

RECOVERIES AND PALAEARCTIC ORIGINS OF STEPPE BUZZARDS
RINGED IN SOUTH AFRICA

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INTRODUCTION

Over the past 25 years about 1 035 Steppe Buzzards *Buteo buteo vulpinus* have been ringed in South Africa, many of which have been used to obtain information on ageing, moult and measurements (Broekhuysen & Siegfried 1971a, 1971b, Schmitt *et al.* 1980). A substantial number of buzzards have subsequently been recovered or retrapped both in South Africa and in the Palaearctic. This paper reviews those recoveries on record (up to June 1985) at the South African Bird Ringing Unit.

RESULTS

The great majority of Steppe Buzzards were ringed in two areas in South Africa, roughly 1 200 km apart: in the southwestern Cape (33°S - 34°S x 18°E - 21°E) and in the south and central Transvaal (24°S - 27°S x 27°E - 29°E). Most of the southwestern Cape buzzards were ringed during the latter half of the 1960s while most of those in the Transvaal were caught during the 1970s. Much of the information in this paper, therefore, comes from birds caught in these two areas. However, Steppe Buzzards occur commonly in other regions of South Africa and a few additional records are available from these areas.

A total of 57 recoveries or retraps is available for analysis, 19 being birds ringed and recovered (17) or retrapped (2) in South Africa. The remaining records consist of 36 buzzards ringed in South Africa and recovered in, or en route to, the Palaearctic, and two nestlings ringed in Finland and later found in southern Africa. Intervals between ringing and recovery ranged between one and 134 months, with an average of 35.4 months. Seven of the birds had lived seven or more years, being found 81, 84, 85, 106, 109, 109 and 134 months after ringing. From the data in Table 1 (overleaf), it would appear that intervals between capture and recovery of buzzards ringed in the southwestern Cape were shorter (average 25 months) than those of other recovered buzzards (average 40 months). The difference in the frequency distribution of data in Table 1 is, however, not statistically significant. The shortest interval between a bird being ringed in South Africa and recovery in the Palaearctic was 110 days, although it is likely that the bird covered the distance of 10 575 km in a shorter period. Many of

the dates of recoveries may be somewhat inaccurate, as suggested by the recovery of a Finnish bird at Mutare in Zimbabwe, supposedly on 21 July 1981 when the bird should have been breeding in the northern hemisphere.

This Finnish buzzard was one of two nestlings ringed in southern Finland; it had been ringed at 60°37N, 27°12E, while the other was ringed at 60°14N, 14°14E and recovered near Potgietersrus, Transvaal, at 24°12S, 28°47E. Of the 36 South African-ringed birds recovered in the Palaearctic (Figure 1), 34 were found in the U.S.S.R., while two others were probably on migration when recovered further south in Saudi Arabia (24°20N, 38°30E - 7 October) and Iraq (34°30N, 41°55E - 23 April), respectively. It is interesting that both recoveries were some distance to the east of the well-known migratory routes over southern Israel and the Bosphorous (Cramp *et al.* 1980).

TABLE 1

NUMBERS OF STEPPE BUZZARDS RECOVERED AT VARIOUS INTERVALS BETWEEN RINGING AND RECOVERY, ACCORDING TO WHERE THEY WERE RINGED AND RECOVERED

RINGING/RECOVERY SITES	INTERVALS IN MONTHS			
	1-24	25-48	49-72	72+
Ringed in SW Cape, found in Palaearctic	13	2	0	2
Ringed in Transvaal, found in Palaearctic	4	9	3	1
Ringed and recovered in South Africa	6	5	3	3
Others	2	0	0	1
TOTALS	25	16	6	7

