TAXONOMIC AND DISTRIBUTIONAL NOTES ON BATS FROM KENYA

DUANE A. SCHLITTER
Curator, Section of Mammals

ISSA R. AGGUNDEY

MAZIN B. QUMSIYEH
Rea Postdoctoral Fellow, Section of Mammals

KIMBERLY NELSON

RODNEY L. HONEYCUTT

ABSTRACT

Taxonomic and distributional comments are given for six species in three families of bats from Kenya. Two species (Hipposideros camerunensis and Tadarida russata) are reported from Kenya for the first time.

INTRODUCTION

During field work on the systematics of small mammals in Kenya from September to November 1985, a number of bats were collected

1 Curator of Mammals, National Museums of Kenya, P.O. Box 40658, Nairobi, Kenya.
2 Current address: Department of Biological Sciences, Texas Tech University, Lubbock, TX 79409.
3 Address: Museum of Comparative Zoology, Harvard University, Cambridge, MA 02138. Submitted 5 February 1986.
in various parts of Kenya. Some of these specimens add substantially to the knowledge of the distribution of bats in Kenya and East Africa while others were of taxonomic interest. This paper summarizes these data on six species of bats in three families.

MATERIALS AND METHODS

All specimens reported herein were captured with mist nets set in the normal manner. Cranial and forearm measurements were taken by means of dial calipers and are given in millimeters. All specimens are deposited in the Carnegie Museum of Natural History, Pittsburgh (CM); Museum of Comparative Zoology, Harvard University, Cambridge (MCZ); and National Museums of Kenya, Nairobi (NMK). Coordinates for localities are listed only for the first reference to the locality.

ACCOUNT OF SPECIES

Family Hipposideridae

_Hipposideros camerunensis_ Eisentraut, 1956

_Hipposideros camerunensis_ Eisentraut, 1956. Zool. Jahrb. Abt. Syst. Oekol. Geogr. Tiere, 84:526. Near Buea, Cameroun.

*Records* (1).—_Kenya_: Western Prov., Kakamega Dist., Kakamega Forest Station, 3-½ km E Kakamega (0°14'N, 34°52'E) (1 CM).

*Measurements. —* Selected measurements of an adult female, length of forearm, 74.3; condylocanine length, 24.9; zygomatic breadth, 15.7; alveolar length of maxillary toothrow, 9.3; and greatest crown breadth of upper molar toothrows, 11.1.

*Remarks.* —_Hipposideros camerunensis_ is a rare, large forest species of _Hipposideros_ resembling closely the more common _H. cyclops_. It has been reported from the type locality, Buea, Cameroun, and elsewhere only from Shabunda, eastern Zaire (2°42'S, 21°20'E) (Hill, 1963: 81). On 5 November a single adult female was taken in the bottom shelf of a mist net placed along a cleared trail in the Intermediate Evergreen Forest near the Forest Guest House at the Kakamega Forest Station. This specimen from the Kakamega Forest extends the range of this species about 900 kilometers to the northeast and is the first record of occurrence for Kenya. For a description of the capture area, see Zimmerman (1972).

In size, the Kenyan female agrees well with a series of Cameroun specimens in Carnegie Museum and with the measurements given by Hill (1963:80).

_Hipposideros cyclops_ (Temminck, 1853)

_Phylorhina cyclops_ Temminck, 1853. Esquisses Zool. sur la Cote de Guine, p. 75. Boutry River, Ghana.

*Records* (2).—_Kenya_: Coastal Prov. Kwale Dist., Shimba Hills Nature Reserve, Makandara Picnic Site, 7 km S, 8 km W Kwale (4°15'S, 39°23'E) (2 CM).
Measurements.—Selected measurements of a male and female, respectively, length of forearm, 66.8, 63.7; condylocanine length, 27.1, 27.2; zygomatic breadth, 14.8, 15.2; alveolar length of maxillary tooth-row, 8.4, 8.7; and greatest crown breadth of upper molar tooth-rows, 10.4, 10.6.

Remarks.—*Hipposideros cyclops* is known currently from two localities in western Kenya. Hayman (1935:48) reported this species from the Yala River and later Harrison (1961:290) listed Kaimosi. The species is not known from Tanzania.

On 14 October, two adult individuals of *H. cyclops* were captured in a mist net set in the cleared Makandara Picnic Site in the Shimba Hills Nature Reserve. The net was set parallel and adjacent to the forest edge. These two specimens extend the range of this species to extreme southeastern Kenya. The geographic range of this species probably reaches this region of Kenya along a corridor of forest blocks extending from southwestern Tanzania to northeastern Kenya. This species should be captured in appropriate forests in this Tanzanian corridor after careful and concentrated mist netting.

Family Vespertilionidae

*Scotophilus nux* Thomas, 1904

*Scotophilus nux* Thomas, 1904. Ann. Mag. Nat. Hist., (7) 4:355. Gambage, Ghana.

Records (4).—Kenya: Western Prov., Kakamega Dist., Kakamega Forest Station, 3½ km S, 12 km E Kakamega (2 CM, 1 MCZ, 1 NMK).

