

ANGRY BIRDS! TERRITORIAL AGGRESSION BETWEEN SUNBIRDS AND CARPENTER BEES IN TANZANIA

by Jeff Ollerton & Clive Nuttman

Many different types of animals show aggression to one another when defending territories and resources such as food or nesting sites. During field work in rainforest in the Eastern Arc Mountains of Tanzania we observed male Eastern Olive Sunbirds defending their territories against large carpenter bees. These territories are centred on good quality nectar sources, in this case the flowers of a climbing member of the cucumber and squash family (Cucurbitaceae). Our observations showed that the bees are aggressively driven away from flowers when spotted by the sunbirds. They are chased rapidly through the forest, the birds snapping at the bees as they fly. The bees are almost certainly the main pollinators of the plant as the birds do not pick up pollen from the male flowers and were never seen visiting female plants which have nectarless flowers. This behaviour may mean that pollen is moved more frequently and further away from the male plants, which could have a positive effect of the plant's reproduction. However this aspect requires more research. Although this study is one of only a handful that has shown aggressive competition between sunbirds and bees, it is probably more common than we realise.



Top: Male Eastern Olive Sunbird feeding on nectar in flowers of male cucurbit flowers (*Lagenaria sphaerica*).

Bottom: Female bee (*Xylocopa nigrita*) visiting flowers.

Note that the head and body of the bird is not coming into close contact with the anther cone of the flower while the underside of the body of the bee is in contact.

Photographs by Anna Rausch.