



West African Ornithological Society
Société d'Ornithologie de l'Ouest
Africain



**Join the WAOS and support
the future availability of free
pdfs on this website.**

<http://malimbus.free.fr/member.htm>

If this link does not work, please copy it to your browser and try again.

If you want to print this pdf, we suggest you begin on the next page (2) to conserve paper.

**Devenez membre de la
SOOA et soutenez la
disponibilité future des pdfs
gratuits sur ce site.**

<http://malimbus.free.fr/adhesion.htm>

Si ce lien ne fonctionne pas, veuillez le copier pour votre navigateur et réessayer.

Si vous souhaitez imprimer ce pdf, nous vous suggérons de commencer par la page suivante
(2) pour économiser du papier.

Gregarious behaviour of African Swallow-tailed Kite *Chelictinia riocourii* in response to high grasshopper densities near Ouallam, western Niger

On 16 October 1991 JB observed a concentration of Swallow-tailed Kites *Chelictinia riocourii* approximately 15 km west of Ouallam (14°19' N, 2°5' E), 100 km north of Niamey, Niger. The birds first seen formed a loose flock of several dozen birds, with sometimes 100 m or more between one bird and the next.

The kites were apparently hunting over grassland (mostly *Aristida* spp.) with *Guiera senegalensis* shrubs, flying and hovering at about 10-15 m height, and occasionally plunging to the ground. Several birds were seen nibbling in flight on what seemed to be large grasshoppers or locusts. Scanning with binoculars revealed an estimated 800 Swallow-tailed Kites over an area of several square kilometers, mostly hunting, including a group of about 100 which flushed from a tree when a large bird of prey passed by. Their general direction of movement was northward, albeit not purposeful.

On 20 November JB and WCM visited the same area. There were at least several dozen Swallow-tailed Kites present, catching large grasshoppers. No grasshoppers were collected but, based on Mestre (1988) and the reference collection of the Département de Formation en Protection des Végétaux (DFPV), they were tentatively identified as *Ornithacris cavroisi*, a large species of 6-7 cm length. This species was present in high but not unusual numbers (C. Kooijman pers. comm.), locally up to 2 per m².

On 8 December in the same general area, about 15 km west of Ouallam on the road to Tillabéry, CA and A. Kounou observed 20-30 kites in twos or threes clearly moving south-east. Later that same day south-easterly migrating kites crossed the Ouallam-Niamey road, on the spot where they were expected based on the flight direction of the above birds. The shortest distance between those two spots is approximately 30 km. Along the Ouallam-Tillabéry road, about 25 km west of Ouallam, these observers encountered another dense flock of approximately 150 Swallow-tailed Kites, also catching grasshoppers. The grasshoppers were numerous on this spot, where thousands of grasshopper droppings were found under low bushes.

A freshly dead male Swallow-tailed Kite was collected 25 km west of Ouallam. The gonads were not enlarged, and the weight was 110 g, with substantial fat (subcutaneous and around organs). The gizzard contained the remains of a single large *Ornithacris cavroisi*.

In early December 1991 *O. cavroisi* was widespread in SW Niger, where they were commonly sold as tasty roasted snacks. Several vendors said that the grasshoppers had been collected near Dogondoutchi, about 300 km east of Niamey, starting in October. Mestre & Chiffaud (1991) found *O. cavroisi* to be abundant at three out of 23 localities in SW Niger between September 1989 and June 1990. The time of year when populations of this grasshopper peaked coincides with the time of year in which we observed the Swallow-tailed Kites preying on them.

Swallow-tailed Kites in West Africa breed in the Sahel part of their range in the

rains and migrate south to moister parts in the dry season (Thiollay 1977, 1978, Brown *et al.* 1982). The birds observed moving south-east at Ouallam in early December may have originated from unrecorded breeding populations elsewhere in Niger, Mali, or Mauritania, and were perhaps moving on to northern Nigeria (cf. Elgood *et al.* 1973). Earlier visits to the area west of Ouallam by JB, in October 1990, February, August and September 1991, had not revealed any kites.

The gregarious behaviour of Swallow-tailed Kites is a well-known phenomenon (Bannerman 1953), e.g. as a response to grass fires (Brown *et al.* 1982), to swarming termites and ants (Lamarque 1980, 1987), and especially to grasshoppers or locusts (Bouet 1955, Meinertzhagen 1959, Thiollay 1977, 1978, Newby 1979). Following the recent drought years in the Sahel (1981-1984) and the heavy grasshopper and locust control operations between 1986 and 1989 (U.S. Congress 1990), little information has been published on the Swallow-tailed Kite in the Sahel, which appears to have drastically decreased in numbers during the last twenty years (J.-M. Thiollay pers. comm.). The most recent observations of large flocks are those by Lamarque (1980, 1987) reporting on roosts of 150 and 800 Swallow-tailed Kites in January-February near Simbi and Mopti, Mali, respectively and flocks of 50-150 individuals in southeast Mauritania, as well as a night roost of 400 birds in November in the Senegal Delta in Mauritania.