Measurements.—Selected external measurements of four females, length of forearm, 57.8, 57.6, 54.5, 55.3.

Remarks.—*Scotophilus nux* has been reported in Kenya only from 8 km SE Kakamega (Aggundey and Schlitter, 1984:138). The eight specimens from Kenya referred to by Robbins (1983:23) are from this locality. Both localities refer to the Kakamega Forest Station. Four additional specimens of this dark-brown colored forest species of *Scotophilus* were netted in the forest adjacent to the station and in the cleared areas around the station complex on 5 and 7 November. These specimens further verify the occurrence of this species in the forests of western Kenya. Specimens of *Scotophilus dinganii* were not taken together with *S. nux* at this locality, but the former species was taken in more heavily disturbed areas near the station complex and seems to be the most common species of *Scotophilus* taken in Kenya.

*Kerivoula argentata argentata* Tomes, 1861

*Kerivoula argentata* Tomes, 1861. Proc. Zool. Soc. London, 1861:32. Otjoro, Namibia.

Records (1).—Kenya: Coastal Prov., Kwale Dist., Shimba Hills Nature Reserve, 5 km S, 1 km W Kwale (4°13'S, 39°27'E) (1 CM).
Measurements.—Selected measurements of an adult male, length of forearm, 35.9; condylobasal length, 13.9; and alveolar length of maxillary toothrow, 5.9.

Remarks.—*Kerivoula argentata* occurs primarily in southern Africa and ranges northward as far as Kenya. Specimens of *Kerivoula* are seldom captured and there is a paucity of records for this species in eastern Africa. It has been reported from Liwale, in southern Tanzania (Harrison, 1958:95), an unspecified locality in Uganda (Kingdon, 1974:304), and from Kibwezi, southeastern Kenya (Aggundey and Schlitter, 1984:139). A single adult male was taken on 12 October in a mist net set under the trees in the central clearing surrounding the bandas at the overnight facilities in Shimba Hills Nature Reserve. This specimen constitutes the second locality record of the species for Kenya and only the fourth for this region encompassing the northern part of the range of the species.

The Shimba Hills specimen exhibits the normal white-tipped orange-rufous dorsal coloration and the somewhat lighter colored ventral fur. Mensurally it fits within the size range of southern African examples of the species.

**Family Molossidae**

*Tadarida (Chaerephon) russata* (J. Allen, 1917)

*Chaerephon russata* J. Allen, 1917. Bull. Am. Mus. Nat. Hist., 37:458. Medje, Zaire.

Records (3).—Kenya: Rift Valley Prov., Naivasha Dist., Hell's Gate Canyon, 20 km S, 14 km W Naivasha (0°54'S, 36°19'E) (1 CM, 1 MCZ, 1 NMK).

Measurements.—Selected measurements of two males and one female, respectively, length of forearm, 45.4, 46.2, 46.2; condylobasal length, 18.0, 18.0, 17.1; zygomatic breadth, 11.2, 11.9, 11.2; alveolar length of maxillary toothrow, 7.2, 7.1, 6.7; and greatest crown breadth of upper molar toothrows, 9.0, 8.7, 8.3.

Remarks.—The taxonomic and distributional status of *Tadarida russata* was reviewed by Peterson (1971) and Fenton and Peterson (1972). This species is presently known from Ghana, Cameroun, and the type locality in northeastern Zaire (Fenton and Peterson, 1972:20). On 30 September, two adult males were captured in a mist net set across the floor of the northern end of Hell’s Gate Canyon. On 3 October a single adult female was taken in a net set in the same area. These three specimens comprise the first record of the species for Kenya and extend the range of the species more than 1000 kilometers to the southeast.

The Kenyan specimens of this species agree in color of pelage with three Cameroun examples in Carnegie Museum. However, mensurally they appear to be appreciably larger than these examples and the mea-
surements given in Fenton and Peterson (1972:21, 22). When more specimens from throughout the geographic range of this species become available, the Kenyan population may prove to be significantly larger and worthy of subspecific recognition.

**Tadarida (Tadarida) fulminans** (Thomas, 1903)

_Nyctinomus fulminans_ Thomas, 1903. Ann. Mag. Nat. Hist., (7)12:501.

*Fianarantsoa, eastern Betsileo, Madagascar.*

**Records** (1).—*Kenya*: Rift Valley Prov., Nakuru Dist., Njoro River, 3 km S, 3 km W Nakuru (0°19'S, 36°03'E) (1 CM).

**Measurements.**—Selected measurements of an adult male, length of forearm, 56.7; condylobasal length, 21.2; zygomatic breadth, 13.4; alveolar length of maxillary toothrow, 8.3; and greatest breadth of upper molar toothrow, 9.3.

**Remarks.**—The first record of occurrence for _Tadarida fulminans_ in Kenya was a specimen from Nairobi reported by Harrison (1960:74). This species occurs primarily in southern Africa (Smithers, 1983) and reaches the northern extent of its range in Kenya. On 8 October a single adult male was captured in the gorge of the Njoro River southwest of Nakuru. The specimen was taken in a mist net set across shallow water and among trees on the steep bank of the watercourse.

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