

**PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE  
CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD  
ANIMALS**

**A. PROPOSAL:** Inclusion of African population of Large-eared Free-tailed Bat/Giant Mastiff Bat *Otomops martiensseni* on Appendix II.

**B. PROPONENT:** Government of Kenya.<sup>1</sup>

**C. SUPPORTING STATEMENT:**

**1. Taxon**

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|---------------------------------------|---|
| <b>1.1. Class:</b>                    | Mammalia  |
| <b>1.2. Order:</b>                    | Chiroptera  |
| <b>1.3. Family:</b>                   | Molossidae  |
| <b>1.4. Genus/species/subspecies:</b> | <i>Otomops martiensseni</i> (Matschie, 1897)  |
| <b>1.5. Common name :</b>             | English: Large-eared Free-tailed Bat, giant mastiff bat<br>French: Grand molosse à grandes oreilles |

**2. Biological data**

**2.1. Distribution**

Eastern Africa to southern Africa. Widely distributed in eastern Africa from Ethiopia to South Africa (Long, 1995), one record Yemen (Al-Jumaily, 1999), one from Ghana (Grubb et al., 1998) and recent records from Comoe National Park, Ivory Coast (J. Fahr, pers. comm.). Widespread in western Madagascar (Peterson *et al.* 1995). The Madagascan population of *O. martiensseni* is regarded by some authorities as a separate species, *O. madagascariensis*, and it has been suggested that the southern African populations should be regarded as a separate species, *O. icarus*, or subspecies (Peterson et al., 1995), Koopman (1993) considered this all as a single species. The forthcoming Mammals of Africa (Happold *et al.*, in prep.) treats *madagascariensis* as a separate species and Simmons (in press) has provisionally separated it as a separate species. However, Peterson *et al.* (1995) considered *madagascariensis* most closely related to southern African 'icarus' and preliminary studies of DNA suggest that the populations of Africa are not separable (P. J. Taylor, pers. comm.). A final decision may depend on further DNA studies currently being carried out.

**2.2. Population**

Sparsely recorded and with few colony sites known. Generally the species is colonial with larger colonies in underground sites. In South Africa (Durban area of KwaZulu-Natal) forms small colonies (to c.30 individuals) in houses (c.24 such colony sites known) (Richardson & Taylor, 1995; Taylor et al., 1999; Taylor, 2000; Fenton et al., 2002). A small colony of at least 10 individuals recorded from a tree hole in Tanzania (H.Baagoe, pers, comm.), and also recorded from a tree in Democratic Republic of the Congo by Verschuren (1957). In the case of the Tanzanian record, one or two of the bats were resting outside the tree hole.

Other records are from caves and lava tubes, where colonies may number several hundred; two lava tube localities (Mt Suswa in the Rift Valley and Ithundu in the Chyulu Hills, Kenya) recorded with

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<sup>1</sup> Proposals for the inclusion of *O. martiensseni* on Appendix II have been submitted independently by the Governments of the Democratic Republic of the Congo and Kenya. Contacted by the Secretariat, proponent governments agreed to consider the proposal of amendment as submitted jointly by them. Original submissions are transmitted as separate documents to the other Parties.

more than 1000 (Mutere, 1973). These colonies must have been very large since Mutere (op.cit.) collected close to 5000 individuals in a 23 month period. In a description of the Mount Suswa caves, Glover et al. (1964) mentions large numbers of *Otomops* and *Miniopterus* sp. These major Kenyan colonies now have fewer individuals. A recent survey found none in their known distribution places in Kenya such as Suswa (southern Rift Valley) and only c. 17 in Ithundu (B. Agwanda, pers. comm.). Hutson & Wilson (1992) noted groups of one, 42 and c.300 in lava tubes in Rwanda. Al-Jumaily (1999) found 1500 in one cave in Yemen, with the bats in several groups of about 200. Most of the distribution records are based on isolated individuals found or trapped during surveys.