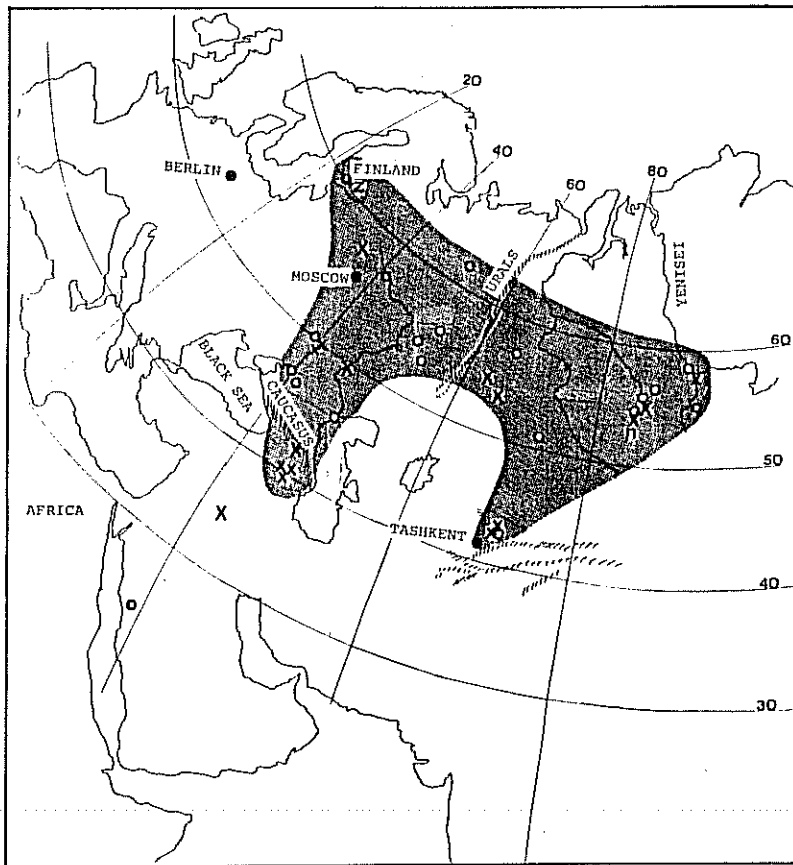


FIGURE 1

RECOVERY OR RINGING SITES OF STEPPE BUZZARDS IN THE PALAEARCTIC.

- x - ringed in the southwestern Cape.
- o - ringed in the Transvaal.
- n - ringed in Natal.

One bird (o) ringed in Finland was recovered in the Transvaal, while the other (z) was found in Zimbabwe. The approximate range encompassing the sites is shaded.

The distribution of recoveries and ringing sites (Figure 1) shows that Steppe Buzzards wintering in South Africa are drawn from a large area, stretching about 3 500 km across the central Palaearctic. Furthermore, the map shows that birds wintering in the southwestern Cape and Transvaal come from the same range in the central Palaearctic, suggesting that they mix freely on their breeding grounds (Figure 1). One bird ringed in Natal was recovered near several others from the Cape and the Transvaal. Most of the sites are in a broad band between 52°N and 62°N, stretching from 24°E in southern Finland, across the Ural Mountains, to 93°E near the Yenesei River. 11 recoveries were from southwestern U.S.S.R. in an area roughly from 40°N - 50°N and 40°E - 50°E. Four of these were Cape-ringed birds found in Armenia and Georgia south of the Caucasus, perhaps while on migration. Three recoveries were made north-east of Tashkent to the west of the Tien Shan Mountains in an area around 42°N, 70°E. The Great Circle distances moved between South Africa and the recovery sites ranged between 8 000 km and 12 000 km.

Of the 18 recoveries or retraps made in South Africa, 12 birds had made movements of less than 10 km. Four of these were found between three-and-a-half and seven years later at the same places they were ringed. The remaining buzzards made movements of 15, 16, 20, 24, 48, 59 and 858 km. The last recovery was near Cradock (32°11S, 25°11E), the bird having been ringed 15 months previously near Warmbaths at 25°00S, 28°24E at a time (12 December) when it had perhaps been in South Africa for some time.

