Nycteris thebaica – Egyptian Slit-faced Bat


Merlin Tuttle

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

Tree cover is essential for this species, both in providing cool microhabitats for roosting during high ambient temperatures and as cover from predators whilst foraging close to the ground (Monadjem et al. 2010; Toussaint & McKechnie 2012).

Taxonomy

Nycteris thebaica É. Geoffroy Saint-Hilaire 1813

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

Synonyms: *Nycteris geoffroyi* Desmarest 1820, *N. affinis* A. Smith 1829, *N. capensis* A. Smith 1829, *N. albiventer* Wagner 1840, *N. discolour* Wagner 1840, *N. fuliginosa* Peters 1852, *N. labiata* Heuglin 1861, *Plecotus æthiopicus* Heuglin & Fitzinger 1866, *N. angolensis* Peters 1871, *N. damarensis* Peters 1871, *N. revoilii* Robin 1881

Common names: Egyptian Slit-faced Bat, Common Slit-faced Bat, Geoffroy's Nycteris, Cape Long-eared Bat (English), Gewone Spleetneusvlermuis, Egiptiese Spleetneusvlermuis, Kaapse Langoorvlermuis (Afrikaans)

Taxonomic status: Species

Taxonomic notes: Meester et al. (1986) recognised three subspecies in the region; however, these three populations do not appear to occupy geographically isolated areas and because they represent stages in a gradual cline in characters from east to west where individuals in the east tend to be darker and smaller, while those from the Northern Cape and Namibia are significantly larger and distinctly paler (Monadjem et al. 2010), we do not recognise any subspecies in southern Africa.

Assessment Rationale

This species has a large range (estimated extent of occurrence is 1,442,577 km^2) within the assessment region, occurring in most regions (besides much of the Highveld grasslands) including many protected areas and modified habitats. It is presumed to be abundant, with roosts containing hundreds of individuals, and faces no major threats. Hence it is listed as Least Concern.

Regional population effects: The range of this species extends across most of southern Africa, and dispersal is likely between South Africa and Namibia, Zimbabwe and Mozambique. Although it has low wing-loading (Monadjem et al. 2010), it is capable of dispersing great distances. For example, a banded individual was recovered 100 km from where it was originally captured by Monadjem (2005).

Distribution

Broadly distributed across savannah and riparian zones, this species is predominantly found in sub-Saharan Africa. However, it has also been recorded in Morocco, Libya, Egypt (primarily down the Nile River valley, but also into Sinai) and the Middle East (Israel, Palestine and Jordan). Its altitudinal range extends from sea level to about 2,000 m asl (ACR 2015). It is absent from the open semi-arid grassland regions of southern Botswana. It is common in the assessment region, occurring in all provinces of South Africa, as well as in Swaziland but not Lesotho. It is common in the North West, Gauteng, Mpumalanga, Free State and KwaZulu-Natal provinces, but is considered rare in the Northern, Western and Eastern Cape (Figure 1; Skinner & Chimimba 2005), and is absent from much of the plateau grasslands (Monadjem et al. 2010). Its estimated extent of occurrence is 1,442,577 km^2.

Population

It is fairly common through most of its African range and is particularly common throughout the assessment region. Both day and night roosts may contain hundreds of individuals (Monadjem 1998), thus we infer a large population size. Overall, it is well represented in museums, with over 1,200 specimens examined by Monadjem et al. (2010). Monadjem (2001) found the adult sex ratio to be highly skewed and seasonally variable in this species, with females usually outnumbering males by 2.8:1 between July and December.

