Hipposideros vittatus – Striped leaf-nosed Bat


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Regional Red List status (2016)	**Least Concern**
National Red List status (2004)	Not Evaluated
Reasons for change	Non-genuine change: New information
Global Red List status (2008)	Near Threatened A
TOPS listing (NEMBA) (2007)	None
CITES listing	None
Endemic	No

Sexual dimorphism is evident in this species; apart from the differences in colouring, females weigh approximately 80 grams, while a male in peak condition can weigh more than 200 grams (Monadjem et al. 2010).

Taxonomy

Hipposideros vittatus (Peters, 1852)

ANIMALIA - CHORDATA - MAMMALIA - CHIROPTERA - HIPPOSIDERIDAE - *Hipposideros* - *vittatus*

Synonyms: *Phyllorhina vittata*, *Phyllorhina commersoni*, *Hipposideros thomensis*

Common names: Striped Leaf-nosed Bat, Commerson's Leafnosed Bat, Commerson's Rhinolph, Commerson's Roundleaf Bat, Giant Leaf-nosed Bat (English)

Taxonomic status: Species

Taxonomic notes: This species was previously included under *Hipposideros commersoni*. However, *H. commersoni* is now considered endemic to Madagascar (Monadjem et al. 2010). It is likely that specimens in West Africa, identified as *Hipposideros gigas*, may in fact represent *H. vittatus* (J. Fahr pers. comm.). Taxonomic revision is required to clarify the relationship between *H. vittatus* and *H. curtus* (Mickleburgh et al. 2008), as well as between *H. vittatus* and *H. gigas* (Monadjem et al. 2010).

Assessment Rationale

The species is only known from the northern part of the assessment region (extent of occurrence estimated at 1,419 km^2), where it occurs in Pafuri, Kruger National Park. Although it qualifies for Vulnerable D2 based on limited number of locations, there are no plausible threats. While no information exists on population size in the assessment region, it is numerous outside South Africa. Thus we assume the population is fairly large and stable in Kruger National Park. We list this species as Least Concern.

Regional population effects: The subpopulations that occur in northern Kruger National Park are part of a population that is continuous across the border occurring throughout most of Zimbabwe and Mozambique. The species overall is widespread in the rest of Africa. Striped Leaf-nosed Bats have a high wing-loading (Norberg & Rayner 1987), and presumably good dispersal potential, and thus rescue effects are possible.

Distribution

Although fairly sparse within its distribution, this species ranges through much of southern, Central and East Africa. The northeastern extent of its range extends from Ethiopia and Somalia to Kenya, Tanzania, Malawi, Zambia and Mozambique. It has a patchy distribution through Central Africa in the Democratic Republic of Congo, Central African Republic, Angola, and spreads westwards to Nigeria and Guinea. The southern portion of its distribution includes Zimbabwe, Botswana, Namibia and the extreme northeastern regions of South Africa. Within the assessment area, the species is limited to the Limpopo Province of South Africa, occurring in Pafuri in the northern Kruger National Park (Figure 1; Monadjem et al. 2010). It is absent from Lesotho and Swaziland and most parts of South Africa.

Population

There is no information on the number of individuals occurring within the assessment region. It is presumed to be fairly common as it is relatively well represented in museums with over 2020 specimens examined in Monadjem et al. (2010). In other parts of its range, it has been documented in large ancestral roosts, consisting of tens of thousands of individuals, which are known to exhibit extensive migrations (Mickleburgh et al. 2008).

Current population trend: Stable in the assessment region, but declining elsewhere in Africa.

Continuing decline in mature individuals: No

Number of mature individuals in population: Unknown

Number of mature individuals in largest subpopulation: Unknown

Number of subpopulations: One

Severely fragmented: No

Recommended citation: Monadjem A, Jacobs D, Cohen L, Richards LR, Schoeman C, Sethusa T, Taylor PJ. 2016. A conservation assessment of *Hipposideros vittatus*. 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.

