Chaerephon ansorgei – Ansorge's Free-tailed Bat


Erna Balona

Regional Red List status (2016)	**Least Concern**
National Red List status (2004)	Least Concern
Reasons for change	No change
Global Red List status (2016)	Least Concern
TOPS listing (NEMBA) (2007)	None
CITES listing	None
Endemic	Edge of range

At a total body length of about 102 mm, Ansorge's Free-tailed Bats are small, rapid flyers and high aerial feeders (Skinner & Chimimba 2005; Monadjem et al. 2010).

Taxonomy

Chaerephon ansorgei (Thomas 1913)

ANIMALIA - CHORDATA - MAMMALIA - CHIROPTERA - MOLOSSIDAE - *Chaerephon - ansorgei*

Synonyms: *Nyctinomus ansorgei, Nyctinomus rhodesiae*

Common names: Ansorge's Free-tailed Bat, Ansorge's Wrinkle-lipped Bat (English), Ansorge se Losstertvlermuis, Ansorge-losstertvlermuis (Afrikaans)

Taxonomic status: Species

Taxonomic notes: This species was previously listed under *Tadarida* (Hayman & Hill 1971; Largen et al. 1974; Corbet & Hill 1980), and is physically very similar to *Tadarida aegyptiaca*, especially in pelage colour, although somewhat smaller in size. However, Koopman (1975) and Freeman (1981) described the relationship between this species and *Chaerephon bivitatta* and *C. bemmeleni*, and resultantly included this species under the genus *Chaerephon,* which was later supported by Meester et al. (1986) and Koopman (1993). No subspecies have been identified.

Assessment Rationale

The species is widely but sparsely distributed across the northeastern regions of the assessment region and occurs predominantly in protected areas. The estimated extent of occurrence is 106,515 km^2. It occurs in hard to reach places and is difficult to sample but the population is suspected to be stable. There are no known major threats to the species, and it is thus listed as Least Concern.

Regional population effects: This species has been commonly recorded in Zimbabwe and extensive genetic exchange between individuals occurring within and outside of the assessment region is suspected.

Distribution

Chaerephon ansorgei occurs across much of sub-Saharan Africa through to the Kruger National Park and northern KwaZulu-Natal (ACR 2015), with the core of its range being Zimbabwe (Monadjem et al. 2010). It has not been recorded from Botswana. A possible geographically-isolated population is restricted to western Angola (Monadjem et al. 2010). A habitat model suggests that suitable conditions occur in southern Mozambique (Monadjem et al. 2010). Within the assessment region it is found in the Limpopo, Mpumalanga, and KwaZulu-Natal provinces, occurring primarily in protected areas (Figure 1).

Population

This species is suspected to be uncommon as it is difficult to capture, and most records appear to be isolated (Skinner & Chimimba 2005). However, colonies outside of the assessment region have been recorded to contain hundreds of individuals (Mickleburgh et al. 2008). This species is well represented in museums from within the core of its range in Zimbabwe, where more than 250 individuals were examined in Monadjem et al. (2010).

Current population trend: Stable

Continuing decline in mature individuals: Unknown

Number of mature individuals in population: Unknown

Number of mature individuals in largest subpopulation: Unknown

Number of subpopulations: Unknown

Severely fragmented: No

Habitats and Ecology

This species inhabits dry woodland savannah habitats, usually near to rugged hills and mountains with rocky cliffs (Monadjem et al. 2010). Natural roost sites include narrow cracks in rocks, especially on cliff faces (Cotterill &

Recommended citation: Monadjem A, Taylor PJ, Cohen L, Jacobs D, MacEwan K, Richards LR, Schoeman C, Sethusa T. 2016. A conservation assessment of *Chaerephon ansorgei*. In Child MF, Roxburgh L, Do Linh San E, Raimondo D, Davies-Mostert HT, editors. The Red List of Mammals of South Africa, Swaziland and Lesotho. South African National Biodiversity Institute and Endangered Wildlife Trust, South Africa.