Current population trend: Stable

Continuing decline in mature individuals: None

Number of mature individuals in population: Unknown

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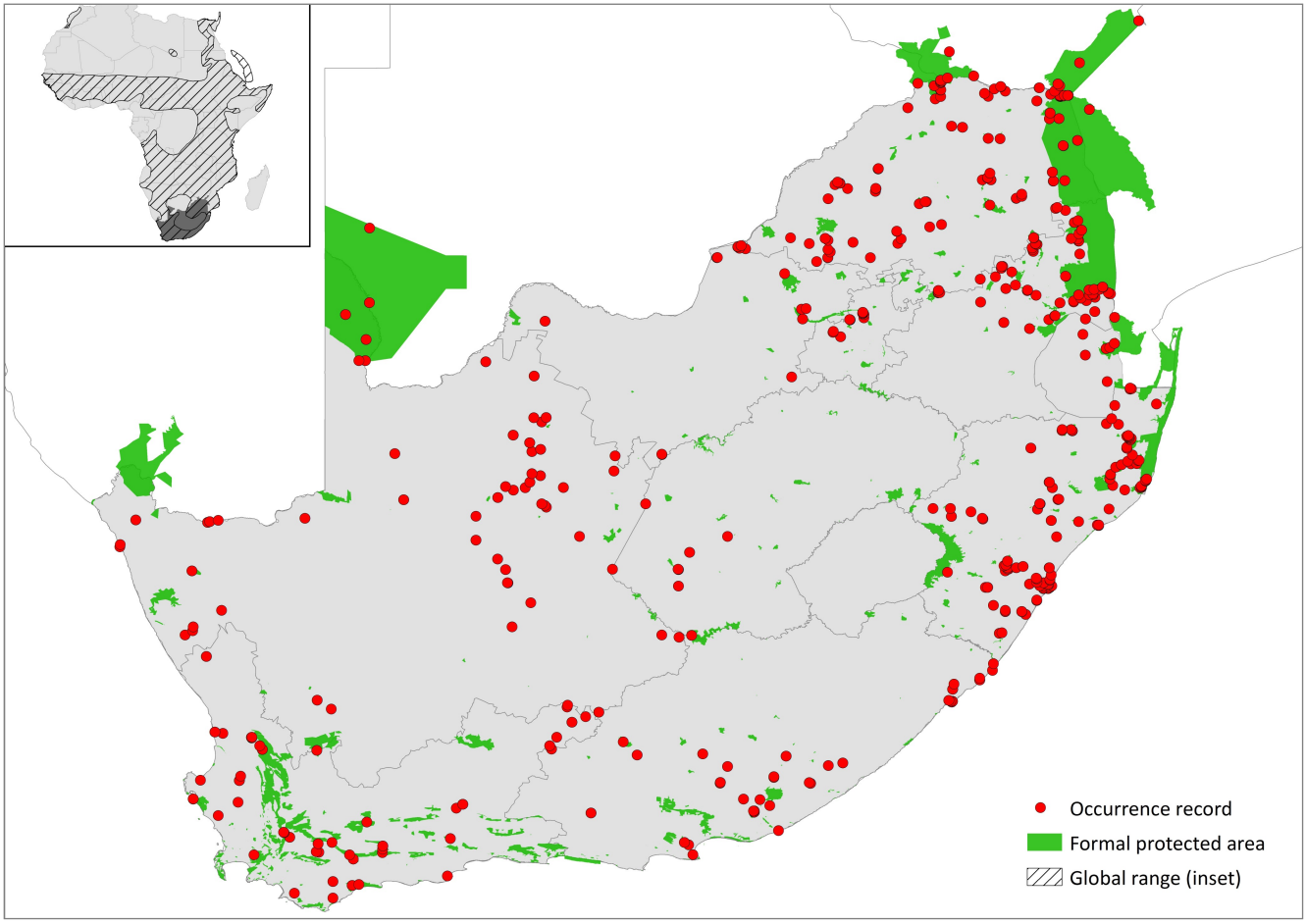

Figure 1. Distribution records for Egyptian Slit-faced Bat (*Nycteris thebaica*) within the assessment region

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	Extant	Native
Zimbabwe	Extant	Native

Number of mature individuals in largest subpopulation: >100

Number of subpopulations: Unknown

Severely fragmented: No

Habitats and Ecology

A savannah species with wide habitat tolerance, the Egyptian Slit-faced Bat occurs in moist and dry savannah, ranging into desert, arid rocky areas, and riparian strips. It appears to occur throughout the savannah and Karoo biomes, but avoids open grasslands (Monadjem et al. 2010), possibly because it needs tree cover. For example, it forages by flying low above the ground, listening for prey scurrying on the surface, which may make it susceptible to predation by owls, hence the requirement for tree cover (Photo 1) (Monadjem et al. 2010).

