THE EFFECT OF RINGING NESTLING ARROWMARKED BABBLERS *TURDOIDES JARDINEII* ON FLEDGING SUCCESS

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INTRODUCTION

In a recent issue of *Safring News* (Vol 22 No.1, 1993) Oatley drew attention to a paper by Calvo & Furness (1992). In this paper the authors showed that less than 1% of bird researchers, using colour or metal rings, actually tested for bias that may have resulted from the use of these rings.

In order to ascertain the effect of ringing babbler chicks in the nest, I compare the fledging success of Arrowmarked Babbler nestlings that were ringed in the nest with those that were not.

METHODS

The breeding success of 18 groups of Arrowmarked Babblers was monitored on Mosdene farm in the central Transvaal (24°36'S, 28°45'E) between August 1992 and April 1993. The number of individuals in each group was recorded at least once every two weeks. During the incubation period, the number of individuals in each group decreased by one. By following groups during the incubation period I was able to find 13 nests made by eight of the 18 groups. All groups, including the ten groups whose nests were not found, made at least two nesting attempts. This was ascertained by the fact that the number of individuals in each group decreased by one individual for a period of time (one to six weeks) and then increased back to each group's original size (if nesting was unsuccessful), or more (if nesting was successful). In groups which increased in size, the extra babblers were always juveniles. Juveniles were distinguished from adults by shorter tails, brown eyes and lack of streaking on breasts.

Nests were visited daily, and an effort was made not to scare the incubating babbler off the nest. After hatching, the adult babblers regularly left the chicks alone in the nest, allowing me to approach and inspect the nests closely in the absence of the adults. Chicks were ringed (with both metal and colour rings) at 9-12 days after hatching. In addition, 0,4-0,5 ml of blood was removed from each chick (1% of the body weight of the chick). The average weight of these chicks was 45,9 g (range 40-53 g).

RESULTS

Of the 18 groups that bred only six groups managed to successfully fledge offspring during the 1992-1993 breeding season. Of the eight groups whose nests were found, three groups successfully fledged young (38%). Of the 10 groups whose nests were not found, only three successfully raised young (30%).

Eight nestlings from four different groups were ringed. Three of these groups successfully fledged all their hatchlings (seven in total). The single nestling of the fourth group disappeared (probably due to predation).

DISCUSSION

Although the data presented here are scant, and were collected as part of another study, they suggest that daily visits to the nest of the Arrowmarked Babbler do not increase nest failure rate. The fledging success of groups whose

nests were found was slightly higher than those groups whose nests were not found (38% and 30% respectively; the sample sizes are too small for statistical analysis).

Furthermore, seven of the eight nestlings ringed in the nest fledged successfully and were seen accompanying their respective groups two months later, suggesting that ringing and bleeding babbler chicks in the nest does not significantly affect their chances of fledging.

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REFERENCES

CALVO, B. & FURNESS, R.W. 1992. *Ringing & Migration* 13: 129-151.

Table 1. Comparative breeding success of groups of Arrowmarked Babblers with monitored and unmonitored nests

	Number of Groups	
	n	Successfully fledged offspring
Nests found (monitored)	8	3 (38%)
Nests not found (unmonitored)	10	3 (30%)
Total	18	6 (33%)