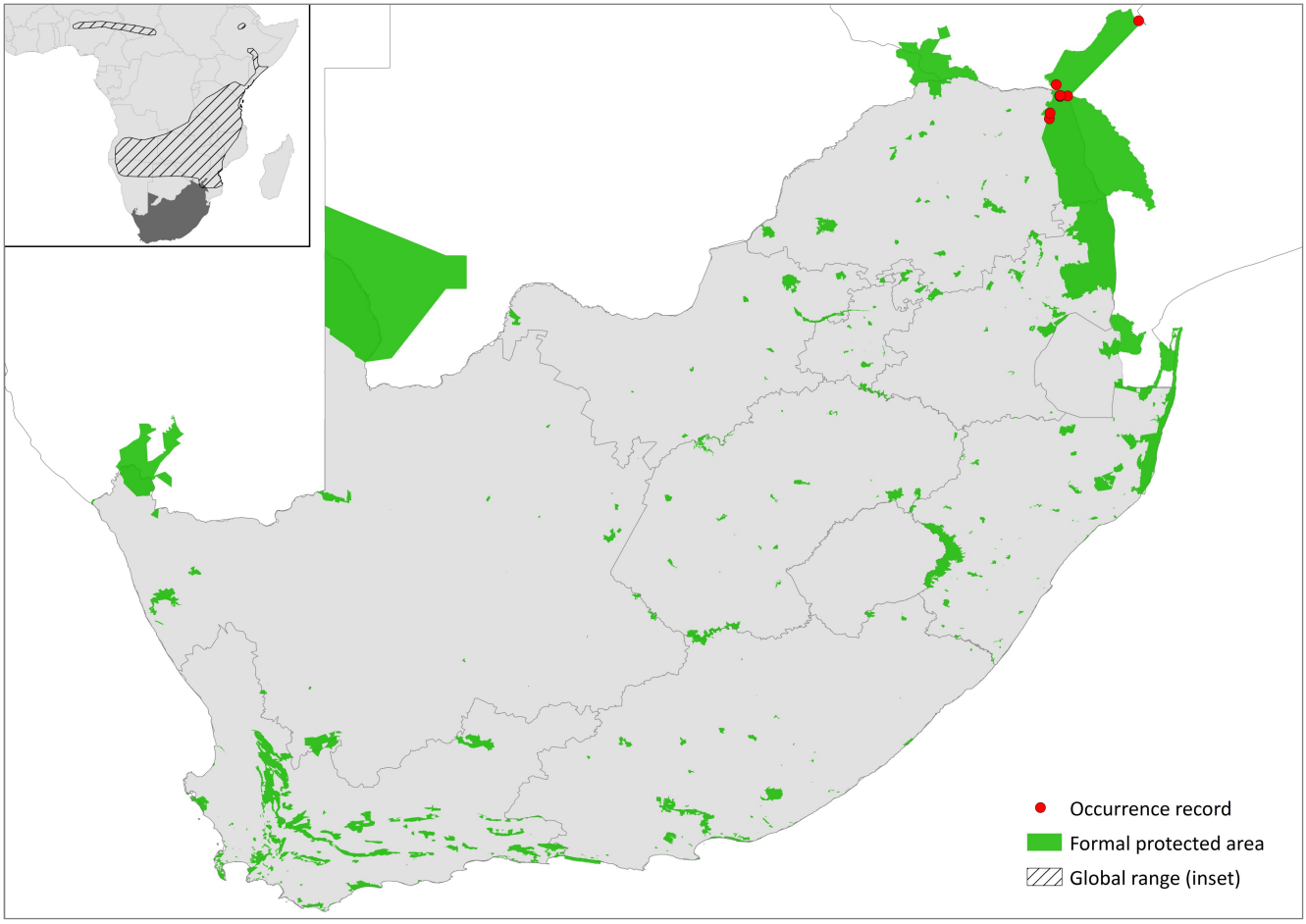

Figure 1. Distribution records for Striped Leaf-nosed Bat (*Hipposideros vittatus*) within the assessment region

Table 1. Countries of occurrence within southern Africa

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

Habitats and Ecology

The Striped Leaf-nosed Bat occupies a variety of savannah and woodland habitats, ranging from arid scrubby savannah in Namibia to moist Miombo Woodland in Zimbabwe and Mozambique (Cotterill 2001). In southern Africa it is recorded from the Mopane Bioregion. The species is a clutter-edge forager with a diet consisting mostly of Coleoptera, only occasionally consuming Isoptera (Monadjem et al. 2010). It is entirely dependent on large caves for breeding, where large colonies numbering hundreds of thousands of individuals may aggregate (Monadjem et al. 2010). When suitable caves are available for roosting, extremely large colonies of *H. vittatus* can occur, but smaller groups do also roost in dense vegetation, hollow trees and tree canopies (Happold 1987; Skinner & Chimimba 2005). It is frequently seen flying between and within buildings, and occasionally roosts under the eaves of buildings (Skinner & Chimimba 2005). Males exhibit territorial behaviour between February and July, but will roost together during the rest of the year (Monadjem et al. 2010). Generally mating commences in June/July, and pregnant females leave the breeding roost for about two months before returning in late October to give birth (Cotterill & Fergusson 1999).

Ecosystem and cultural services: The species' feeding ecology makes them important regulators of insect populations (Boyles et al. 2011; Kunz et al. 2011). Bats particularly feed on species that damage crops, and agricultural areas with bats require less pesticides (Kunz et al. 2011).

Use and Trade

There is no evidence to suggest that the species is traded or harvested within the assessment area but the literature suggests that the species is targeted in some areas of its distribution for bushmeat (Monadjem et al. 2010). Additionally, in parts of Africa the fat of this species is utilised in the manufacture of candles (Mickleburgh et al. 2008).

Threats

There are no major threats to this species in the assessment region as it is predominantly restricted to the Kruger National Park protected area. However, in other parts of its range, this large insectivorous species is sensitive to disturbance of its cavernicolous roosts (especially by guano mining). It is also a popular target of bushmeat hunters within its distribution (Monadjem et al.

Table 2. Threats to the Striped Leaf-nosed Bat (*Hipposideros vittatus*) 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	*5.1.1 Hunting & Collecting Terrestrial Animals*: bushmeat hunting.	-	Anecdotal	-	Unknown
2	*6.1 Recreational Activities*: roost disturbance.	-	Anecdotal	-	Unknown

2010), and in some parts of its range, people have been known to utilise its fat for making candles, as it stores relatively large proportions of fat in its body (Mickleburgh et al. 2008).

Current habitat trend: Stable.

Conservation

This species occurs within the Kruger National Park in the Limpopo Province, thus no species-specific conservation measures are deemed necessary as roost sites are likely to be safe from disturbance within this protected area.

Research priorities:

- Taxonomic revision is required to clarify the relationship between *H. vittatus* and *H. curtus*/ *H. gigas*.
- Field surveys are needed to generate population size and trend data.

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.

References

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Data Sources and Quality

Table 3. Information and interpretation qualifiers for the Striped Leaf-nosed Bat (*Hipposideros vittatus*) 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

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