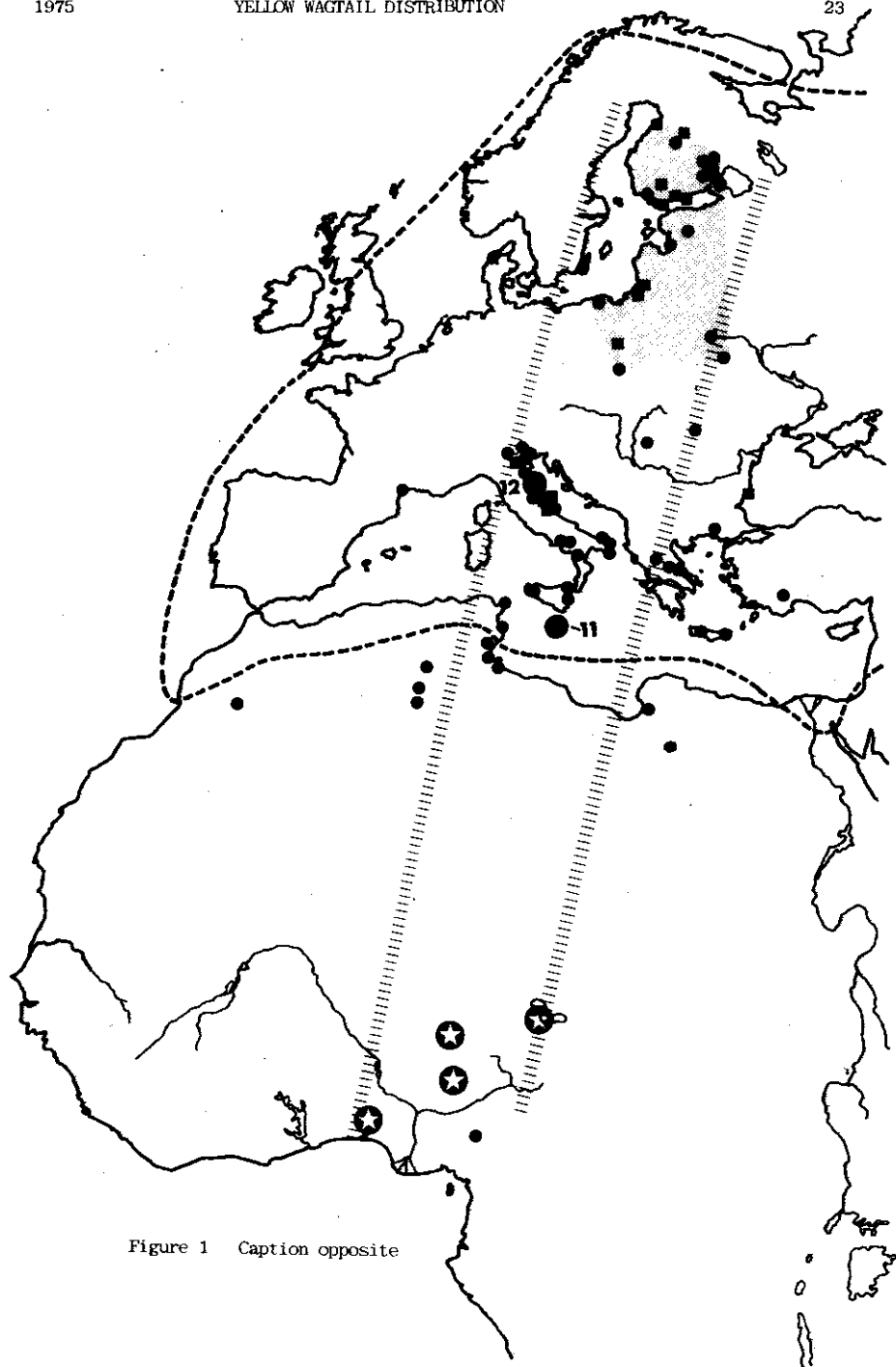


Figure 1 Caption opposite

## NIGERIAN DISTRIBUTION

If we accept that dark-headed Yellow Wagtails found wintering in the Kano/Hadejia River area of Nigeria are more likely to be of the race cinereocapilla, rather than iberiae or thunbergi, then a logical pattern of winter distribution of the races is evident. This is not to suggest that thunbergi does not occur at all in these northern areas. Indeed, as pointed out earlier, since it has been found wintering further south in the country, it is likely to occur in northern Nigeria on migration.

The distribution of races of the Yellow Wagtail overwintering in Nigeria seems therefore to be best interpreted as follows :-

M. f. flava : occurs throughout the winter range of the species in Nigeria and is almost invariably the commonest race found in any one area. In the north it is less predominant numerically over other races than in the south.

M. f. thunbergi : winters mainly in the south of the country where it may constitute about 10% of the population. Less abundant in central Nigeria, although still forming a significant component of the population on the Jos Plateau (about 3%). Further north it may occur quite commonly on passage, but does not constitute a regular component of the wintering numbers.

M. f. cinereocapilla : in the area around Kano and the Hadejia River and to the north of here, also possibly around Katsina and Sokoto, this subspecies is the second most abundant (after M. f. flava). Small numbers have also been found at Lake Chad, though this is probably to the east of the main winter range of cinereocapilla. Possibly its place is taken by iberiae only to the west of Nigeria, although separation on head colour alone is not always possible for these two races.

M. f. feldegg : a very significant proportion of the birds wintering in the north-east of the country are of this race (up to 50%). It may also occur commonly west to Nguru, and occurs regularly in very small numbers as far west as Zaria. Only a straggler further south.

Other races : constitute only an insignificant proportion of the wintering population anywhere in Nigeria, which is probably outside the normal winter range of most of them. M. f. dombrowskii is here considered only doubtfully separable from flava, although on geographical grounds it is likely to occur in the north-east of the country, being an intermediate between flava and feldegg. Sarmalisto (1968a) and Vaurie (1957) do not consider it genetically distinct. M. f. melano-grisea is lumped with feldegg, from which it is only doubtfully distinct (Sarmalisto 1968a; but see also Vaurie 1957), and is rather unlikely to occur in view of its eastern breeding range. M. f. beema intergrades with flava and is therefore not easy to distinguish. Its

reported occurrence at Malamfatori is just feasible geographically. Yellow headed birds that are claimed to be either flavissima or lutea have also been recorded. The latter race would seem more likely for the three birds from Lake Chad (Fry, Ferguson-Lees & Dowsett 1972). They are not generally separable from one another in winter quarters (Pearson & Backhurst 1973).

The overall picture presented by the winter distribution of races of the Yellow Wagtail in Nigeria is essentially one in which winter occurrence conforms to a pattern that is almost a mirror image of the Palaearctic breeding distribution. Thus, races that breed furthest south in Europe are found to winter in the northernmost parts of the country, and the most northerly breeding race, thunbergi, winters in any numbers only in the southern half of Nigeria. This situation appears to be essentially true for this species throughout its range, although in detail it is less well known elsewhere.

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