### 2.3. Habitat

Aerial insectivore, and feeds mainly on moths and other small Orthopterans and Hemipterans (3% by volume) in a sample from Ethiopia (Rydell & Yalden, 1997). A sample from Rwanda (Hutson, pers. obs.) also comprised almost exclusively of moths, grasshoppers (Acrididae) and beetles (Coleoptera). This is a large bat species with the narrowest wings of any bat for fast direct flight in open areas. Forages over semi-arid areas to montane humid forest up to 2000 asl. Probably a long-range forager over a wide variety of habitats, and is likely to travel great distances even during night foraging. Generally roosts in caves, but in southern Africa, it is mostly recorded from houses. In other areas, it has been seen roosting in trees. Individuals from colonies in southern Africa frequently move between two or three nearby roost sites (Fenton et al., 2002). Further accounts on the species can be found in Long (1995) and Hutson *et al.* (2001).

### 2.4. Migration

There is no direct evidence of migration in this species, but marked seasonal absence from some areas and from some major colony sites during the dry season has prompted the suggestion of migration (e.g. Mutere, 1973), and the species should certainly be capable of extended migration. The common Kenyan sites are close to the Tanzanian border. In the smaller urban colonies of southern Africa, there are harem structures of single adult male and a number of females (Fenton et al., 2002). No distinct seasonal absence has been recorded in South Africa.

## 3. **Threat data**

### 3.1. Direct threats to the populations

Threats poorly known, but major colonies in caves and lava tubes may have been lost through disturbance, including guano digging and associated changes to microclimate. Other general conservation problems associated with caves may apply such as blocking of entrances recreational caving and tourism and mineral extraction in some areas. Direct Killing has also been reported within the species distribution range.

### 3.2. Habitat destruction

Ability for long-range foraging may mean that only gross landscape changes would affect foraging habitat and food availability.

### 3.3. Indirect threats

### 3.4. Threats connected especially with migrations

Seasonal movement involves relocation of populations to unknown sites.

### 3.5. National and international utilization

Guano exploitation for fertilizer in Kenya may have caused changes in microclimate within cave roost sites and decline or loss of bat populations.

#### 4. Protection needs and status

##### 4.1. National protection status

No Special protection status in Kenya, but the species like all other wildlife is protected under the Wildlife Act. The site of the former large colony at Mt Suswa in Kenya is under some legal protection (Hutson *et al.*, 2001). In South Africa, the species is listed for special protection in Kwa Zulu-Natal. Some colonies in Rwanda are within the protected areas.

##### 4.2. International protection status

Not listed in any international conservation statute or treaty. The IUCN list this species as Near-threatened (IUCN 2004).

##### 4.3. Additional protection needs

Key roost sites need protection in some areas or control of human activities therein. There should be a reassessment of all known roosts to ascertain numbers and status of colonies, so that key sites can be identified within its distribution range. The distinctive and audible echolocation calls (has a social function) can be used to assess distribution and foraging needs in order to improve conservation status. But there is the possibility of confusion with one or two other molossidids within the distribution range. Further research and inventories to identify conservation requirements, including those related migrations should be prioritized.

#### 5. Range states<sup>2</sup>

Angola, Central African Republic, CÔTE D'IVOIRE, DEMOCRATIC REPUBLIC OF CONGO, DJIBOUTI, Ethiopia, GHANA, KENYA, Madagascar, Malawi, RWANDA, SOUTH AFRICA, UNITED REPUBLIC OF TANZANIA, UGANDA, Yemen, Zambia, Zimbabwe.

#### 6. Comments from range states

##### Justification for listing in Appendix II – from Kenya

Kenya is a range state for the species. Like all other wildlife species, it is protected under the Kenyan Wildlife laws, but no special conservation status exists for this species at present. Expansion of agriculture involving excessive use of agro-chemicals and other general disturbances to its habitats within its range is common in Kenya, and among other range states of Africa. In eastern Africa, the species is listed as regionally endangered. The listing of the species in Appendix II of CMS will improve its conservation and attract the necessary research and monitoring interests and development of its conservation action plans among the range states.

The mapping of the distribution and more inventories on the distribution of this species is considered a priority by Kenya. Already efforts are being made in Kenya to map the distribution of the species. But given its distribution in Africa, collaboration will be important in these efforts. This collaboration will be made easier among the range states if this species listed.

The listing will enhance interest in the species' conservation including the ecological and socio-economic values in Kenya and East Africa. General education and awareness about the bats will be enhanced as well.

Kenya fully supports the inclusion of this species in Appendix II and urges other range states to consider supporting the listing.

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<sup>2</sup> CMS Parties in capital.

## 7 Additional remarks

## 8. References

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