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Macronycteris vittatus, Striped Leaf-nosed Bat

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Chiroptera	Hipposideridae

Scientific Name: Macronycteris vittatus Peters, 1852

Synonym(s):

- Hipposideros marungensis Noack, 1887
- Hipposideros vittatus (Peters, 1852)

Common Name(s):

• English: Striped Leaf-nosed Bat

Taxonomic Notes:

This species was previously included under *Hipposideros commersoni*, now considered endemic to Madagascar (Monadjem *et al.* 2010). Historically, these large hipposiderids were grouped together and later divided into *H. gigas* and *vittatus* (Monadjem *et al.* 2010, Rakotoarivelo *et al.* 2015). In 2017 the *commersoni* species group was placed in a separate genus, *Macronytceris* (Foley *et al.* 2017). There is still confusion over the taxonomy of this group on mainland Africa with the potential presence of undescribed cryptic diversity.

Assessment Information

Red List Category & Criteria:	Near Threatened A4cd <u>ver 3.1</u>			
Year Published:	2020			
Date Assessed:	June 20, 2019			

Justification:

This species is listed as Near Threatened (nearly meets criterion A4cd) as its global population is suspected to have declined by 25-30% over the past 10 years (two generations) and will continue to decline over next 5 years (one generation; generation length = 5 years, Pacifici *et al.* 2013) due to habitat loss and harvest, making it close to qualifying as Vulnerable under A4c. Although the species is still widely distributed, a large proportion of the global population of this species is found in a few very large cave roosting colonies that are threatened by forest loss and degradation and cave/mine loss, disturbance, and over harvest.

Previously Published Red List Assessments

2008 – Near Threatened (NT) https://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T135485A4129766.en

Geographic Range

Range Description:

This species has mainly been recorded from East Africa and southern Africa with scattered records from West Africa and Central Africa. In East Africa the species ranges from Ethiopia and Somalia in the north, through Kenya and Tanzania to Malawi, Zambia and Mozambique. In southern Africa it has been recorded in Zimbabwe, Botswana, Namibia and marginally in northeastern South Africa. In Central Africa there are patchy records from Angola, eastern Democratic Republic of the Congo and Central African Republic. In West Africa the species currently appears to limited to a few records from Nigeria, lvory Coast and Sierra Leone but may have been under-reported from this region. It has been recorded from around sea level to 1,700 m asl.

Country Occurrence:

Native, Extant (resident): Angola; Botswana; Central African Republic; Côte d'Ivoire; Ethiopia; Kenya; Malawi; Mozambique; Namibia; Nigeria; Sierra Leone; Somalia; South Africa; Tanzania, United Republic of; Zambia; Zimbabwe

Distribution Map



Legend EXTANT (RESIDENT)

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Population

The global population is estimated to have declined in the past and will continue to decline in the future; it is suspected that the population will undergo a reduction of 25-30% over the three generation period from 2009 to 2024. This species is historically known to exist in a few large roosts, containing tens of thousands of individuals, which seasonally migrate considerable distances. Some roosts that have been continuously used over decades, and perhaps much longer, appear to have been lost. In some areas the species roosts in smaller colonies.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This species has been recorded from a variety of savanna habitat types, but avoids lowland rainforest. In East and southern Africa it seems to be largely associated with savanna woodland habitats (Skinner and Chimimba 2005). In West Africa this species has been recorded from the transition zone between forest and savanna (Decher *et al.* 2010, Fahr and Kalko 2011). The species can occur locally in very large numbers (thousands of individuals) where suitable cave habitats are available, however, animals have been recorded (presumably in considerably smaller numbers) roosting in tree canopies, hollow trees and dense vegetation (Skinner and Chimimba 2005, Monadjem *et al.* 2010). This bat has been recorded flying among and within buildings, and roosting under the eaves of buildings (Skinner and Chimimba 2005).

Systems: Terrestrial

Use and Trade

This species' fat is used in the manufacture of candles for local use.

Threats (see Appendix for additional information)

Although the species is still widely distributed, a large proportion of the global population of this species is found in a few very large cave roosting colonies that are threatened by forest loss and degradation and cave/mine loss, disturbance, and over harvest. A number of the major colonies are threatened by the mining of limestone caves, disturbance by tourists, and subsistence overhunting, particular for the use of their fat for making candles (this species stores particularly large amounts of fat in its body [Churchill *et al.* 1997]).

Conservation Actions (see Appendix for additional information)

This species is present in a number of protected areas in East Africa, it has been recorded from Tsavo National Park in Kenya. In southern Africa it has been recorded from the Kruger National Park in Limpopo Province, South Africa and from Gorongosa National Park, Mozambique (Monadjem *et al.* 2010). The Gorongosa site also includes a large roost in a natural cave network. There is a need to protect important roosting sites of this species, and to limit collection of animals to sustainable levels. Additional studies are needed into the identity of populations currently allocated to *Hipposideros vittatus*.

Credits

Assessor(s):	Mickleburgh, S., Hutson, A.M., Bergmans, W., Cotterill, F.P.D. & Cooper-Bohannon, R.
Reviewer(s):	Monadjem, A. & Waldien, D.L.
Authority/Authorities:	IUCN SSC Bat Specialist Group

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External Resources

For <u>Supplementary Material</u>, and for <u>Images and External Links to Additional Information</u>, please see the Red List website.

Appendix

Habitats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.6. Forest - Subtropical/Tropical Moist Lowland	-	Suitable	-
2. Savanna -> 2.1. Savanna - Dry	-	Suitable	-
2. Savanna -> 2.2. Savanna - Moist	-	Unknown	-
7. Caves and Subterranean Habitats (non-aquatic) -> 7.1. Caves and Subterranean Habitats (non-aquatic) - Caves	-	Suitable	-
7. Caves and Subterranean Habitats (non-aquatic) -> 7.2. Caves and Subterranean Habitats (non-aquatic) - Other Subterranean Habitats	-	Suitable	-
14. Artificial/Terrestrial -> 14.4. Artificial/Terrestrial - Rural Gardens	-	Suitable	-

Use and Trade

(http://www.iucnredlist.org/technical-documents/classification-schemes)

End Use	Local	National	International
Other household goods	No	Yes	Yes

Threats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion		
		1. Ecosystem stre	esses -> 1.2. Ecosyster	n degradation
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Ongoing	-	-	Low impact: 3
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	-	-	Low impact: 3
	Stresses:	2. Species Stress	es -> 2.2. Species dist	urbance

Conservation Actions in Place

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action in Place

In-place land/water protection

Conservation sites identified: Yes, over entire range

Conservation Actions Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action Needed

1. Land/water protection -> 1.1. Site/area protection

2. Land/water management -> 2.1. Site/area management

3. Species management -> 3.1. Species management -> 3.1.1. Harvest management

4. Education & awareness -> 4.3. Awareness & communications

Research Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Research Needed	
1. Research -> 1.1. Taxonomy	
1. Research -> 1.2. Population size, distribution & trends	
1. Research -> 1.4. Harvest, use & livelihoods	
3. Monitoring -> 3.1. Population trends	

Additional Data Fields

Distribution
Lower elevation limit (m): 0
Upper elevation limit (m): 1,700
Population
Population severely fragmented: No
Habitats and Ecology
Generation Length (years): 5
Movement patterns: Full Migrant
Congregatory: Congregatory (and dispersive)

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