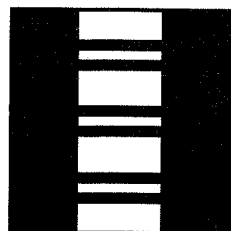


# A survey of the Mammals of the Kounounkan Massif, South-Western Guinea, West Africa



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Manuscript received 8 August 1995  
revised 29 October 1995  
accepted 8 December 1995

Section editor: D. Kock

Barnett, A. A., Prangley, M., Hayman, P. V., Djiramba Diawara, D. & Koman, J. 1996. A survey of the Mammals of the Kounounkan Massif, South-Western Guinea, West Africa. *J. Afr. Zool.* 110: 235-240.

Authors report on a short survey of the Kounounkan Massif, some 90 km east of Conakry. Thirty three mammal species were recorded. Presence of some species, failure to record others and range extensions are discussed. Despite the short duration of the survey, the species of mammal confirmed to be at Kounounkan are almost exactly those which would be predicted on biogeographic grounds alone, indicating the site is little disturbed and that none of the larger and non-volant mammals (at least) have been locally extirpated by hunting or habitat destruction.

*Un relevé des mammifères du massif de Kounounkan, sud-ouest de la Guinée, Afrique occidentale.* — Les auteurs présentent un bref relevé des mammifères du massif de Kounounkan, à quelque 90 km à l'est de Conakry. Trente-trois espèces ont été recensées. La présence de certaines espèces, l'insuccès à en capturer d'autres et des extensions de leur répartition sont discutés. En dépit de la brièveté du relevé, les espèces de mammifères répertoriées dans le massif de Kounounkan sont celles-là même dont la présence serait prédite sur une base biogéographique, indiquant par là que le site est peu perturbé et qu'aucun des grands mammifères non volants (au moins) n'a disparu localement par suite de la chasse ou de la destruction de l'habitat.

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## INTRODUCTION

Compared to other countries in West Africa, the mammals of Guinea have been little studied. According to Groombridge (1992), Guinea has 190 species of mammal, yet between 1968 and 1994 the Zoological Record listed just 26 papers on extant, native, wild-living, non-volant mammals are listed for that country. This contrasts with 35 for Sierra Leone (147 species), 96 for Côte-d'Ivoire (230 species), 121 for Nigeria (274 species) and 125 for Gabon (190 species).

With few exceptions (*e. g.* Bournonville, 1967; Roche, 1962, 1971), the majority of mammalogical studies in Guinea have been conducted in eastern Guinea, notably in the region around Mount Nimba (*e. g.* Heim de Balsac, 1954, 1956, 1958; Heim de Balsac & Lamotte, 1958; Misonne & Verschuren, 1976; Verschuren & Meester, 1977; Lamotte, 1983; Gautun *et al.*, 1986; Bourque & Wilson, 1990). Given the paucity of information, we believe that even preliminary contributions to the mammalogy of Guinea are of value.

Here we report on a short survey of the Kounounkan Massif, a steep-sided 5025 ha sandstone isolate, some 90 km east of Conakry, Forecariah Prefecture, southwestern Guinea (see maps in Prangley, Barnett & Diallo, 1994). The area is within the zone defined by White (1983) as a "mosaic of Guineo-Congolian woodland and secondary grassland". Botanical lists in Koman (1993), place Kounounkan in the "drier peripheral semi-evergreen Guineo-Congolian rain forest" phytocenosis of White (1983). The current survey found the following habitat types: primary seasonal dry forest, old secondary forest and farmbush in various stages of regeneration. Natural savanna was found on the ridgetops of the plateaux and there are also some areas of marsh (see Koman, 1993). The climate is monsoonal, with a

pronounced dry season from November to March.

Kounounkan's ecology has been little studied. Government archives in Conakry record just one previous biological study there, a short visit in 1954 by the French botanist Dr R. Schnell. de Bournonville (1967) records the locality (as 'Kamalahay'), but did not visit it. We have been unable to find any records of previous mammalian studies in the area. Barnett *et al.* (1994) describe the geography and conservation history of the site. Prangley *et al.* (1994) have reported on the area's lepidoptera. Haymen *et al.* (in press) discuss the area's birds.

## METHODS

Fieldwork was undertaken in November and December 1992 (dry season). Three localities were studied by AB, MP and PVH while JK walked three study transects. Additional data was obtained by DD who, during this period, conducted interviews in Susu (the local language) with some 30 hunters in six villages around the massif. Small mammals were trapped for using metal snap traps and a paste of banana, peanut butter and fish as bait. Larger mammals were recorded by visual contacts, field signs and spoor. Care was taken to survey all habitat types at each study site.

