ANALYSIS OF RINGING RECOVERIES OF RUFF INVOLVING SOUTHERN AFRICA

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INTRODUCTION

The Ruff *Philomachus pugnax* is a common and widespread non-breeding visitor to southern Africa, being found almost anywhere suitable habitat exists except in mountainous regions and along most of the arid west coast where it is essentially a vagrant. Over the last 20 years a considerable number have been ringed at a large variety of stations, mostly in Zimbabwe, the Transvaal and eastern Cape Province. These having resulted in a small but interesting series of recoveries (Summers & Waltner 1979).

The purpose of this short paper is to deal with southern African recoveries in greater detail prior to publication of a more ambitious paper attempting to correlate all recoveries of Ruff from Africa, western Europe and India to Siberia, east of the Ural Mountains (60°E).

RESULTS

(a) Recoveries.

Of the 17 long-distance recoveries of southern African-ringed Ruffs to date, three were recovered within southern Africa, one each in Malawi and Uganda, one in Iran, one in Russia and eight in Siberia. In addition, two foreign-ringed Ruffs from East Germany and India have been found in South Africa. Considering the considerable number ringed in East Africa, it is perhaps surprising that none of their birds have yet been found here and only one of our birds was recovered in that region and not through the activities of that ringing scheme either. Figure 1 (overleaf) indicates recovery sites elsewhere in Africa and those sites within Eurasia as well as the source of the East German and Indian birds found here.

Of the local recoveries, the Zimbabwe to Transvaal movement concerned a first-year female ringed in September and controlled almost exactly three years later. The Transvaal to southwestern Cape was of a second-year female ringed in September and controlled in the following December, while that from Natal to the southwestern Cape was ringed in August and recovered in February 18 months later. All of these movements indicate normal ongoing

passage even if not within the same season. The Transvaal to Malawi movement involved an adult female ringed in November and recovered on southward migration in August, eight seasons later, while the Transvaal to Uganda movement was of a bird ringed in September and controlled on northward migration in April of the following year.

The bird emanating from East Germany was ringed as an adult female in August and recovered in February of the following year in the southwestern Cape, while details of a first-year female ringed in September in India and controlled in the eastern Cape in the following January have already been published (Tree 1984).

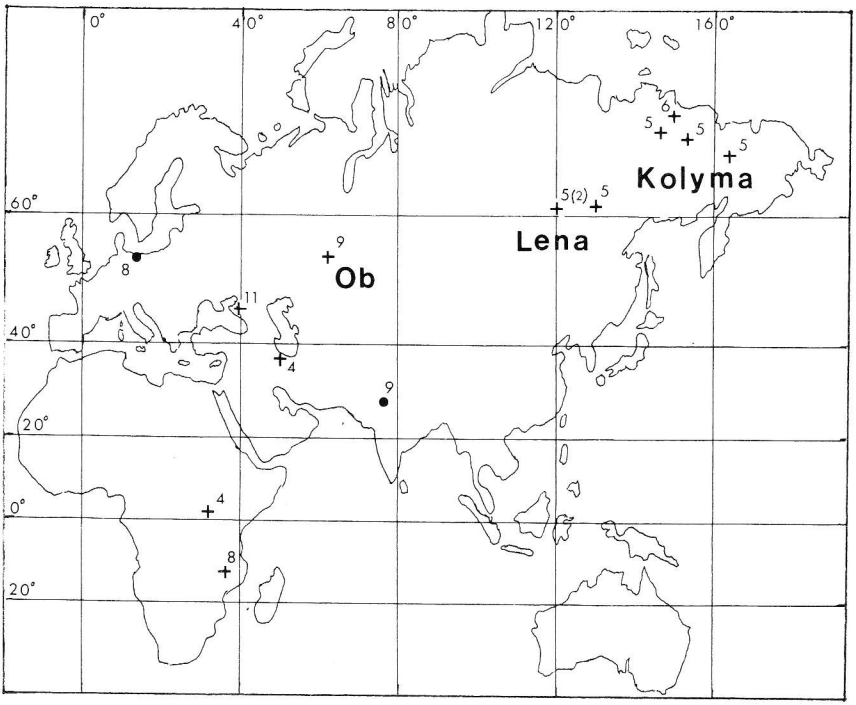

FIGURE 1

MAP SHOWING RECOVERY SITES (+) OF SOUTHERN AFRICAN-RINGED RUFF AND SOURCE (●) OF RUFF RINGED ELSEWHERE AND RECOVERED IN SOUTHERN AFRICA. THE FIGURE INDICATES MONTH OF RECOVERY WHILST BRACKETED FIGURE SHOWS NUMBER OF RECOVERIES WHERE MORE THAN ONE.

