Soft yet durable plastic compounds exist which merit thorough investigation for use as rings or tags as an alternative to the metallic ring.

May I propose that if the points that have been raised are acceptable, then a committee of experts should consider revising the current method of banding White Storks.

G. Currie, 3 Montrose Avenue, CLAREMONT, 7700

- 0 0 0 -

## FIDELITY TO WINTER QUARTERS BY PALAEARCTIC PASSERINES

D.B. Hanmer

At Nchalo, in the lower Shire valley of Malawi (16 16S; 34 55E), many Palaearctic passerines have been caught since early 1974, a period covering nine summers. The species for which there have been recaptures in successive seasons were Thrush Nightingale Luscinia luscinia, Garden Warbler Sylvia borin, Willow Warbler Phylloscopus trochilus, Great Reed Warbler Aarocephalus arundinaceus, Basra Reed Warbler A. griseldis, European Reed Warbler A. scirpaceus, European Marsh Warbler A. palustris, European Sedge Warbler A. schoenobaenus and the Redbacked Shrike Lanius collurio. Seventeen Spotted Flycatchers Muscicapa striata, five Yellow Wagtails Motacilla flava, three River Warblers Locustella fluviatilis, two Olivetree Warblers Hippolais olivetorum and one Icterine Warbler H. iaterina have also been ringed, but there have been no recaptures in later seasons.

Table 1 (overleaf) shows the number ringed and the number of 'final' recaptures to 30 June 1982 and, in brackets, interim recaptures because birds shown as having been last caught, for example, 6 years after being ringed, have usually also been recaught in previous years. Admittedly no bird has been caught every summer, but considering the size of the trapping area (3-4 ha), that only 60-72 m of net is used and that some thickets are difficult to net, it is a fair assumption that the birds were

TABLE 1

'FINAL' AND INTERIM () ANNUAL RECAPTURES OF PALAEARCIED PASSERINES AT NCHALO, THE NUMBERS RINGED AND THE PERCENTAGE WHICH HAVE RETURNED AT LEAST ONCE

Sp.	YEAR AFTER RINGING								T	g <sub>o</sub>
	1	2	3	4	5	6	7	Return	Ringed	Return
TN	2(1)	(1)	1					3(2)	74	6,8
GW	8 (4)	2(3)	1(2)	2	2			15(9)	299	8,0
WW	2							2	20	10,0
GRW	14(4)	2(2)	1(2)	1(1)	(1)		1	19(10)	325	8,9
BRW	5(2)	2(2)	(1)	1(1)		1		9 (6)	75	20,0
ERW			1					1	7	14,3
EMW	6(2)	1(2)	2(1)		(1)	1		10(6)	139	11,5
ESW	1	1						2	204	1,0
RBS	1							1	55	1,8

TN = Thrush Nightingale BRW = Basra Reed Warbler

GW = Garden Warbler ERW = European Reed Warbler

WW = Willow Warbler EMW = European Marsh Warbler

GRW = Great Reed Warbler ESW = European Sedge Warbler

RBS = Redbacked Shrike

present every year, but failed to be caught on some occasions. Some individuals of Great Reed, Marsh and Garden Warblers in particular, plus a few Basra Reed Warblers which have been recaught over several years, have only been caught once in a season at approximately the same time of year, each year. These birds presumably overwinter further south but appear to keep to the same route and timetable each year.

Some birds have been recaught several times in a season, which suggests that they overwinter in the trapping area. Many of these birds have been recaught regularly in the same place and they appear to show considerable fidelity to one thicket or clump of bush. As a result, loss of a patch of suitable habitat has usually meant the loss of the birds which vacationed there. There has been much bush clearance in the trapping area and there has been a noticeable reduction in recaptures of older birds. Since a bird normally caught in one thicket was seldom recaught after the thicket was eliminated, it would seem that these birds are somewhat territorial in their winter quarters, as displaced birds did not move into already occupied thickets. However, in the Great and Basra Reed Warblers, this territoriality probably only applies to their daytime haunts as most of them usually spend the night in a small patch of bulrush where, judging by the numbers, they must have been sitting cheek by jowl.

In Table 1 a 'percentage return' has been calculated, including all interim and 'final' annual recaptures. From this one can compare apparent fidelity. The Basra and European Reed Warblers are more or less at the southern limit of their winter range and these show the highest return figures, although the figure for the European Reed Warbler is not based on reasonable numbers. All the Acrocephalus warblers show a fairly high percentage return, except the European Sedge Warbler, but the trapping area does not include much suitable habitat so most birds of this species probably just pass through, to and from the marshes to south and east and the cane fields to north and west.

The Willow Warbler shows a 10% return, but numbers are too small. The Thrush Nightingale is low, but this species has been considerably disturbed by habitat destruction; it is probably as faithful to its winter quarters as is the Garden Warbler. A reasonable number of Redbacked Shrikes have been ringed, with only a 1,8% return, which does not suggest great fidelity to my garden and the wagtail and flycatcher do not seem to show any fidelity at all. In general it would appear that it is the warblers which show the greatest fidelity to their winter quarters at Nchalo.

Mrs D. B. Hanmer, Sucoma, P/Bag 50, BLANTYRE, Malawi