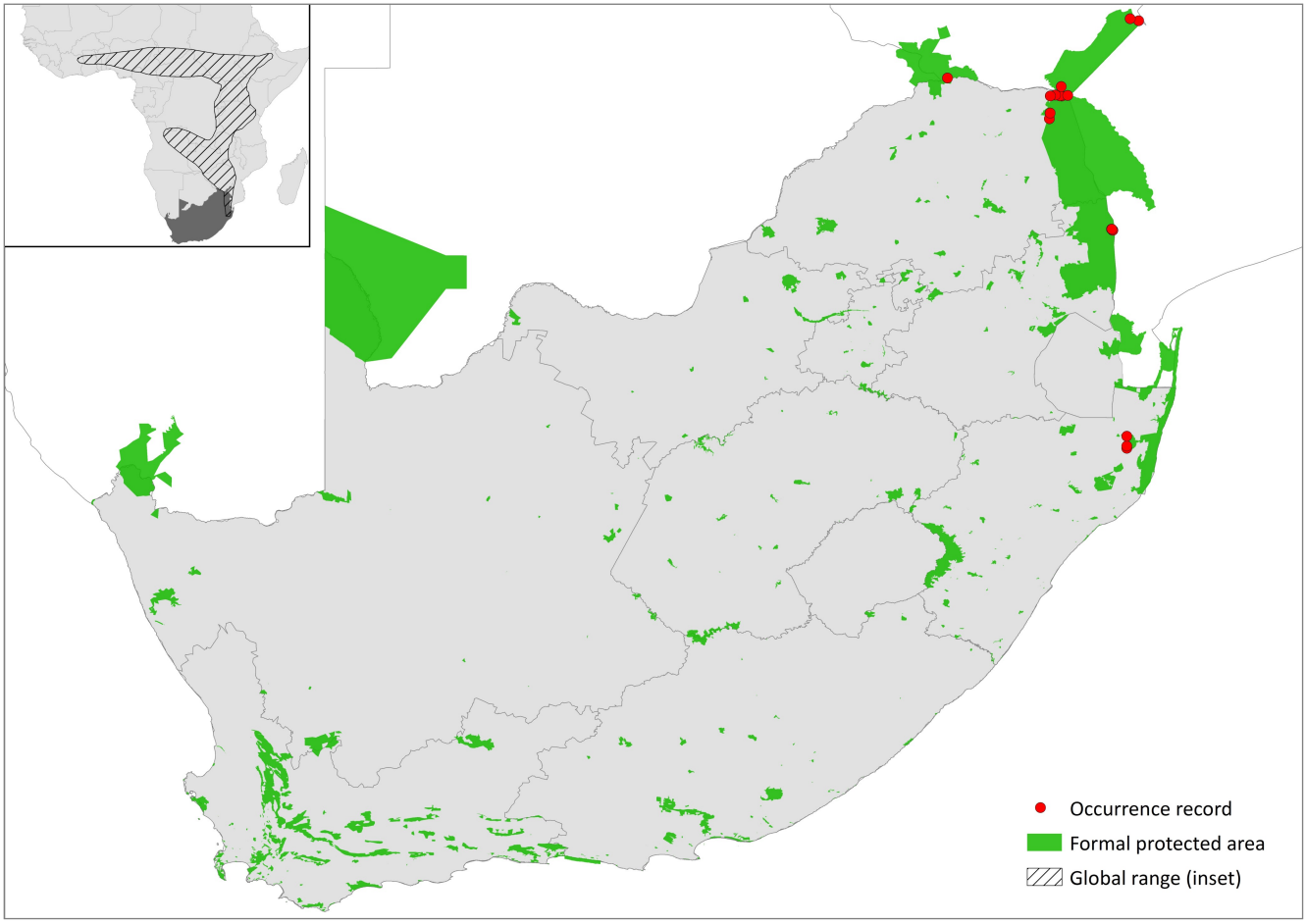

Figure 1. Distribution records for Ansorge's Free-tailed Bat (*Chaerephon ansorgei*) within the assessment region