Identifications were made using Rosevear (1969, 1974), Meester & Setzer (1974-1977), Haltenorth & Diller (1980), Nowak (1991) and notes made previously on specimens in the collections of the Natural History Museum (NHM), London. Taxonomy broadly follows Corbet & Hill (1991). Bats were not studied due to time constraints.

## RESULTS AND DISCUSSION

Thirty three mammal species were recorded (Table 1), 29 directly by us and

Table 1. — Mammals recorded at Kounounkan. (taxonomy and order broadly follows Corbet &amp; Hill, 1991)

Common names	Scientific names	Sites
Primates		
Bushbaby	<i>Galago senegalensis</i> E. Geoffroy St.-Hilaire, 1796) or <i>G. demidoffi</i> (G. Fischer, 1808)	Bh 2 3
Sooty mangabey	<i>Cercocebus torquatus atys</i> (Audebert, 1797)	A 1 2
Olive baboon	<i>Papio anubis</i> (Lesson, 1827)	A 3 3
Savanna monkey	<i>Cercopithecus aethiops</i> (Linnaeus, 1758)	A 1 2 3 4
Campbells mona monkey	<i>C. c. campbelli</i> Waterhouse, 1838	A 1 2 3 4
Western diana monkey	<i>C. d. diana</i> (Linnaeus, 1758)	Bh 1 1
Lesser white-nosed guenon	<i>C. p. taurista buettikoferi</i> Jentink, 1886	A 1 2
Western black-and-white colobus	<i>Colobus p. polykomos</i> (Zimmermann, 1780)	A 1 2
Western chimpanzee	<i>Pan troglodytes verus</i> Schwarz, 1934	Bh 1 2
Carnivores		
Spotted-necked otter	<i>Lutra maculicollis</i> Lichtenstein, 1835	Bs 1
African clawless otter	<i>Aonyx capensis</i> (Schinz, 1821)	Bs 1
African linsang	<i>Poiana richardsonii</i> (Thomson, 1842)	C 1
Genet	<i>Genetta</i> sp.	Bs 1
African civet	<i>Viverra civetta</i> (Schreber, 1776)	A 1
Slender mongoose	<i>Galerella sanguinea</i> (Rüppell, 1835)	A 1
Marsh mongoose	<i>Atilax paludinosus</i> (G. Cuvier, 1829)	A 1
Cusimanse	<i>Crossarchus obscurus</i> F. Cuvier, 1825	A 1
Even-toed ungulates		
Giant forest hog	<i>Hylochoerus meinertzhageni</i> Thomas, 1904	Bs 1
or Bush pig	<i>Potamochoerus porcus</i> (Linnaeus, 1758)	C 1
Water chevrotian	<i>Hyemoschus aquaticus</i> (Ogilby, 1841)	A 1
Bongo	<i>Tragelaphus eurycerus</i> (Ogilby, 1837)	Bs 1 2 3
Duiker sp.	<i>Cephalophus</i> sp.	C 1
Black duiker	<i>Cephalophus niger</i> Gray, 1846	C 1
Royal Antelope	<i>Neotragus pygmaeus</i> (Linnaeus, 1758)	C 1
Rodents		
Giant forest squirrel	<i>Protoxerus stangeri</i> (Waterhouse, 1842)	A 1 2
Cuvier's tree squirrel	<i>Funisciurus pyrropus</i> (F. Cuvier, 1833)	A 1
Gambian sun squirrel	<i>Helosciurus gambianus</i> (Ogilby, 1835)	A 1
Red-legged sun squirrel	<i>H. rufobrachium</i> (Waterhouse, 1842)	A 1
Geoffroy's ground squirrel	<i>Xerus erythropus</i> (E. Geoffroy, 1803)	A 3
Emin's giant rat	<i>Cricetomys emini</i> Wroughton, 1910	A 1
Back-striped mouse	<i>Hybomys planifrons</i> (Miller, 1900)	T 1
Edward's long-footed marsh rat	<i>Malacomys edwardsi</i> Rochebrune, 1885	T 1
Tuilberg's soft-furred rat	<i>Prormys tuilbergi</i> (Thomas, 1894)	T 1 2 3
Multimammate rat	<i>Mastomys (natalensis)</i> (Smith, 1834)	T 3

A = seen. B = other record type (h=heard, s=spoor). C = reported by villagers, not recorded during visit. T = trapped  
 1 = in primary forest. 2 = in secondary forest. 3 = in farmbush. 4 = in or near human habitation

four more by information from villagers. Trap success was low (1.93%). This may be attributable to a dry season trough in population density (see Delany, 1986), though bait removal by ants was also high, affecting 41.4% of traps. Trapping records matched previously recorded habitat preferences (e. g. Happold, 1987). For example, *Malacomys edwardsi* was caught on moist soil near a river, and *Hybomys planifrons* was recorded in dense vegetation dominated by *Maranthachloa* sp. (Marantaceae), described by Carleton & Robbins (1985) as the characteristic habitat for this species. The normally common *Mastomys (natalensis)* was rarely trapped. This may reflect Kounounkan's isolation from human habitation (see Jeffrey, 1977).

