Scotophilus leucogaster – White-bellied House Bat


Ara Monadjem

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

*Watch-list Data

Pending further molecular research, the subspecies *Scotophilus leucogaster damarensis* may be elevated to full species status, rendering it a southern African endemic (Monadjem et al. 2010).

Taxonomy

Scotophilus leucogaster (Cretzschmar 1826)

ANIMALIA - CHORDATA - MAMMALIA - CHIROPTERA - VESPERTILIONIDAE - *Scotophilus* - *leucogaster*

Common names: White-bellied House Bat, White-bellied Yellow Bat, Yellow Bat, Cretzschmar's Brown Bat (English)

Taxonomic status: Species

Taxonomic notes: The entire genus needs revision. The relationship between *Scotophilus viridis* and *S. leucogaster* is difficult to discern in the field, although Robbins et al. (1985) concluded that they represent two distinct species, and is supported by Jacobs et al. (2006), whereas Meester et al. (1986) treated them as conspecific. Robbins et al. (1985) considered white-bellied specimens from Namibia *(damarensis)* to be conspecific with populations of *leucogaster* from other parts of Africa. Additionally, the bats identified as *S. leucogaster* by Robbins et al. (1985) show a discontinuous African distribution, mostly absent from between 5°N and 12°S. This evidence suggests that the southern population is phylogenetically distinct, which would render *S. damarensis* specifically distinct as a southern African endemic (Monadjem et al. 2010). Further taxonomic resolution is required.

Assessment Rationale

Listed as Least Concern as this species, although sparsely distributed, is found in a large protected area (Kruger National Park) in northeastern South Africa and inhabits savannah habitats, which are unlikely to decline significantly within the assessment region. Although it occurs in a limited number of localities within the assessment region, there are no plausible threats and thus Vulnerable D2 does not apply. Further field surveys and vetting of distribution records should be undertaken to improve the accuracy of its range map within the region. Additionally, should molecular research reveal *S. damarensis* to be a distinct species, a reassessment will be necessary.

Regional population effects: It is uncertain whether rescue effects are possible due to the discontinuity of its distribution in southern Africa. Further research on its dispersal capacity and connectedness is necessary. However, since it occurs in the Greater Limpopo Transfrontier Park and its habitat is thus connected to Mozambique and Zimbabwe (Monadjem et al. 2010), we assume rescue effects are possible.

Distribution

The White-bellied House Bat is widely distributed north of 5°N but sparsely and discontinuously distributed in the central savannahs of southern Africa, occurring in northern South Africa, southern Mozambique, and southern Zimbabwe, with a separate population in northern Zimbabwe, central Mozambique and southern Zambia, extending west to northern Botswana and Namibia, with an isolated record from central Angola (Monadjem et al. 2010). Habitat models suggest it might be more widespread in southern Africa than currently recorded (Monadjem et al. 2010), but there is also uncertainty about the validity of its range in southern Africa (encompassing Zambia, Botswana, South Africa and Angola). As such, further molecular research is needed to delimit its range more accurately. Within the assessment region, it occurs in Kruger National Park (KNP) in Limpopo Province. Specimens from Punda Maria (KNP) include large and small animals as well as specimens with both yellow and no yellow in their ventral pelage, which necessitates re-examination of the specimens to determine whether they correspond to either *S. leucogaster* or *S. viridis* (Monadjem et al. 2010). The type specimen for the subspecies *S. l. damarensis* is from northern Namibia (Monadjem et al. 2010).

Population

Little information is available on the population abundance or size of this species across its range, but is presumably uncommon. This species is not well represented in

