Neoromicia cf. *melckorum* – Melck's Serotine Bat

Photograph wanted

Regional Red List status (2016)	**Least Concern**
National Red List status (2004)	Not Evaluated
Reasons for change	Non-genuine
Global Red List status (2008)	Data Deficient
TOPS listing (NEMBA) (2007)	None
CITES listing	None
Endemic	Edge of range

This species has largely been synonymised with *Neoromica capensis* within the assessment region, but the northern population (including specimens from Kruger National Park) form part of a species awaiting formal naming (Happold 2013).

Taxonomy

Neoromicia melckorum (auctorum non Roberts 1919)

ANIMALIA - CHORDATA - MAMMALIA - CHIROPTERA - VESPERTILIONIDAE - *Neoromicia* - *melckorum*

Synonyms: *Eptesicus melckorum* Roberts 1919, *Pipistrellus melckorum* (Roberts 1919)

Common names: Melck's Serotine Bat, Kruger Serotine, Melck's House Bat, Melck's Pipistrelle Bat (English), Melck se Dakvlermuis (Afrikaans)

Taxonomic status: Species

Taxonomic notes: The Cape specimens are now considered synonymous with *Neoromicia capensis* based on morphometric and genetic evidence (Thorn 1988; Rautenbach et al. 1993; Kearney 2005). While specimens from the type locality (Kersefontein Farm in the Western Cape Province) are morphologically and karyotypically indistinguishable from *N. capensis*, specimens from the Kruger National Park have a unique karyotype and agree with the original description of *melckorum* (Rautenbach et al. 1993; Kearney et al. 2002). These specimens have been named cf. *melckorum* pending renaming (Happold 2013). Specimens from this northern population have been referred to varyingly as *Eptesicus* (*Neoromicia*) *melckorum* (Koopman 1993), *Pipistrellus* (*Neoromicia*) *melckorum* (Hill & Harrison 1987) and as *Neoromicia melckorum* (Simmons 2005). Further molecular research is needed to resolve its taxonomic relationship with several other species (Monadjem et al. 2010).

Assessment Rationale

While *N. melckorum* was previously considered distinct from *N. capensis*, recent research reveals that the Western Cape specimens are conspecific with *N. capensis*, and that only the Kruger National Park population is distinct on a chromosomal level, which is provisionally called *N.* cf. *melckorum* pending formal naming. While this species qualifies as Vulnerable D2 based on only one location, there are no plausible threats because it exists inside a protected area at the edge of its range. Thus, we list here as Least Concern. It was Not Evaluated in the previous assessment as it was considered a vagrant. However, we list it here to highlight the need for further research and clarity. Taxonomic resolution is required and more accurate delimitation of its range and ecology through field surveys is recommended.

Regional population effects: This species appears to be widely but sparsely distributed in Zimbabwe, Botswana, Zambia and Malawi with connected habitat between these regions and the assessment region through the Great Limpopo Transfrontier Park. However, wing loading is very low (M. Happold unpubl. data), so rescue effects are uncertain.

Distribution

Recorded from scattered localities in woodland and bushland habitats in Tanzania, Zambia, Malawi, Zimbabwe, Mozambique and South Africa (see references in Happold 2013). It seems likely that the Zimbabwe specimens reported by Cotterill (1996) represent this species. Overall, its distribution is unclear because of taxonomic confusion with *N. capensis*. Its distribution beyond southern Africa is unknown (Monadjem et al. 2010). Within the assessment region, its presence has only been confirmed from Pafuri, Kruger National Park.

Population

It appears to be uncommon. For example, it has been rarely recorded in Malawi (Happold 2013). Population size and trends are uncertain due to taxonomic uncertainties.

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

Recommended citation: Taylor PJ, Jacobs DS, Cohen L, MacEwan K, Richards LR, Schoeman C, Sethusa T, Monadjem A. 2016. A conservation assessment of *Neoromicia* cf. *melckorum*. 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.

