Nycteris woodi – Wood's Slit-faced Bat

Photograph wanted

Regional Red List status (2016)	Near Threatened B1ab(ii,iii,iv,v)*
National Red List status (2004)	Near Threatened B2a
Reasons for change	No change
Global Red List status (2016)	Least Concern
TOPS listing (NEMBA) (2007)	None
CITES listing	None
Endemic	Edge of range

*Watch-list Data

This species is not widespread in the assessment region, and is difficult to monitor due to its acoustic characteristics and avoidance of mist nets (Monadjem et al. 2010; ACR 2015).

Assessment Rationale

This is an edge of range species, known from four collection areas in the assessment region from northern Limpopo, including Greater Mapungubwe Transfrontier Conservation Area and Kruger National Park (KNP). It is poorly known and has not been recorded in the assessment region since 1986, with one exception being from Pafuri (KNP) in July 2006 (C. Schoeman unpubl. data). This could be because it avoids mist nets and is a whispering echolocating bat, hence difficult to monitor acoustically. Although the species occurs in at least two protected areas, parts of its roost and foraging and roosting habitats are threatened by agricultural expansion and logging. As the extent of occurrence is 8,922 km^2, its habitat may be declining, it has been infrequently sampled over three decades, its subpopulations may be isolated due to presumed poor dispersal capacity based on relatively low wing loading, and it has been found only in four locations, we list it as Vulnerable B1ab(ii,iii,iv,v). However, due to application of the regional criterion (see below) we downlist it to Near Threatened B1ab(ii,iii,iv,v). Further field studies are needed to confirm its presence in the assessment region to determine its range, population size and trend more accurately. It should be reassessed once more data are available.

Regional population effects: This species has low wing-loading (Monadjem et al. 2010), and thus significant dispersal is unlikely. However, the resident population appears continuous with the Zimbabwean population and its habitat is connected between the regions through both the Great Limpopo Transfrontier Park and the Greater Mapungubwe Transfrontier Conservation Area. Thus we assume rescue effects are possible.

Taxonomy

Nycteris woodi K. Andersen 1914

ANIMALIA - CHORDATA - MAMMALIA - CHIROPTERA - NYCTERIDAE - *Nycteris - woodi*

Synonyms: *Nycteris sabiensis* Roberts 1946

Common names: Wood's Slit-faced Bat, Wood's Long-eared Bat (English), Wood se Speetneusvlermuis, Wood-spleetneusvlermuis, Woodse Langoorvlermuis (Afrikaans)

Taxonomic status: Species

Taxonomic notes: Historically, two subspecies were previously recognised: *Nycteris woodi sabensis* (Roberts 1946) from Zimbabwe and a Zambian counterpart, *N. w. woodi* (Skinner & Chimimba 2005). Since these two subspecies do not appear to be geographically isolated, they are not currently distinguished as subspecies (Monadjem et al. 2010; Cotterill 2013). It is also not considered to include *N. parisii* (Cotterill 2013). Taxonomic revision of this group is necessary (Monadjem et al. 2010).

Distribution

This species has been recorded from southern and northern Zimbabwe, Zambia, Malawi and the extreme northeastern regions of South Africa. One specimen is known from Chicoa in Mozambique but is probably more widespread along the Limpopo, Save and Zambezi valleys (Cotterill 2013). Similarly, one specimen has been recorded from southwestern Tanzania (Cotterill 2013). It is generally a lowland species (ACR 2015). In the assessment region, it occurs in the extreme northern areas of Limpopo (Limpopo valley) in the Great Limpopo Transfrontier Park and Greater Mapungubwe Transfrontier Conservation Area (Figure 1), with an estimated extent of occurrence of 8,922 km^2.

