## Turtles take Red-billed Quelea (Quelea quelea)

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In November 1997 we (B & D Königstedt, S & D Robel) undertook a round trip of the Etosha National Park in Namibia. On 26 November, at about 06.30 hrs, we stopped at the Nuamses waterhole north of the Halali camp. As at other waterholes, it was surrounded by thousands of Red-billed Quelea. Large flocks were perched so densely on the surrounding bushes that the latter were no longer visible. The flocks flew off and returned to their perches continuously. Other flocks then descended onto the banks of the waterhole to drink and bathe As there was no room for the huge numbers of birds, those arriving later flew over those on the banks, some landing in deeper water. A few minutes later the first Queleas left the banks and returned to their perches on the bushes. To our astonishment we noticed that several birds, which had been forced to land in deeper water, could apparently not take off and paddled helplessly in the water. They suddenly disappeared into the depths. This procedure - a large flock dropping into the water and flying off again, with some birds remaining in the water and being dragged down into the depths - was repeated several times. In the course of two hours some 30 birds disappeared in this way.

At first we thought that they had been taken by large fish. Then we saw the heads of the thieves – turtles!

During the days following we saw the turtles sunning themselves and were able to identify them as African Helmeted Turtles *Pelomedusa subrufa*.

Although we spent many hours at various waterholes in the Etosha National Park, and continually saw thousands and tens of thousands of Red-billed Quelea in similar circumstances, we never again witnessed a similar incident. Even on later visits from  $12 - 14\ 2001$  and 20 - 26 November 2005 in Etosha (A Britz, S & D Robel) we were unable to observe a repeat of this occurrence. Moreover, the Nuamses waterhole was almost dried up in 2005 and there was no mass occurrence of the Red-billed Quelea.

The Red-billed Quelea has been the No. 1 "problem" bird in Africa for a long time and is also called "Africa's Bird Pest" (see also Bruggers & Elliott

1989). The appearance of natural enemies should therefore be of great interest and relatively well-known (Fry & Keith 2004). The Lanner Falcon *Falco biarmicus*, which was present at almost all every waterhole and which hunted the weaver birds, was particularly noticeable to us at such locations. Marabou Stork *Leptopilos crumeniferus* was also observed hunting and the Tawny Eagle *Aquila rapax*, also present, can be assumed to be a predator as well.

Thiollay (1989) lists 80 bird species which prey on Red-billed Queleas of all ages (beginning with the eggs). He further mentions numerous mammals and snakes which decimate above all the colonies. In addition, iguanas rob nests and the Nile Crocodile grabs weaver birds while they are drinking (c.f. Attwell 1954, Pitman 1957). Pienaar (1969) reports on numerous predators in the Kruger National Park; but none of these authors mention turtles as a natural enemy. Broadley (1973) comments as follows: The East African serrated mud turtle Pelusios sinuatus is commonly found in rivers in Southeast Africa and larger individuals have been known to take young waterfowl. Pitman (1957, 1961) collated comprehensive material on predators which take birds in or from the water. He includes mammals, fish, crustaceans and molluscs and mentions in addition crocodiles, iguanas, amphibians and turtles. In the case of freshwater turtles he mentions only that the African Helmeted Turtle has taken young of the African Black Duck Anas sparsa and the Yellow-billed Duck Anas undulata in South Africa. In the whole of the literature available to me I was able to find only a single reference to a similar case. Jarvis (1986) reported a large colony of some 300,000 pairs of Red-billed Quelea on the Etosha Pan near Namutoni. Approximately 20 day old birds were preyed on by Tawny Eagles, Sparrowhawks and also Turtles of the Pelomedusidae family. There were however no precise details on place, time and numbers etc. As this report also concerns the Etosha National Park, it would seem that such incidents are not so rare after all (?).

*Pelomedusa subrufa* is widely distributed throughout almost all of Africa south of the Sahara and, with the African Mud Turtle *P. niger*, is the only mud turtle to be found in the savannah and which survives droughts. It has a maximum length of 25 cm and has a primarily animal diet (molluscs, crustaceans, fish and insects) but also eats plants. Here as well I was unable to find any mention of birds as prey in the relevant literature (c.f. Ernst & Barbour 1989), although in the publication "Turtles of the World – CD-ROM (www.eti.uva.nl/Turtles) it states

that when population densities are high larger prey such as small waterfowl are also attacked.

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