Taphozous mauritianus – Mauritian Tomb Bat


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Regional Red List status (2016)	**Least Concern***
National Red List status (2004)	Least Concern
Reasons for change	No change
Global Red List status (2008)	Least Concern
TOPS listing (NEMBA)	None
CITES listing	None
Endemic	No

*Watch-list Threat

This is a high-flying species, recorded feeding at altitudes of over 500 m (Fenton & Griffin 1997).

Taxonomy

Taphozous mauritianus Geoffroy 1818

ANIMALIA - CHORDATA - MAMMALIA - CHIROPTERA - EMBALLONURIDAE - *Taphozous* - *mauritianus*

Common names: Mauritian Tomb Bat, Taphozous Bat of Mauritius, Tomb Bat (English), Witlyfvlermuis (Afrikaans)

Taxonomic status: Species

Taxonomic notes: None

Assessment Rationale

Listed as Least Concern in view of its wide distribution (extent of occurrence in the assessment region alone is 786,956 km^2), its tolerance of a broad range of habitats (including built-up areas for roost sites and foraging), its presumed large population, its occurrence in several protected areas and because it is unlikely to be declining fast enough to qualify for listing in a more threatened category. However, due to its open-air foraging, it may potentially be negatively impacted by wind farm developments in certain areas and this emerging threat should be monitored.

Regional population effects: This species range is well connected between the assessment region and neighbouring countries and thus we assume rescue effects are possible.

Distribution

Taphozous mauritianus is widespread in the eastern and northern parts of sub-Saharan Africa, occurring from the Western and Eastern Cape, where it is known from just two localities, through KwaZulu-Natal, Swaziland and northern South Africa, to Zimbabwe, Zambia, Malawi, central Mozambique, Democratic Republic of the Congo and western Angola (Monadjem et al. 2010). Specimens have also been collected and photographed in Namibia (Monadjem et al. 2010). The ecological niche model suggests that this species could occur across a large portion of southern Mozambique, from where it has not yet been recorded; and, similarly, while some records from the Western Cape are unverified (for example, a citizen science record from 2014 on a farm near Darling – the most westerly record; Figure 1), with known records extending as far south as De Hoop Nature Reserve, the model predicts suitable habitat to extend up the west coast (Monadjem et al. 2010). Additionally, an isolated record from Hartswater, Northern Cape Province suggests a wider distribution than presently known (Erasmus & Rautenbach 1984). Regardless, Mauritian Tomb Bats are very scarce in the extreme south of its range. The extent of occurrence has been estimated at 786,956 km^2, while the number of locations is between 30 and 100 within the assessment region.

Population

The Mauritian Tomb Bat is fairly common and conspicuous, roosting under covering vegetation on the outer bark of trees or on the outer walls of buildings under the eaves of roofs. Females roost in small colonies of 2–5 (up to 30) individuals (Taylor 1998, 2000), while males generally roost singly and separately from the females.

Current population trend: Unknown, but suspected to be 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: 30–100

Severely fragmented: No

Habitats and Ecology

The species occurs in a variety of savannah woodlands, preferring open habitats and avoiding closed forest interior as well as the arid savannahs of the Kalahari, possibly owing to a dependence on surface water (Dengis 1996;

Recommended citation: Monadjem A, Jacobs D, MacEwan K, Cohen L, Richards L, Schoeman C, Sethusa T, Taylor P. 2016. A conservation assessment of *Taphozous mauritianus*. 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.