Population

The abundance of this species is not well known. It is considered one of the rarest African nycterids (Van Cakenberghe & De Vree 1985), and is poorly represented in museums with only *c*. 50 specimens examined in Monadjem et al. (2010). However, it is locally common in Zimbabwe, especially in the low-lying valleys of the Limpopo, Save and Zambezi rivers and tributaries

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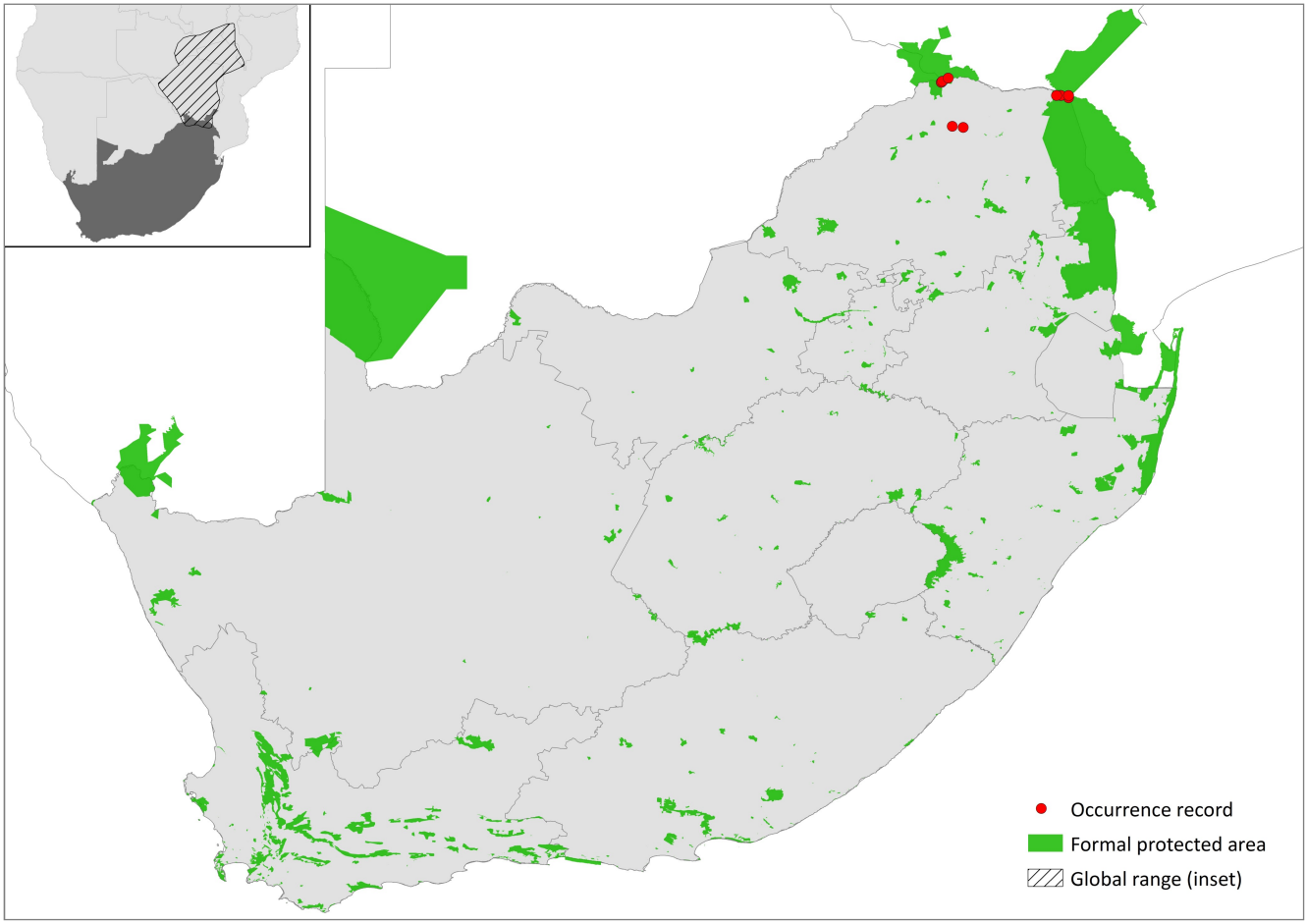

Figure 1. Distribution records for Wood's Slit-faced Bat (*Nycteris woodi*) within the assessment region

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

(Cotterill 1996). It has been recorded in colonies of a few dozen up to 40 individuals (Monadjem et al. 2010), otherwise animals have been recorded individually (ACR 2015). This species is difficult to monitor because it avoids mist nets and cannot be monitored acoustically because it is a whispering bat.