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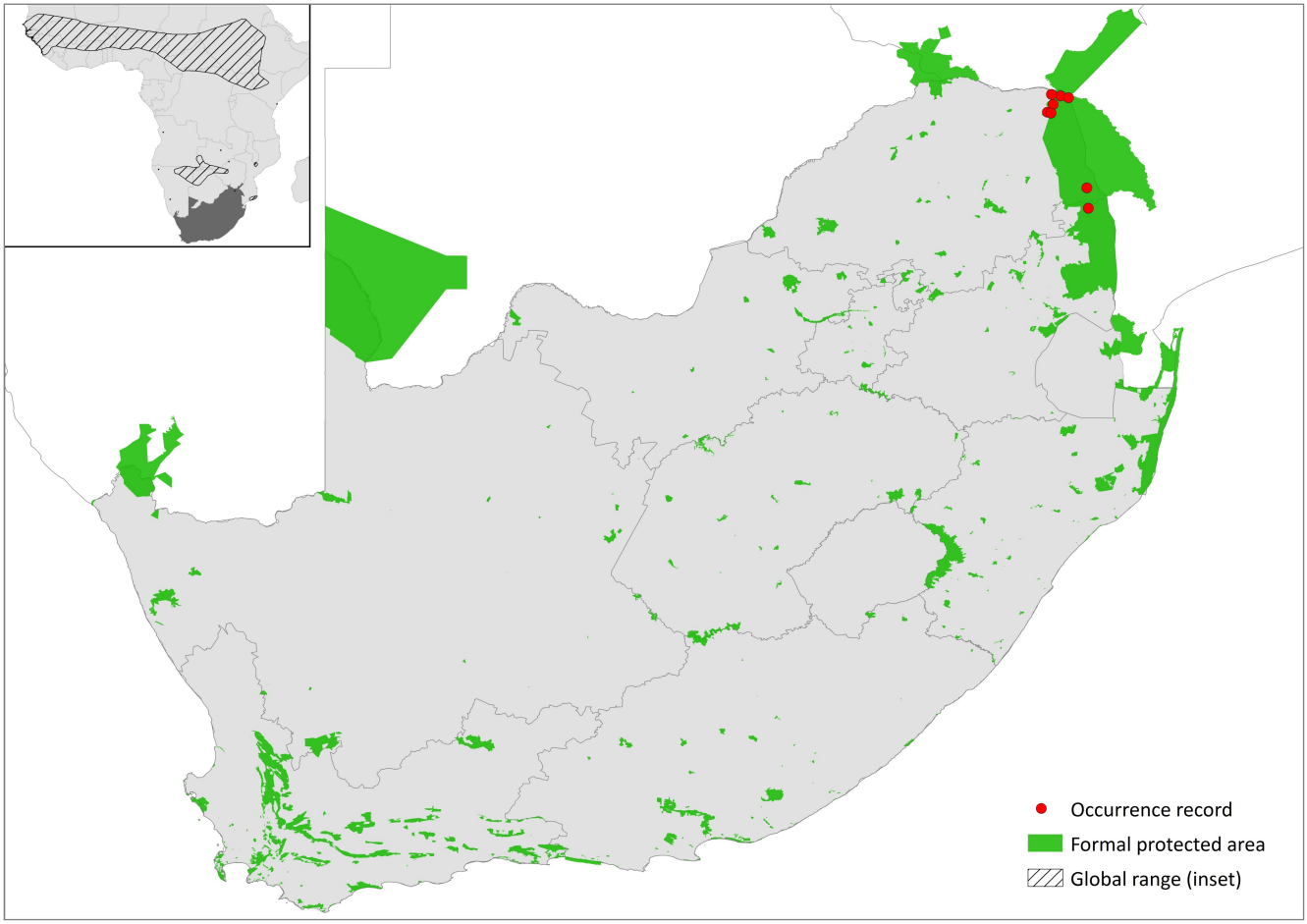

Figure 1. Distribution records for White-belled House Bat (*Scotophilus leucogaster*) within the assessment region

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

museums, with only 46 records examined in Monadjem et al. (2010), which is due to its more restricted distribution compared with *S. dinganii*.

Current population trend: Stable

Continuing decline in mature individuals: No

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

This species has been recorded from both dry and moist savannah habitats. During the day, they roost in a variety of shelters, including holes in trees (Fenton 1983), such as Mopane (*Colophospermum mopane*) (Monadjem et al. 2010), gaps under bark, and roofs of houses. Roost sites may be changed regularly (Fenton et al. 1985). This species has a strong association with cathedral mopane woodland, especially in the Limpopo, Sebungwe and Zambezi basins of Zimbabwe, where it is often the most abundant microbat (Fenton 1985). At Sengwa Wildlife Research Station, Zimbabwe, the diet of *Scotophilus leucogaster* comprised mainly Hemiptera and Coleoptera, with Hymenoptera, Homoptera, Orthoptera, Lepidoptera and Diptera present in small numbers (Barclay 1985). Individuals foraged primarily over floodplains for an average of less than one hour at dusk and spent the rest of the night in small tree-cavity roosts (Barclay 1985).

Ecosystem and cultural services: None known

Use and Trade

This species is not known to be traded or utilised in any form.

Threats

There appear to be no major threats to this species as a whole. Similarly, no threats to the South African population have been identified.

Current habitat trend: Stable. The Savannah Biome is not threatened in the assessment region (Driver et al. 2012).

Conservation

This species occurs in Kruger National Park in the north of the assessment region. No direct conservation interventions are necessary at present.

Research priorities:

- Taxonomic resolution through molecular and morphometric research.
- Field surveys delimiting geographical distribution and habitat preferences.
- Quantification of threats potentially facing this species.

Encouraged citizen actions:

- Deposit any dead specimens to the Durban Natural Science Museum or Ditsong Museum of Natural History.

References

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Data Sources and Quality

Table 2. Information and interpretation qualifiers for the White-belled House Bat (*Scotophilus leucogaster*) assessment

Data sources	Field study (unpublished)
Data quality (max)	Inferred
Data quality (min)	Suspected
Uncertainty resolution	Expert consensus
Risk tolerance	Evidentiary

Assessors and Reviewers

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