Stainless steel versus aluminium alloy rings

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A Cape Sparrow ringed on 1 April 1991 with a stainless steel ring was recovered on 2 December 2001 in the same garden where it was ringed 10 y 8 m before. The ring number F19689 was in very good condition, although there was some wear at the bottom of the ring in the form of rounding of the edge and polishing, but all numbers and letters were as new. This bird was controlled once during this time, namely on 16 December 1997.

Four weeks after the above recovery a control of a House Sparrow was made. It had been ringed with an aluminium alloy ring, number F50686, on 12 May 1994 and was controlled on 26 December 2001, 7 y 7.5 m after ringing. The condition of the ring was poor and it was worn to such an extent that one of the numbers was barely legible. The ring was also very thin and I decided to replace it with a new Incoloy ring. When I removed the ring using the modified circlip pliers, the ring was so thin that it tore.

Seeing that both birds were sparrows their habits would be much the same and one could say that wear should be nearly equal in both cases. This would bring the question to mind whether one should use aluminium alloy rings on birds with a long lifespan or birds with specific habits, e.g. living on the ground.

It would be a great shame and a waste of time and money if one had ringed a bird many years ago and when it is recaptured the ring is illegible. Fortunately by the time the recapture of the House Sparrow was made I had already decided to use only Incoloy rings for birds using 2.8 mm rings, because at present the pure aluminium rings are not of good quality and already show a lot of wear after 12 to 18 months.

However, I also controlled two birds with aluminium alloy rings, a Cape White-eye (AD56506) on 31 January 2002 and a Greater Striped Swallow (AD56401) on 14 January 2002 after respectively 5 y 11 m and 6 y 9 m and the rings were still in perfect condition with only some polishing at the bottom edges of the rings.

Looking at the total picture it becomes clear that there are quite a few considerations you have to bear in mind when deciding what kind of ring to put onto a bird when you ring it.