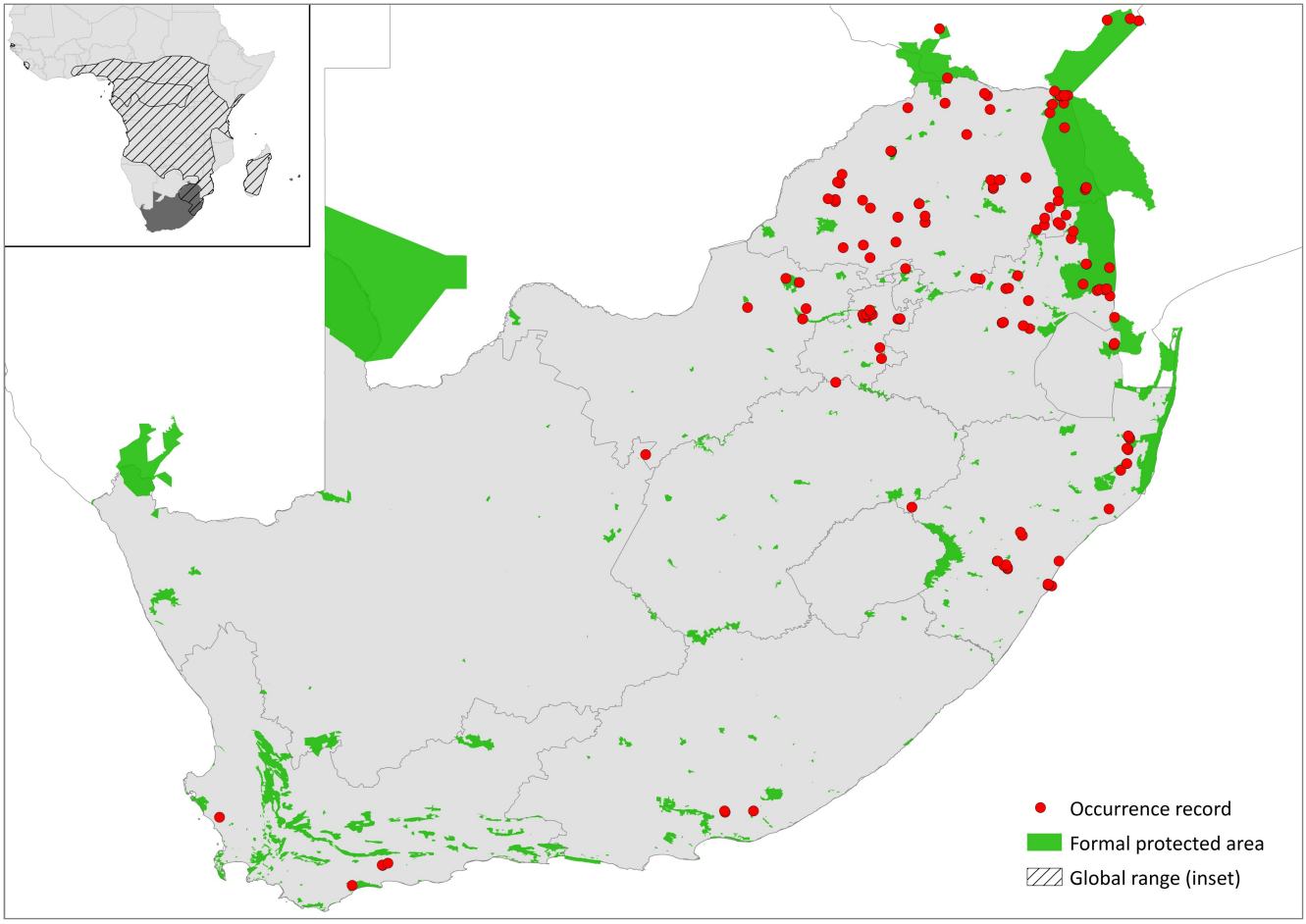

Figure 1. Distribution records for Mauritian Tomb Bat (*Taphozous mauritianus*) within the assessment region

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

Skinner & Chimimba 2005; Monadjem et al. 2010). It is often found in built-up areas, roosting under the eaves of houses, particularly face-brick houses (Dengis 1996; Taylor 2000). Roost sites also include cliff walls with overhanging rock shelves and trunks of large trees (Dengis 1996), where it rests its belly on the surface of the roost with its head facing down (Photo 1). Favoured roost sites are usually in shade, where the grizzled dorsal pelage camouflages them (Fenton 1992). If disturbed, they quickly move sideways, crab-like, to take cover or fly off and alight on a nearby tree, clambering around it out of sight (Skinner & Chimimba 2005). In the assessment region, the species occurs in a wide range of vegetation types, having been recorded from Mopane, Lowveld, Central Bushveld, Mesic Highveld Grassland, Drakensberg Grassland, Sub-Escarpment Savanna, Sub-Escarpment Grassland, Indian Ocean Coastal Belt, East Coast Renosterveld, Eastern Kalahari Bushveld, Upper Karoo, South Coast Fynbos and Lower Karoo bioregions.

It is an open-air forager. Fenton and Griffin (1997) revealed, using bat detectors suspended on helium balloons, that six species of molossids and *Taphozous mauritianus* feed at over 500 m above ground. Its diet includes aerial insects such as Lepidoptera, Isoptera and Coleoptera (Schoeman 2006).

Ecosystem and cultural services: None recorded.

Use and Trade

This species may be hunted for subsistence purposes in some areas (Hutson et al. 2008), but it is uncertain

Photo 1. Mauritian Tomb Bat (*Taphozous mauritianus*) roosting within a thatched roof (Wendy White)

Table 2. Threats to the Mauritian Tomb Bat (*Taphozous mauritianus*) 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	*3.3 Renewable Energy*: mortality from collision with wind turbine blades.	-	Anecdotal	-	Increasing
2	*9.3.3 Herbicides & Pesticides*: incidental poisoning. Current stress *1.3 Indirect Ecosystem Effects*: loss of insect prey base.	-	Anecdotal	-	Unknown

whether this is occurring or significant within the assessment region.

Threats

Overall, this species is not significantly threatened. They can use man-made structures and exotic vegetation for roost sites, but insecticides could result in localised declines (Friedmann & Daly 2004). However, with wind energy developments spreading to the eastern parts of the country, combined with the open-air foraging behaviour of *T. mauritianus*, fatalities by wind turbines are a potential emerging threat.

Current habitat trend: Stable. They can inhabit modified landscapes, even using light pollution from stadiums to forage more effectively (Schoeman 2015).

Conservation

In the assessment region, the species is recorded from many protected areas: Kruger National Park, Baobab Tree Reserve, Wonderkop Nature Reserve, D'nyala Nature Reserve, Witvinger Nature Reserve, Hans Merensky Nature Reserve, Pilanesberg National Park, Nylsvley Nature Reserve, Sterkspruit Nature Reserve, Sterkspruit Nature Reserve, Magaliesburg Protected Nature Environment, De Hoop Nature Reserve, Isimangaliso Wetland Park and Ukahlamba Drakensberg World Heritage Site. No direct conservation interventions are necessary at present. However, the impact of wind farming should be monitored to determine potential population decline.

Recommendations for land managers and practitioners:

- Reduce pesticide use in agricultural landscapes.

Research priorities:

- Monitoring mortalities linked with wind farm operations and assessing impact on the population.
- Field surveys to more accurately delimit its distribution in the southern parts of its range.

Encouraged citizen actions:

- As this is an easily identifiable species, reported sightings on virtual museum platforms (for example, iSpot and MammalMAP) will help to improve its distribution map.

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Data Sources and Quality

Table 3. Information and interpretation qualifiers for the Mauritian Tomb Bat (*Taphozous mauritianus*) assessment

Data sources	Museum records, field study (unpublished)
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.*

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