

# Moult and eclipse plumages of Malachite Sunbirds in the Free State

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Malachite Sunbird moult data were collected during a study of their movements in the Free State between May 1990 and May 2000. Primary, secondary and tail moult were recorded in 303 males, 129 females and 112 unsexed individuals. Primary moult in males was between February and August, peaked in May–July, and tail moult was between April and August with central tail feathers growing again between November and March. Female and unsexed birds had primary moult during the same period as males and tail moult in unsexed individuals was between February and August.

It was also found that the mean monthly body mass of males increased during June/July, i.e. during active moult into their eclipse plumages and when the sunbirds are on local migration. Male sunbirds moult into their eclipse plumages from late February/March

onwards and again into their breeding plumages from early August. A few individuals, captured during early July, were already in their breeding plumages.

Some first year sunbirds, which were in eclipse plumages without central rectrices and with outer rectrices edged white (similar in females), were sexed as males because moulted green feathers were present on their body. In some individuals, only one or a few green feathers give indication of their sex, while in others these body feathers covered larger areas.

Adult males have long central rectrices which were mostly abraded during May–July (or freshly lost). The occurrence of tail moult during the breeding season is probably because these feathers are replaced as soon as they start abrading. These feathers probably have a function in sexual selection.