Current population trend: Suspected to be declining

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

It occurs in semi-arid and moist woodland savannahs (including miombo and mopane woodlands) where suitable day-roosts are available (Cotterill 2013). The natural history of this species is not well-known. It roosts in hollow trees (particularly Baobabs *Adansonia digitata* and Sausage Trees *Kigelia africana*), sandstone caves, rock fissures, mine adits and buildings (Ansell 1967; Cotterill 1996, 2013; Skinner & Chimimba 2005). Although the type specimen from Zambia was collected at 1,250 m asl, this species is typically restricted to an altitude below 1,000 m asl (Meester et al. 1986). It lives in colonies of up to 40 individuals (Monadjem et al. 2010). In the assessment area, the species is recorded from the Mopane Bioregion.

Like the other *Nycteris* species, the Wood's Slit-faced Bat is a clutter forager, mainly feeding on Lepidoptera, Coleoptera and Diptera (Monadjem et al. 2010). Its short, broad wings allow for manoeuvrable flight patterns (Monadjem et al. 2010). Although limited data are available on the reproductive ecology of this species, it seems to be a summer breeder (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.

Table 2. Threats to the Wood's Slit-faced Bat (*Nycteris woodi*) 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	*5.3.3 Logging & Wood Harvesting:* loss of large trees used for roosting.	Munyati & Kabanda 2009	Indirect	Local	Increasing
2	*2.1.3 Annual & Perennial Non-Timber Crops*: habitat loss due to agricultural expansion. Current stress *1.1 Ecosystem Conversion.*	-	Anecdotal	-	Ongoing
3	*9.3.3 Agricultural & Forestry Effluents:* loss of prey base from insecticide use. Current stress *1.2 Ecosystem Degradation*.	-	Anecdotal	-	Ongoing
4	*6.1 Recreational Activities*: roost disturbance during traditional ceremonies, which frequently take place in caves.	-	Anecdotal	-	Unknown

Table 3. Conservation interventions for the Wood's Slit-faced Bat (*Nycteris woodi*) 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, specifically large trees.	-	Anecdotal	-	-	-

Use and Trade

There is no evidence to indicate that this species is used or traded within the assessment region.

Threats

No major threats have been identified for this species within the assessment region. Although much of this species range in the assessment region is within protected regions in the Limpopo Province, roost sites outside of these reserves may be impacted by human disturbance (as caves are frequently utilised during traditional ceremonies and ecotourism) and habitat loss due to agricultural expansion (particularly cotton farming). Pesticide use and the loss of hollow Baobabs used as roosts are likely to cause local population decline (Cotterill 2013).

Current habitat trend: Stable. The Savannah Biome is not threatened in the assessment region (Driver et al. 2012). However, recent land-cover analysis reveals that 20% of forest and woodland cover was lost from 1990 to 2006 in the Soutpansberg Mountains region due to logging, residential expansion and pine/eucalyptus plantations (Munyati & Kabanda 2009). Similar threats could be occurring within the range of the species.

Conservation

Wood's Slit-faced Bat has been recorded from the protected Kruger National Park and Greater Mapungubwe Transfrontier Conservation Area. Additional studies into the distribution, natural history and possible threats to this poorly known species are urgently required before specific interventions can be devised. However, as cavities in large trees, such as Baobabs and Sausage Trees (Cotterill 2013), provide critical roost sites and cool microhabitats (*sensu* Toussaint & McKechnie 2012), the protection and preservation of these trees is considered crucial for the prolonged local presence of this species.

Data Sources and Quality

Table 4. Information and interpretation qualifiers for the Wood's Slit-faced Bat (*Nycteris woodi*) assessment

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

Recommendations for land managers and practitioners:

- Reduce pesticide use in agricultural landscapes.
- Protect and preserve large trees, which provide valuable roosting sites for this species.

Research priorities:

- A top research priority should be to determine whether this species is still present within the assessment region, as well as determining its current population size and trend.
- Investigations into the possible threats faced by this species, including impacts from climate change.

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.

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