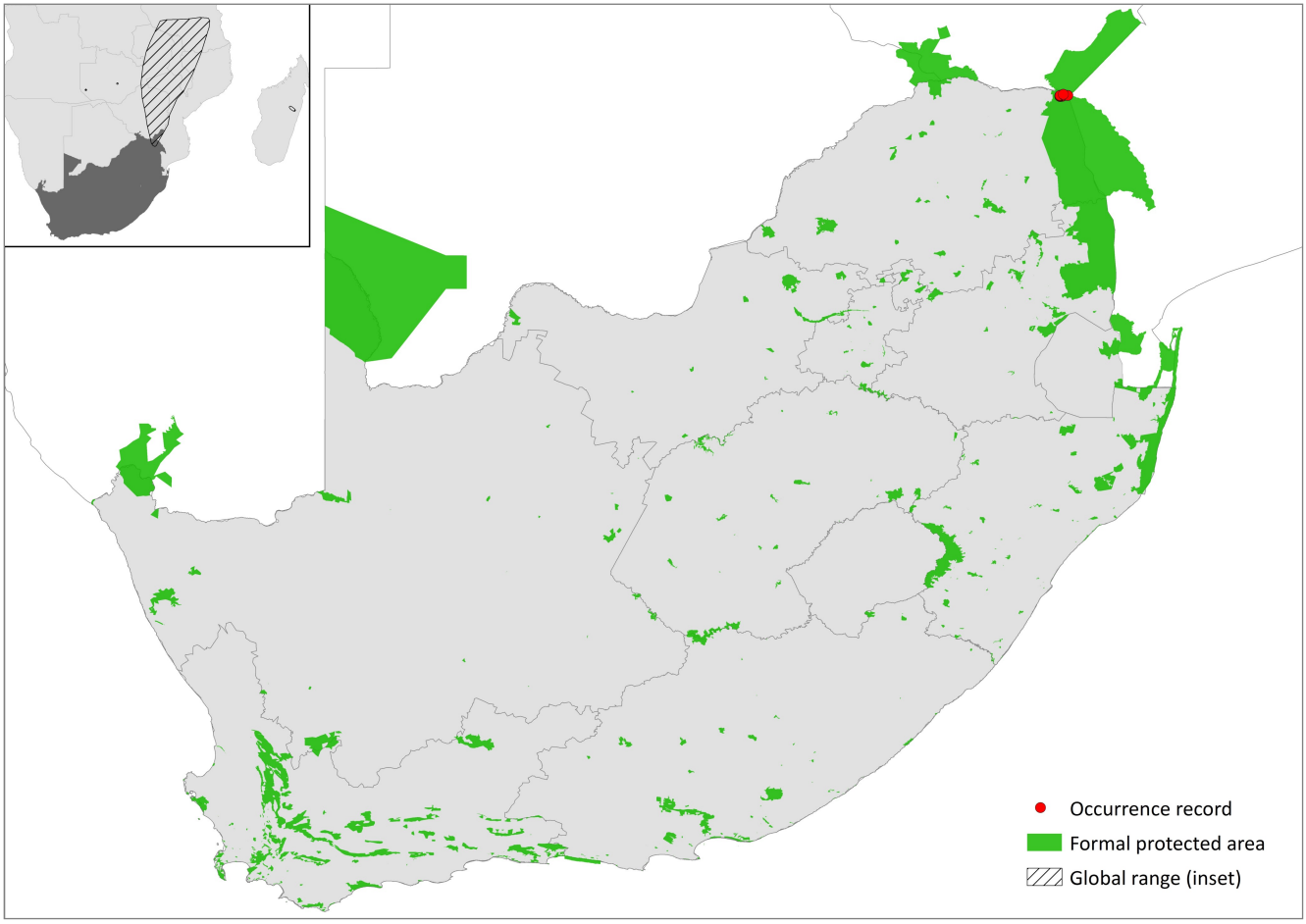

Figure 1. Distribution records for Melck's House Bat (*Neoromicia* cf. *melckorum*) within the assessment region

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

Number of subpopulations: One

Severely fragmented: No

Habitats and Ecology

In general, there is little information on habitat requirements or roost site selection for this species (Monadjem et al. 2010). However, it occurs in both dry and moist woodlands (including miombo) and riparian forests. It has not been recorded from arid or montane areas (Happold et al. 1987). It has been recorded roosting under the roofs of buildings and a single animal has been recorded under the bark of a poplar tree (Herselman & Norton 1985). Its diet consists of Coleoptera, Hemiptera, Diptera, and Lepidoptera (Aldridge & Rautenbach 1987).

Ecosystem and cultural services: Unknown

Use and Trade

Not known to be traded or utilised in any form.

Threats

The threats to this species are unknown, but presumably insignificant due to its occurrence in a well-managed transfrontier park. In Madagascar, it has been recorded from degraded or modified habitats (ACR 2015).

Current habitat trend: Stable. This species occurs exclusively in the Great Limpopo Transfrontier Park. The Savannah Biome is well protected within the assessment region (Driver et al. 2012).

Conservation

Occurs exclusively in the Great Limpopo Transfrontier Park within the assessment region. No conservation interventions are necessary at present.

Research priorities:

- Further studies are needed to resolve the taxonomic status of this species, and to better determine the species distribution, habitat requirements and any potential threats.

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Data Sources and Quality

Table 2. Information and interpretation qualifiers for the Melck's House Bat (*Neoromicia* cf. *melckorum*) assessment

Data sources	Indirect information (literature, expert knowledge), museum records
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.*