The birds recovered in Russia and Iran were both on migration. The former involved a bird ringed in Zimbabwe in April and reported as recovered the following November, a date I find rather suspect as all birds, apart from some juveniles, should be in non-breeding quarters by then. The April recovery in Iran was of an adult male ringed two months earlier in the Transvaal. The Siberian recoveries may be divided into three groups (Tree, in prep.). The first was of a first-year female ringed in November in Zimbabwe and recovered in early September six seasons later in the Ob River basin. In the second category are three birds recovered in the Lena River basin: two ringed in the Transvaal in different years and both recovered in May seven months and 19 months after being ringed, and a first-year female ringed in December in the eastern Cape and again recovered in May two and a half years later. The final category involves four birds recovered in the far eastern Kolyma River basin; an example is a first-year female ringed in December in the eastern Cape and recovered in May two and a half years later. The time elapsed between ringing and recovery varied from two and a half months to seven years and nine months with a mean of just over two years. The oldest recovered bird was ringed as an adult female in November 1975 and recovered in August 1983, and thus was at least 10 years old on recovery.

(b) Age/sex classification.

Unfortunately only 13 of the 17 birds eventually recovered were adequately aged and sexed when ringed. The remaining four were ringed before general criteria were readily available or by people inexperienced in wader ringing. Of the 13 aged and sexed by experienced ringers, four were males and nine were females.

Seven birds were ringed in their first year (including one male), two in their second year (one male) and four as adults (two males). All the males were Transvaal-ringed birds.

DISCUSSION

When southern African recoveries are integrated with those from as many other countries as possible, a clearer picture should emerge concerning both movements and origins of Siberian Ruff. However, sufficient information is now available to put a tentative interpretation on those birds visiting southern Africa. Taking into consideration all May/June Siberian recoveries, a time when all or most breeding birds have returned to their breeding grounds, it would appear that our birds come essentially from the two eastern populations of the Lena and

Kolyma basins, the majority from the latter. The September recovery in the Ob basin may well have been of a through migrant from further east. The recovery at 164°E is almost the furthest east of any Ruff recovery and, having been ringed in the eastern Cape, constitutes the longest distance ringing recovery of any land bird in the world. There is only one more easterly recovery of an Indian-ringed Ruff, at more than 170°E (McClure 1974).

The recoveries in Iran and southern Russia were both of passage migrants, indicating the normal route taken through the Black and Caspian Sea regions from breeding grounds to non-breeding quarters in Africa (Summers & Waltner 1979).

The migrant ringed in East Germany may seem rather far west for a bird migrating to southern Africa but, from a series of western European-ringed Ruff recovered across Siberia, five West German birds were found far east, two in the Lena basin and three in the Kolyma area; thus it would appear that a small proportion of these eastern birds do wander westwards into Europe before proceeding south to Africa. To what extent this occurs is impossible to assess without extensive ringing studies being carried out in Siberia with concomitant effort being made in west, east and southern Africa to determine proportions wintering in each of those regions. West Africa is the major wintering ground for European populations, but considerable ringing carried out in west and north Africa has yielded a few recoveries in the Ob basin and one (ringed in Nigeria) in the Lena basin. It is therefore very likely that the East German bird was, in fact, from an eastern population which then continued southwards to its normal non-breeding grounds in South Africa.

Finally, more information is now available relating to the Indian bird controlled in South Africa in the same season. Evidently birds wintering in India are drawn from all Siberian populations (McClure 1974), notwithstanding the erroneous statement by Ali & Ripley (1983) who consider Indian birds to be derived from a zone lying between 60°E and 90°E (the Ob/Yenesei basins). However, why a bird should migrate to India and thence on to Africa is far from clear unless it is a minor annual routeway. It is of interest to note that an adult female Ruff ringed at the same station in India a year earlier than the South African control was recovered in Kenya, also in January 1984 (G.C. Backurst *in litt.*).

The large proportion of males (4:9 females) recovered shows a definite bias towards a higher recovery rate in males as the normal ringing proportions in sub-Saharan Africa vary from approximately 8:1 to 10:1 in favour of females (Tree 1974; Schmitt and Whitehouse 1976; Pearson 1981). In the eastern Cape there has, however, been a recent trend towards a reduction

in the proportion of males. From 1966 to 1980 the eastern Cape ratio was 10:1 in favour of females whereas in the period 1983 to 1985 the ratio has changed to 15:1. The bias towards the recovery of males from east African-ringed birds is even more pronounced with the proportion of males to females at 7:11 (Backhurst, 1977, 1981 and *in litt.*).

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