Ring wear in Sociable Weavers *Philetairus socius*

Rick Nuttall

National Museum, PO Box 266, Bloemfontein 9300; ornito@nasmus.co.za

Bird ringers catch and ring birds for a variety of reasons; all of these, however, contribute to improving our understanding of birds and their biology. The unique numbering system allows us to 'track' individually marked. Critical here is that we should be able to trace individual birds for as long as possible while the birds are alive, and, in some cases, even after birds have died. The inscription on a ring therefore should be clearly legible for at least the lifetime of an individual bird, and the material bearing the inscription should also weather the effects of time and the elements. Corrosion (e.g. by saline water) is one of the factors that may affect the legibility of ring numbers.

This short note illustrates how physical abrasion specific to the environment and daily habits of the Sociable Weaver can drastically affect the legibility of information on a ring and thus the effectiveness of putting in effort to ring this species.

Recapture data (Table 1) from a flock of 23 Sociable Weavers mistnetted at Sandveld Nature Reserve (27°41'S, 25°42'E), Hoopstad district, Free State, South Africa, revealed interesting results concerning the amount of wear evident in 3.0 mm aluminium (AL) rings, as opposed to a stainless steel (SS) ring of the same size, over a maxi-

Table 1. Ring wear in Sociable Weavers retrapped at Sandveld Nature Reserve.

Ring no.	Ringed	Controlled	Elapsed time	State of ring	Material
BC74377	11 July 1997	31 May 2001	3y 10m	good	SS
BD46392	18 September 1997	31 May 2001	3y 8m	worn	AL
BD46399	18 September 1997	31 May 2001	3y 8m	badly worn	AL
BD46400	18 September 1997	31 May 2001	3y 8m	worn	AL
BD46402	18 September 1997	31 May 2001	3y 8m	badly worn	AL
BD46437	18 September 1997	31 May 2001	3y 8m	badly worn	AL
BD46441	18 September 1997	31 May 2001	3y 8m	badly worn	AL
BD47584	18 April 1999	31 May 2001	2y 1m	good	AL
BD47590	18 April 1999	31 May 2001	2y 1m	slightly worn	AL
BD47628	18 April 1999	31 May 2001	2y 1m	slightly worn	AL
BD47649	18 April 1999	31 May 2001	2y 1m	slightly worn	AL
BD47669	18 April 1999	31 May 2001	2y 1m	good	AL
BD47677	18 April 1999	31 May 2001	2y 1m	badly worn	AL
BD47678	18 April 1999	31 May 2001	2y 1m	good	AL
BD68258	18 April 1999	31 May 2001	2y 1m	good	AL
BD68272	18 April 1999	31 May 2001	2y 1m	good	AL
BD68273	18 April 1999	31 May 2001	2y 1m	good	AL
BD68274	18 April 1999	31 May 2001	2y 1m	good	AL
BD68278	18 April 1999	31 May 2001	2y 1m	good	AL
BD54422	28 April 2000	31 May 2001	1y 1m	good	AL
BD54434	28 April 2000	31 May 2001	1y 1m	good	AL
BD54435	28 April 2000	31 May 2001	1y 1m	good	AL
BD54436	28 April 2000	31 May 2001	1y 1m	good	AL

mum period of 3 years and 10 months. Of the 23 birds recaptured, 22 were ringed with AL rings, while a single bird had been ringed using a SS ring.

It is clear from this data that inscriptions on 3.0 mm aluminium rings *may* still be legible two years after ringing. Other rings used for this same period showed severe wear, so that the numbers were barely legible (slightly to badly worn, Table 1). Discrepancy in the wear of AL rings over this period may relate to the different ages of these rings; the rings showing more extensive wear had presumably been purchased some time before those (BD682-series) showing less wear (used by a more recently qualified ringer). Inscriptions on AL rings still present on Sociable Weavers after 3.5 years were very difficult to read, while the number on a SS ring, read 3y 10m after ringing, was still perfectly legible.

This data clearly indicates that AL rings should not be used to ring Sociable Weavers, unless the results derived from ringing these birds are aimed at answering specific questions during a maximum period of two years after ringing only. Any meaningful longer-term studies concerning longevity, survival and inter-colony movements require the use of SS rings.

Sociable Weavers inhabit arid areas with sandy soils. These birds spend much of their time during the day foraging on the ground; abrasion by sand particles may cause minimal wear to AL rings. However, the weavers roost each night and breed in nests constructed of coarse grass stems. While birds would thus use these nests on a daily basis as roosts, the rate at which birds move in and out of the coarse grass entrances of their nests during the breeding season would be substantially higher. The abrasive effect of this nesting material is clearly evident on the AL rings of the Sandveld birds.

Although the use of cheaper AL rings may result in higher numbers of birds being ringed at comparatively lower cost than when more expensive SS rings are used, the longer-term contribution of such a practice is questionable. Is it worth spending the amount of time, money and effort ringing large numbers of birds with rings of a soft material such as aluminium, which is easily abraded through the normal roosting and nesting behaviour of a species such as the Sociable Weaver? If possible, rather invest in a longer-lasting ring material, which ultimately will pay higher dividends from the point of view of longer-term research objectives.

Editor's note:
Colour rings used on Sociable Weavers also fade quickly or even fall off (Rita Covas pers. comms).

Nest of Sociable Weavers.