Table 1. Countries of occurrence within southern Africa

Country	Presence	Origin
Botswana	Absent	-
Lesotho	Absent	-
Mozambique	Extant	Native
Namibia	Absent	-
South Africa	Extant	Native
Swaziland	Absent	-
Zimbabwe	Extant	Native

Fergusson 1993), but is known to roost in buildings, roofs of houses, mine adits and expansion joints of bridges. The availability of natural roost sites is considered a primary habitat requirement for this species (Skinner & Chimimba 2005). Coleoptera, Trichoptera and Lepidoptera constitute the majority of this species' diet (Fenton 1985). It is a gregarious species and roosts communally, usually in small to medium-sized groups (Allen et al. 1917). In Zimbabwe, reproductive studies have shown that it generally produces a single young in late November, with a second birth peak occurring in April (at the end of the warm, wet season) (Monadjem et al. 2010).

Ecosystem and cultural services: As this species is insectivorous, it may contribute to controlling insect populations (Boyles et al. 2011; Kunz et al. 2011). Bats often prey on the insect species that destroy crops (Boyles et al. 2011; Kunz et al. 2011). Ensuring a healthy population of insectivorous bats can thus result in a decrease in the use of pesticides.

Use and Trade

There is no evidence to suggest that this species is traded or harvested within the assessment region. However, in some parts of West Africa it is utilised (and possibly even over-utilised) as bushmeat (Mickleburgh et al. 2008).

Threats

No major threats have been identified for this species within the assessment region, although minor threats such as human disturbance at roost sites and the climatic

Table 2. Threats to the Ansorge's Free-tailed Bat (*Chaerephon ansorgei*) ranked in order of severity with corresponding evidence (based on IUCN threat categories, with regional context)

Rank	Threat description	Evidence in the scientific literature	Data quality	Scale of study	Current trend
1	*6.1 Recreational Activities*: roost disturbance during traditional ceremonies and tourism.	-	Anecdotal	-	Unknown

Table 3. Conservation interventions for the Ansorge's Free-tailed Bat (*Chaerephon ansorgei*) ranked in order of effectiveness with corresponding evidence (based on IUCN action categories, with regional context)

Rank	Intervention description	Evidence in the scientific literature	Data quality	Scale of evidence	Demonstrated impact	Current conservation projects
1	*2.1 Site/Area Management*: protection of key roost sites.	-	Anecdotal	-	-	-

impacts associated with global climate change have been identified for other bat species, and may similarly impact this species. In parts of West Africa this species may be vulnerable to overexploitation as a food source (Mickleburgh et al. 2008). There are also historic records from northeastern Democratic Republic of Congo of people suffocating bucket-loads of Ansorge's Free-tailed Bats to death in their roosting sites (Allen et al. 1917).

Current habitat trend: Stable

Conservation

Within the assessment region, this species occurs within protected areas, such as Kruger National Park and Mapungubwe National Park. No specific conservation efforts are necessary at present, although they are likely to benefit from enhanced protection of key roost sites.

Recommendations for land managers and practitioners:

- Reduce pesticide use in agricultural landscapes.

Research priorities:

- Field surveys are needed to identify further subpopulations and delimit its distribution range more accurately.
- The reproductive and feeding ecology of Ansorge's Free-tailed Bat requires further investigation.

Encouraged citizen actions:

- Citizens can assist the conservation of the species by reporting sightings on virtual museum platforms (for example, iSpot and MammalMAP), and therefore contribute to an understanding of the species distribution. Ansorge's Free-tailed Bat closely resembles the Egyptian Free-tailed Bat (*Tadarida aegyptiaca*), but is slightly smaller in size and lacks the unusually flattened skull seen in *T. aegyptiaca* (Rautenbach 1997).

Data Sources and Quality

Table 4. Information and interpretation qualifiers for the Ansorge's Free-tailed Bat (*Chaerephon ansorgei*) assessment

Data sources	Field study (unpublished), indirect information (expert knowledge), museum records
Data quality (max)	Inferred
Data quality (min)	Suspected
Uncertainty resolution	Expert consensus
Risk tolerance	Evidentiary

References

ACR. 2015. African Chiroptera Report 2015. Page i-xix + 7001 pp. AfricanBats, African Chiroptera Project, Pretoria, South Africa.