Crabs are a major item in the diet of the African clawless otter *Aonyx capensis*, while the spotted-necked otter *Lutra maculicollis* is piscivorous (see Kruuk & Goudswaard, 1990; Purvis, Kruuk & Nel, 1994). Following Bourque & Wilson (1990), the presence of *A. capensis* was directly determined from the partially eaten remains of freshwater crabs and from spraint (full of crab fragments) found on mid-stream rocks.

The presence of *L. maculicollis* was also confirmed indirectly; by characteristic spoor in streamside sediment and on moist sand. A set of clear fore-paw prints in wet sand was found alongside a small shallow stream, the imprint of webs and claws clearly visible. The prints were photographed and subsequently checked with specimens in the NHM, London.

Our failure to record some species of small mammal (e. g. *Crocidura*, *Lophuromys*, *Hylomyscus*) can be attributed to the small sampling time, but the apparent absence of the tree hyrax *Dendrohyrax dorsalis* requires further clarification. This animal has a very characteristic call which is well known to one of us

(PVH) from previous work in Sierra Leone's Gola Forest, where it is common (Allport *et al.*, 1989).

A number of records from Kounounkan are range extensions. The most notable are:

*Diana monkey*, *Cercopithecus d. diana* - From data in Lee *et al.* (1988): this is a first record for south-western Guinea (see Prangley *et al.*, 1994 for further discussion).

*Spotted-necked otter*, *Lutra maculicollis*. - Distribution maps in Foster-Turley *et al.* (1990) and Skinner & Smithers (1990) indicate this is a first record for *L. maculicollis* in south-western Guinea.

*African linsang*, *Poiana richardsoni*. - If this record is correct it would be a considerable extension of known range (see Schreiber *et al.*, 1989; Taylor, 1989). Though its characteristic markings make confusion unlikely, this record should be regarded as provisional for the moment.

*Water chevrotian*, *Hyemoschus aquaticus*. - According to Frank Ansell (pers. comm.), the Kounounkan record is a western range extension for this species (see also Dekeyser, 1955).

*Back-striped mouse*, *Hybomys planifrons*. - Distribution maps in Carleton & Robbins (1985) show the Kounounkan record to be a new one for south-western Guinea and a range extension for the species.

Kounounkan was not visited by de Bournonville (1967) during his survey of chimpanzees in Guinea. Accordingly, confirmation of chimpanzee there is a new site record for Guinea. Given the status of chimpanzee populations in neighbouring countries (e. g. Hoppe-Dominik, 1991), such records can only be welcomed.

Despite the short duration of the survey, the species of mammal confirmed to be at Kounounkan are almost exactly those which would be predicted on biogeographic grounds alone (Martin, 1991; Nowak, 1991), indicating the site is little disturbed and that none of the larger and non-volant mammals (at least) have been locally extirpated by hunting or habitat destruction. The record for the bongo *Tragelaphus eurycerus* is of particular interest as the species is considered rare in Guinea by the IUCN/SSC Antelope Specialist Group (Sournia *et al.*, 1990). The primate fauna is diverse and monkeys were frequently encountered at Kounounkan. This is attributed to the fact that the region's Susu villagers are Muslims and hence do not hunt monkeys (see Lowes, 1970; Prangley *et al.*, 1993; Barnett *et al.*, 1994 for discussion). However, Thayer (1983) reports the Muslim Susu vigorously hunt other forms of wildlife, while Davies & Richards (1991) found that Muslim Mende will hunt monkeys for sale to non-Muslims. The inaccessibility of the Massif may therefore be the key to the current high mammalian diversity at Kounounkan.

#### ACKNOWLEDGEMENTS

We are most grateful to (the late) Mamadou Oury Bah, Director, Direction National du Foret et de la Chasse and other DNFC staff, Michael Wilson (World Bank) and Mr. and Mrs. Mammadou Bella Sase Balde of Moussaya. In UK, we thank Amanda Hillier and Roger Wilson (Fauna and Flora International; formerly Fauna and Flora Preservation Society), Roger Hammond (Living Earth), the staff of the mammal section at the Natural History Museum (London), and the staff of the library of the Zoological Society of London. F. Ansell, J.C. Gautun and A. Spalton provided helpful comments on previous versions. Doug Brandon-Jones provided technical assistance. Chris

Brandon-Jones kindly reformatted the final version of this paper and corrected the English. This study was carried out on behalf of Fauna and Flora International, who funded the fieldwork.

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