

# BROOD AFFINITY BY GREATER STRIPED SWALLOWS *HIRUNDO CUCULLATA* CAUGHT AT THE NEST

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Dr Kania writes in the introduction to his paper on **Brood desertion by Great Tits *Parus major* caught at the nest** (*Acta Ornithologica* 25: 77-105) that "It is well known that the frequency of nest desertion varies in different species and depends on the stage of development that eggs or nestlings have reached, on the weather, the researcher's conduct and other circumstances." Oatley, in reviewing the above paper in *Safring News* Vol 21 No 2, comments that "the risk of desertions following capture potentially applies to all hole nesters as well as to species building enclosed nests, such as, for example, the stripe-breasted swallows." This note is intended to indicate that when using the correct methods, the risk of nest or brood desertion by Greater Striped Swallows *Hirundo rustica* which are caught at the nest is minimal or even non-existent.

## STUDY AREA

The Greater Striped Swallow is a common summer visitor to the Witwatersrand and can be found breeding under any suitable bridge or culvert. Ten nests were studied in the Johannesburg area at sites ranging from urban to rural.

## METHODS

Swallows were caught at the nest at night by covering the tunnel entrance with a hand-held net while shining a torch down it. The birds normally left the nest immediately the torch was switched on. It was found that birds were best trapped during the night as it was almost impossible to approach the

nests during the day without flushing the birds.

After the birds had been ringed and measured they were replaced in the nest and the entrance was covered by hand or with a piece of cloth to prevent the birds from leaving the nest again. Once the birds had been allowed to settle down inside the nest the ringer could remove his hand or the cloth and leave the culvert as quietly as possible in the darkness so as not to disturb the birds.

Wherever possible the nest contents were also checked by carefully boring a hole in the side of the nest chamber; after examination this hole was plugged with Plasticine. Later visits were made to each nest to check that the birds were still present as well as to ascertain development of the eggs/chicks (if present).

## RESULTS AND DISCUSSION

A total of 19 adult birds was ringed between October and December 1992 at the nest sites. 26 visits were made to the nest sites (an average of 2,6 visits per site). A summary of these visits is provided in Table 1.

Table 1 indicates that initial captures were made at various stages of the breeding cycle *i.e.* parent birds had not yet completed the nest, when the nest was completed but no eggs had been laid and when the parent birds had begun incubating. At two nests (2 & 8) both parents were caught four times giving a total of eight captures per nest yet neither pair showed any sign of stress and went on to raise their broods

successfully. The pair of birds at nests no. 1 and 6 were caught three times each and they also showed no signs of having been disturbed.

The resilience of this species to nest disturbance is particularly well illustrated by the fact that in attempting to re-catch the pair in nest 8 on 28.11.92, I accidentally broke the nest and had to patch it up with Prestic cardboard and newspaper. The birds accepted these makeshift repairs and continued to raise their chicks in the modified nest structure.

Another possibility for the non-existent desertion rate is that all birds were returned to their nests in darkness and given time to settle down. As far as could be ascertained, no birds vacated their nests after the ringer had left the culvert.

The sample size of ten nests is deceptively small since the actual number of birds caught (and re-caught) is 49. These figures indicate that the catching of this species at the nest carries little if no risk of later desertion. It is thus apparent (in this study at least) that 'Greater Stripes' show little inclination to abandon their nests at any stage in their breeding cycle.

#### ACKNOWLEDGMENTS

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#### REFERENCES

- KANIA, W. 1989. Brood desertion by Great Tits *Parus major* caught at the nest. *Acta Ornithologica* 25: 77-105.
- MACLEAN, G.L. 1985. *Roberts' birds of southern Africa*. Cape Town: John Voelcker Bird Book Fund.

TABLE 1. Nest Condition and Contents at Different Visits

Nest no.	No. of visits	Nest conditions/contents			
		Incomplete	Complete	Eggs	Chicks
1	3		06.10.92	08.10.92	28.10.92
2	4	31.10.92	21.11.92	27.11.92	23.12.92
3	2			12.11.92	16.11.92
4	2			17.11.92*	21.11.92
5	2			{ 17.11.92 21.11.92	
6	3	21.11.92		{ 02.12.92 14.12.92	
7	2			21.11.92	14.12.92
8	4		06.10.92	29.10.92	{ 02.11.92 28.11.92
9	2			20.12.92*	31.12.92
10	2			21.12.92	31.12.92

\* Contents not verified.