Allen JA, Lang H, Chapin J. 1917. The American Museum Congo Expedition collection of bats. Bulletin of the American Museum of Natural History **37**:405–563.

Boyles JG, Cryan PM, McCracken GF, Kunz TH. 2011. Economic importance of bats in agriculture. Science **332**:41–42.

Corbet GB, Hill JE. 1980. A World List of Mammalian Species. British Museum (Natural History) and Cornell University Press, London and Ithaca.

Cotterill FPD, Fergusson RA. 1993. Capturing free-tailed bats (Chiroptera: Molossidae): the description of a new trapping device. Journal of Zoology **231**:645–651.

Fenton MB. 1985. The feeding behaviour of insectivorous bats: echolocation, foraging strategies, and resource partitioning. Transvaal Museum Bulletin **21**:5–19.

Freeman PW. 1981. A multivariate study of the family Molossidae (Mammalia, Chiroptera): morphology, ecology, evolution. Fieldiana Zoology N.S. **7**:1–173.

Hayman RW, Hill JE. 1971. Order Chiroptera. Pages 1–73 in Meester J, Setzer HW, editors. The Mammals of Africa: An Identification Manual. Part 2. Smithsonian Institution Press, Washington, DC, USA.

Koopman KF. 1975. Bats of the Sudan. Bulletin of the American Museum of Natural History **154**:355–443.

Koopman KF. 1993. Order Chiroptera. Pages 137–241 in Wilson DE, Reeder DM, editors. Mammal Species of the World: A Taxonomic and Geographic Reference. Second edition. Smithsonian Institution Press, Washington, DC, USA.

Kunz TH, Braun de Torrez E, Bauer D, Lobova T, Fleming TH. 2011. Ecosystem services provided by bats. Annals of the New York Academy of Sciences **1223**:1–38.

Largen MJ, Kock D, Yalden DW. 1974. Catalogue of the mammals of Ethiopia. I. Chiroptera. Monitore Zoologico Italiano (Suppl. 5) **16**:221–298.

Meester JAJ, Rautenbach IL, Dippenaar NJ, Baker CM. 1986. Classification of southern African mammals. Transvaal Museum Monographs **5**:1–359.

Mickleburgh S, Hutson AM, Bergmans W, Cotterill FPD. 2008. *Chaerephon ansorgei*. Page e.T4306A10773755. The IUCN Red List of Threatened Species.

Monadjem A, Taylor PJ, Cotterill FPD, Schoeman MC. 2010. Bats of Southern and Central Africa: A Biogeographic and Taxonomic Synthesis. University of the Witwatersrand Press, Johannesburg, South Africa.

Rautenbach N. 1997. Ansorge's free-tailed bat *Chaerephon ansorgei*. Page 79 in Mills G, Hes L, editors. The Complete Book of Southern African Mammals. Struik Publishers, Cape Town, South Africa.

Sherwin HA, Montgomery WI, Lundy MG. 2013. The impact and implications of climate change for bats. Mammal Review **43**: 171–182.

Skinner JD, Chimimba CT. 2005. The Mammals of the Southern African Subregion. Third edition. Cambridge University Press, Cambridge, UK.

Assessors and Reviewers

Ara Monadjem[1], Peter Taylor[2], Lientjie Cohen[3], David Jacobs[4], Kate MacEwan[5], Leigh Richards[6], Corrie Schoeman[7], Theresa Sethusa[8]

[1]University of Swaziland, [2]University of Venda, [3]Mpumalanga Tourism and Parks Agency, [4]University of Cape Town, [5]Inkululeko Wildlife Services, [6]Durban Natural Science Museum, [7]University of KwaZulu-Natal, [8]South African National Biodiversity Institute

Contributors

Lizanne Roxburgh[1], Domitilla Raimondo[2], Claire Relton[1]

[1]Endangered Wildlife Trust, [2]South African National Biodiversity Institute

Details of the methods used to make this assessment can be found in *Mammal Red List 2016: Introduction and Methodology.*