It may be rewarding to investigate further the timing of migration in the Swallow-tailed Kite relative to locust and grasshopper upsurges, and whether the kites significantly reduce the densities of their grasshopper prey (e.g. Elliott 1962, Greathead 1966). In a recent experimental field study it was confirmed that avian predation reduces grasshopper populations at low and moderate densities (Fowler *et al.* 1991).

We are indebted to Baba Sidiki, DFPV, for his identification of the gizzard contents, and to J.-M. Thiollay and R. Wilkinson for their comments on an earlier version of this note.

References

- BANNERMAN, D.A. (1953) *The Birds of West and Equatorial Africa*. Oliver and Boyd, Edinburgh.
- BROWN, L.H., URBAN, E.K. & NEWMAN, K. (1982) *The Birds of Africa*, vol. 1. Academic Press, London.
- BOUET, G. (1955) *Faune de l'Union Française. 16. Oiseaux de l'Afrique Tropicale*. ORSTOM, Paris.
- ELGOOD, J.H., FRY, C.H. & DOWSETT, R.J. (1973) African migrants in Nigeria. *Ibis* 115: 1-45, 375-411.
- ELLIOTT, H.F.I. (1962) Birds as locust predators. *Ibis* 104: 444.
- FOWLER, A.C., KNIGHT, R.L., GEORGE, T.L. & McEWEN, L.C. (1991) Effects of avian predation on grasshopper populations in North Dakota grasslands. *Ecology* 72: 1775-1781.

- GREATHEAD, D.J. (1966) A brief survey of the effects of biotic factors on populations of the Desert Locust. *J. Appl. Ecol.* 3: 239-250.
- LAMARCHE, B. (1980) Liste commentée des oiseaux du Mali (1ère partie: Non-passereaux). *Malimbus* 2: 121-158.
- LAMARCHE, B. (1987) Liste commentée des oiseaux de Mauritanie. *Etud. Sahariennes Ouest-Afr.* 1 (4 & spéc.).
- MEINERTZHAGEN, R. (1959) *Pirates and Predators*. Oliver & Boyd, Edinburgh.
- MESTRE, J. (1988) *Les Acridiens des Formations Herbeuses d'Afrique de l'Ouest*. PRIFAS, Montpellier.
- MESTRE, J. & CHIFFAUD, J. (1991) *Activités du Projet Acrido-météorologie PRIFAS/FAC/AGRHYMET - Rapport de fin de Projet*. Ministère de la Coopération, Paris and CIRAD-PRIFAS, Montpellier.
- NEWBY, J. (1979) The birds of the Ouadi Rimé - Ouadi Achim Faunal Reserve, a contribution to the study of the Chadian avifauna. *Malimbus* 1: 90-109.
- THIOLLAY, J.-M. (1977) Distribution saisonnière des rapaces diurnes en Afrique Occidentale. *Oiseau Rev. fr. Orn.* 47: 253-294.
- THIOLLAY, J.-M. (1978) Les migrations de rapaces en Afrique Occidentale: adaptations écologiques aux fluctuations saisonnières de production des écosystèmes. *Terre Vie* 32: 89-134.
- U.S. CONGRESS, OFFICE OF TECHNOLOGY ASSESSMENT (1990) *A Plague of Locusts - Special Report*. OTA-F-450, U.S. Government Printing Office, Washington, DC.

Received 23 January 1992

Revised 6 July 1992

Wim C. Mullié¹, Joost Brouwer² & Christian Albert³

¹DFPV, Centre Agrhyet/CILSS, BP 12625, Niamey, Niger

²ICRISAT Centre Sahélien, BP 12404, Niamey, Niger

³BP 139, Niamey, Niger

European Crag Martin *Ptyonoprogne rupestris* in The Gambia

On 18 November 1990, a European Crag Martin *Ptyonoprogne rupestris* was observed flying around the cliffs at Kahi Badi Forest Park (13°43'N, 15°03'W) east of Kaur, The Gambia. The bird was not seen again on subsequent visits in December, nor in March the following year, nor at any other known cliff site, despite careful observation. Gore (1990) mentions an unconfirmed record of a bird identified as an African Rock Martin *Ptyonoprogne fuligula* from "Kaur" January 1972, presumably the same location, as there are no cliffs in Kaur itself and Kahi Badi is one of the few locations with cliffs in The Gambia. Morel & Morel (1990) discuss the occurrence of the Crag Martin and of the African Rock Martin in Senegambia. On the basis of distribution in Senegal, they