Evidence for eclipse plumage in the Lesser Doublecollared Sunbird

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As far back as 1983 the late Rob Martin wrote in *Bokmakierie* (35: 67) on 'Possible eclipse plumage in the Lesser Doublecollared Sunbird'. The literature up to then had been quite adamant that the male of this species (*Nectarinia chalybea*) did not go into an eclipse plumage and that birds seen in partial adult dress were immature. However, Rob found that during the months of December and January he was unable to find a single male in full adult plumage. Many females and birds showing a trace of red on their chests were found at this time and he asked where the adults were if these birds were immature males? On the strength of this he concluded that most adult males are in eclipse plumage during this period.

He also noted that because the Lesser Doublecollared has a shorter breeding season (June to October) in the south-western Cape than elsewhere, eclipse would be more synchronised there than in areas where the breeding season is longer. The more extended the breeding season, the greater likelihood of some adults being in full nuptial dress in all months, leading observers to conclude that birds in partial breeding dress are immature, not eclipse adults.

At Bathurst, in the Eastern Cape, the severe drought and very intermittent rains of the last two years have resulted in a haphazard flowering of some nectar-rich trees favoured by sunbirds. This in turn attracted sunbirds at times when they do not normally occur in my garden. After an unseasonal, but short, February flowering of a *Schotia afra*, which attracted a flurry of sunbirds, mostly Grey *N. veroxii* but no Lesser Doublecollared (which favour this tree above all others), a Weeping Bottlebrush *Callistemon* sp. briefly came into flower in early March, attracting mainly Lesser Doublecollared Sunbirds. A few of these were caught, including one that had been ringed as an adult male in full nuptial plumage in the previous October. Based on plumage at the time of recapture, this bird would have been treated as a sub-adult male. Both this bird, and another eclipse male caught at the same time, had almost completed moult of the mantle and were in the late stages of moult of the red breast band. However, the heads of both birds were still brown with about 10% and 30%, respectively, glossy green feathers, mainly on the nape. The gapes were checked carefully and found to be the black of the adult. Both birds were a little over halfway through their wing moult and the outer primaries were faded and worn, a feature that would not be seen in an immature at this time of year. Another male caught on 2 April was also assuming nuptial dress and had completed wing moult.

Further support from past records is as follows: indisputable adult males have been caught in Bathurst up to 7 December and not again until 9 March. In my late 1960s ringing records from Grahamstown, where most birds were ringed December/March and June/July, I caught adult males up to 6 December and not again until 10 March. One ringed as a juvenile male, based on plumage and measurements, on 7 December 1967 was recaptured on 28 March 1968 as a sub-adult male; was this bird in eclipse when ringed or was it a definite juvenile? Between those dates I have handled several birds that I aged at the time as immature or sub-adult with birds of the latter age classification caught up until 18 April.

Les Underhill kindly went through the ringing records of the late George Underhill. One bird ringed as an unsexed juvenile on 9

November 1992, was retrapped as an adult male on 3 July 1993. It was again retrapped as an adult male in full nuptials on 9 August 1993 and then on 13 November 1993 as an adult male with 2% nuptial plumage; again retrapped as an adult male on 23 August 1996.

Observations of the seasonal occurrence of sunbirds tend to be biased by observations of males in breeding dress. In the Bathurst area, Lesser Doublecollared Sunbirds appear to be rare or absent during summer: I have very rarely seen birds with traces of breeding plumage in December, and have never seen them in January.

In Zimbabwe I found that the closely related Miombo Doublecollared Sunbird *N. manoensis* virtually 'disappeared' during the December/February period but that the adult males would reappear in the area in the latter half of March. Some of these showed traces of brown plumage on the head in later years. In retrospect I think it very likely that this species may also go into an eclipse plumage and that 'brown-headed' individuals were just completing the transition from eclipse to nuptial plumage.

The earlier findings together with the limited data presented above should offer sufficient proof for the fact that the Lesser Doublecollared Sunbird does have an eclipse plumage and that there is a strong possibility that the same is true for the Miombo Doublecollared Sunbird. Does anyone have documented proof of eclipse in the Greater Doublecollared Sunbird *N. afra*?

I would like to thank Phil Hockey for reading and commenting on the original draft of this article and to Les Underhill for taking on the daunting task of extracting information from his father's copious ringing data.

Male Greater Doublecollared Sunbird. Photo by D.H. Oschadleus.