This is essentially a cave-roosting species but it may also roost during the day in mine adits, Aardvark (*Orycteropus afer*) holes, rock crevices, culverts under roads, roofs and hollow trees, typically in open savannah woodland (Smithers & Lobao-Tello 1976; Taylor 1998). It is a clutter forager and its insectivorous diet varies seasonally, with Orthoptera, Coleoptera and Lepidoptera predominating (Monadjem et al. 2010). Arachnids, amphibians, fish and vegetative matter may also form small proportions of its diet (Skinner & Chimimba 2005).

This gregarious species roosts in colonies ranging in size of up to a few hundred individuals, which are loosely packed and in scattered groups (Skinner & Chimimba 2005). It has also been recorded roosting alongside other species, such as *Miniopterus schreibersii*, *Hipposideros caffer* and *Rhinolophus simulator* (Skinner & Chimimba 2005). Although other species are known to hover during copulation, in *N. thebaica* copulation takes place in flight (Lindeque 1987). In KwaZulu-Natal, studies showed that young are born in November following a five-month gestation period, and lactation was found to last two months (Bernard 1982). In Swaziland, individuals travel an average of 1.1 km between day roosts and foraging areas where foraging home ranges are relatively small (12.9 ha) and overlap significantly with those of neighbouring bats (Monadjem et al. 2009). Records show that this species cannot be kept in captivity for longer than 3 days (Fenton et al. 1983).

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.

Threats

There are currently no major threats to this species. Habitat destruction and degradation have been identified as threats in other regions of this species' range, such as the Mediterranean (ACR 2015). Climate change and the associated increase in ambient temperature has been identified as a threat for bat species, and specifically in *N. thebaica* water stress and aerial hawking are considered factors at risk due to climate change (Sherwin et al. 2013). As a cave-roosting species, *N. thebaica* may be threatened by human disturbance at roost sites as a result of traditional ceremonies and tourism, which frequently take place in caves.

Current habitat trend: Stable

Conservation

The species occurs in more than 10 protected areas within the assessment region and is found in many large reserves including Kruger National Park, Kgalagadi Transfrontier Park and iSimangaliso Wetland Park, thus is considered well protected. Continued protection of the roost sites outside protected areas is required. Additionally, cavities in large trees, such as Baobabs, provide critically important cool microhabitats for this species, and may assist in buffering increases in ambient temperature associated with climate change (Toussaint & McKechnie 2012). Thus, the protection and preservation of these trees is considered crucial for the prolonged local presence of this species.

Recommendations for land managers and practitioners:

- Protect and preserve large trees, which provide critically important cool, microhabitats for this species.

Photo 1. *Nycteris thebaica* forages low to the ground, listening to prey scurrying on the surface (Merlin Tuttle)

- Reduce pesticide use in agricultural landscapes.

Research priorities:

- Seasonal behaviour and movement patterns.
- Population size and trends.
- Investigations into how climate change may affect this species.

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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Table 2. Threats to the Egyptian Slit-faced Bat (*Nycteris thebaica*) 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	*11.1 Habitat Shifting & Alteration*: climate change and severe weather affecting water stress and aerial hawking.	Sherwin et al. 2013	Simulation	International	Increasing
2	*6.1 Recreational Activities*: roost disturbance during traditional ceremonies and tourism, which frequently take place in caves.	-	Anecdotal	-	Unknown

Table 3. Conservation interventions for the Egyptian Slit-faced Bat (*Nycteris thebaica*) 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 Baobab trees.	-	Anecdotal	-	-	-

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Data Sources and Quality

Table 4. Information and interpretation qualifiers for the Egyptian Slit-faced Bat (*Nycteris thebaica*) assessment

Data sources	Field study (unpublished), indirect knowledge (literature), museum records
Data quality (max)	Estimated
Data quality (min)	Inferred
Uncertainty resolution	Best estimate
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.*