DISCUSSION

The characters of Steppe Buzzards as a race of *Buteo buteo* are based largely on body size, plumage colouration and their pattern of migration to Africa. The morphological characters of museum skins have previously been used to describe the distribution of this race. However, the body sizes and plumages of Steppe and other buzzard races are highly variable, so it is possible that distributional ranges based on the features of collected specimens may be unreliable and differ from those of birds that migrate to South Africa. It is therefore noteworthy that the distribution of recoveries of migrants (Figure 1) is in good agreement with the range described on physical features by, for example, Dement'ev & Galdkov (1966) and Cramp *et al.* (1980).

Schmitt *et al.* (1980) compared body parameters of buzzards caught in the Transvaal with those measured by Broekhuysen & Siegfried (1971b) in the southwestern Cape. The only difference found was in wing length but this was perhaps attributable to differences in the methods of measuring. They thus suggested that Cape and Transvaal birds come from similar populations, as now demonstrated in Figure 1. It is perhaps surprising that

there is little segregation in winter between birds that breed 2 000 - 3 000 km apart across the central Palaearctic. Western Redfooted Kestrels *Falco vespertinus* breed in much the same area as Steppe Buzzards but winter predominantly in the western half of South Africa, while Eastern Redfooted Kestrels *F. amurensis* (often held to be conspecific) breed further east and winter mostly in eastern South Africa.

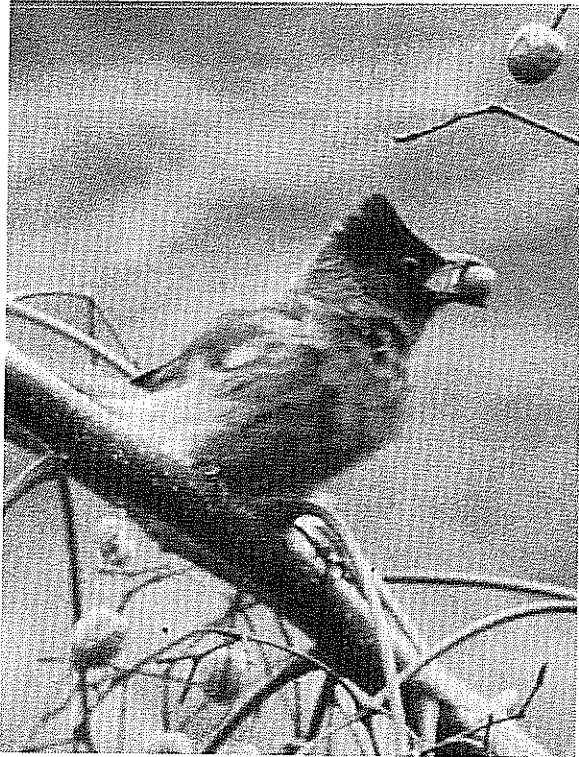
The data reviewed here are too incomplete for the estimation of survival rates, since most of the ringed buzzards are potentially still alive. Bezzel (1985) records that five wild buzzards of the nominate race are known to have lived between 21 and 25 years. It would be of interest to know what proportion of birds around at the moment were ringed 15-20 years ago in South Africa. Unfortunately, relatively little effort has been made during the past five years or so to continue trapping and ringing Steppe Buzzards in South Africa. Ringing enthusiasts should be encouraged to take up their Bal-chattris again and add to the data now available.

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Blackeyed Bulbul *Pyononotus barbatus*, about to swallow fruit of *Syringa Melia aserदारach L.*

How long do these primarily frugivorous birds live on average? SAFRING has 85 recoveries in its databank; the oldest bird, ringed as an adult in October 1965, was shot in September 1975, at the same place (Harare, Zimbabwe). The mean longevity from ringing to death of the nine oldest birds (10% of all recoveries) is 7 years 10 months. Retraps indicate a better survival rate. At the last count Dale Hammer had 13 birds that had survived more than eight years, with two of these over ten years old (cf. Hammer, D. 1985. Safring News 14: 51-60).

SAFRING records indicate that 8 416 Blackeyed Bubluls have been ringed up the end of June 1986. Thus with 85 recoveries, the recovery rate for this species is 1,0%.

(T.B. Oatley)