

Short Note

Armoured Bush Cricket attacks on nestling Red-billed Quelea (*Quelea quelea*)

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Whilst inspecting a breeding colony of Red-billed Queleas, *Quelea quelea*, amongst *Acacia mellifera* trees 8km north of Gumare, Botswana (19°17'36"S, 22°10'48"E) on 12 March 1999, we observed that many nests had Armoured Bush Crickets (also known as Armoured Ground Crickets, Corn Crickets or Koringkrieke), *Acanthoplus discoidalis* (Walker), on them. Closer inspection revealed that many of these insects were entering the nests or were already inside. Several nestlings in these nests were bleeding. We were thus able to confirm a report by Mr Kekopamang Mbwe, a scout of the Division of Plant Protection, Ministry of Agriculture, Botswana, that the crickets attack quelea nestlings. Mr Mbwe reported that they even kill very young birds, but we did not see nestlings dying from the attacks. Similarly, at a colony in the Northern Cape Province of South Africa, Anderson *et al.* (1994) suspected that *A. discoidalis* were killing Red-billed Quelea nestlings but only saw the insects eating dead chicks in the nests or corpses of fledglings pinioned on thorns. Anderson *et al.* did report, however, an observation by Richard Liversidge that the crickets killed nestlings of the Desert Cisticola, *Cisticola aridula*. In addition, Steyn and Myburgh (2000) found seven Armoured Bush Crickets in a nest of the Rufous-eared Warbler, *Malcorus pectoralis*, near Brandvlei, also in the Northern Cape Province, and blamed the crickets for frequent disappearances of chicks from nests.

Armoured Bush Crickets, in common with queleas, are pests of sorghum and millet in many parts of southern Africa and occasionally attack other crops (Green *et al.* 2001). During outbreaks such as occurred in 1999, when thousands of *A. discoidalis* can be concentrated in close proximity, they are seemingly omnivorous and scavenge opportunistically on whatever is available, including road-killed mammals and birds, or dead and injured members of their own species. The mandibles of *A. discoidalis* are sharp and sufficiently powerful to draw human blood, so quelea chicks inside a nest face serious injury and even death from cricket attacks. As *A. discoidalis* are capable of orientating towards acoustic/vibrational cues and to volatile chemicals (SV Green *et al.* unpublished), it is possible that the crickets can locate nestlings and identify which nest to approach from some distance.

Many *A. discoidalis* were also present at another Red-billed Quelea colony in Botswana near Samedupi (20°08'13"S, 23°31'07"E) inspected on 16 March 1999. Among a sample of newly-fledged queleas that we caught in mist nets were some with stunted bills. These birds had varying amounts of the distal halves of both upper and lower mandibles missing. Two that were photographed had complete or nearly complete lower mandibles but their upper mandibles were reduced to stumps covered at their ends with black scar tissue. We have not previously observed such deformities and we speculate that they could have been caused by Armoured Bush Crickets nibbling at the bills of nestlings, when their mandibles were still soft. However, other causes are possible such as the virus in the smallpox group that Barre (1974) found causing lesions on the basal half of the dorsal surface of the upper mandible and covering the nares of a 10 day old chick of *Q. quelea* in Chad: a photograph of this bird shows the upper mandible with a stunted tip. The prognoses for the injured birds could not have been good, as they would have had considerable difficulty in feeding.

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