Graphiurus microtis – Small-eared Dormouse


Cliff Dorse

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

Some populations of *G. microtis* have such distinctive morphologies that future research into the taxonomy of this species may reveal additional distinct species (Holden 2013).

Taxonomy

Graphiurus microtis (Noack 1887)

ANIMALIA - CHORDATA - MAMMALIA - RODENTIA - GLIRIDAE - *Graphiurus* - *microtis*

Synonyms: *albolineata*, *butleri*, *etoschae*, *griselda*, *littoralis*, *marrensis*, *smithii*, *streethii*, *streeteri*, *sudanensis*, *tzaneenensis*, *vandami*

Common names: Small-eared Dormouse, Large Savannah African Dormouse, Noack's African Dormouse (English)

Taxonomic status: Species

Taxonomic notes: The phylogenetic relationships of this genus require urgent clarification (Monadjem et al. 2015). *Graphiurus microtis* was previously included as a synonym or valid subspecies of *G. murinus* (Skinner & Chimimba 2005; Holden 2013), but based on morphological and ecological differences, Holden (1993, 2005) classified this as a distinct species. Although these species are not easily distinguished, the dorsal and ventral pelage of *G. murinus* is not noticeably defined and *G. murinus* typically occurs in montane or temperate grassland habitats (Monadjem et al. 2015), while *G. microtis* favours savannah regions (Holden 2013).

Assessment Rationale

This species is listed as Least Concern because of its wide extent of occurrence (> 60,000 km^2) and presumed large population, and because it is unlikely to be declining fast enough to qualify for listing in a more threatened category. It occurs in a number of protected areas within the assessment region, and can tolerate minor habitat modification. Furthermore, because its habitat with the rest of its African range is largely contiguous, dispersal is possible. Although there are no current (post-2000) records for this species, this is due to lack of sampling effort and specimen confusion (with *G. murinus*) rather than genuine scarcity. Many museum records for this species need vetting and processing through molecular techniques.

Regional population effects: Its distribution is continuous, so a rescue effect is possible where continuous woodland occurs across provincial boundaries.

Distribution

This species is widely distributed in sub-Saharan Africa, from southern Sudan, Eritrea and Ethiopia, through East Africa and parts of eastern Central Africa, to Angola and northeastern South Africa (Figure 1). It is apparently absent from West Africa (Monadjem et al. 2015). There are no recent (post-2000) records for this species in the assessment region, thus further field surveys are urgently required. Additionally, DNA studies on museum specimens are essential, as there is a possibility that records of this species have been confused as *G. murinus* (*sensu* Monadjem et al. 2015).

Population

It is considered a common species throughout Africa due to the large number of museum specimens throughout its range (Holden 2013). Within the assessment region, the species appears to have a limited area of occupancy, but this is due to a lack of current sampling effort rather than a genuine rarity. Although it has been recorded in low numbers in Mpumalanga, Limpopo and North West provinces, it may be a fairly common species in the northern parts of South Africa, particularly within the Soutpansberg area. There are many records in museum collections that are waiting to be identified, and there are expected to be a number of museum records that have been incorrectly identified as *G. murinus*.

Current population trend: Unknown

Continuing decline in mature individuals: Unknown

Number of mature individuals in population: Unknown

Number of mature individuals in largest subpopulation: Unknown

Recommended citation: MacFadyen D, Baxter RM, Child MF. 2016. A conservation assessment of *Graphiurus microtis*. 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.

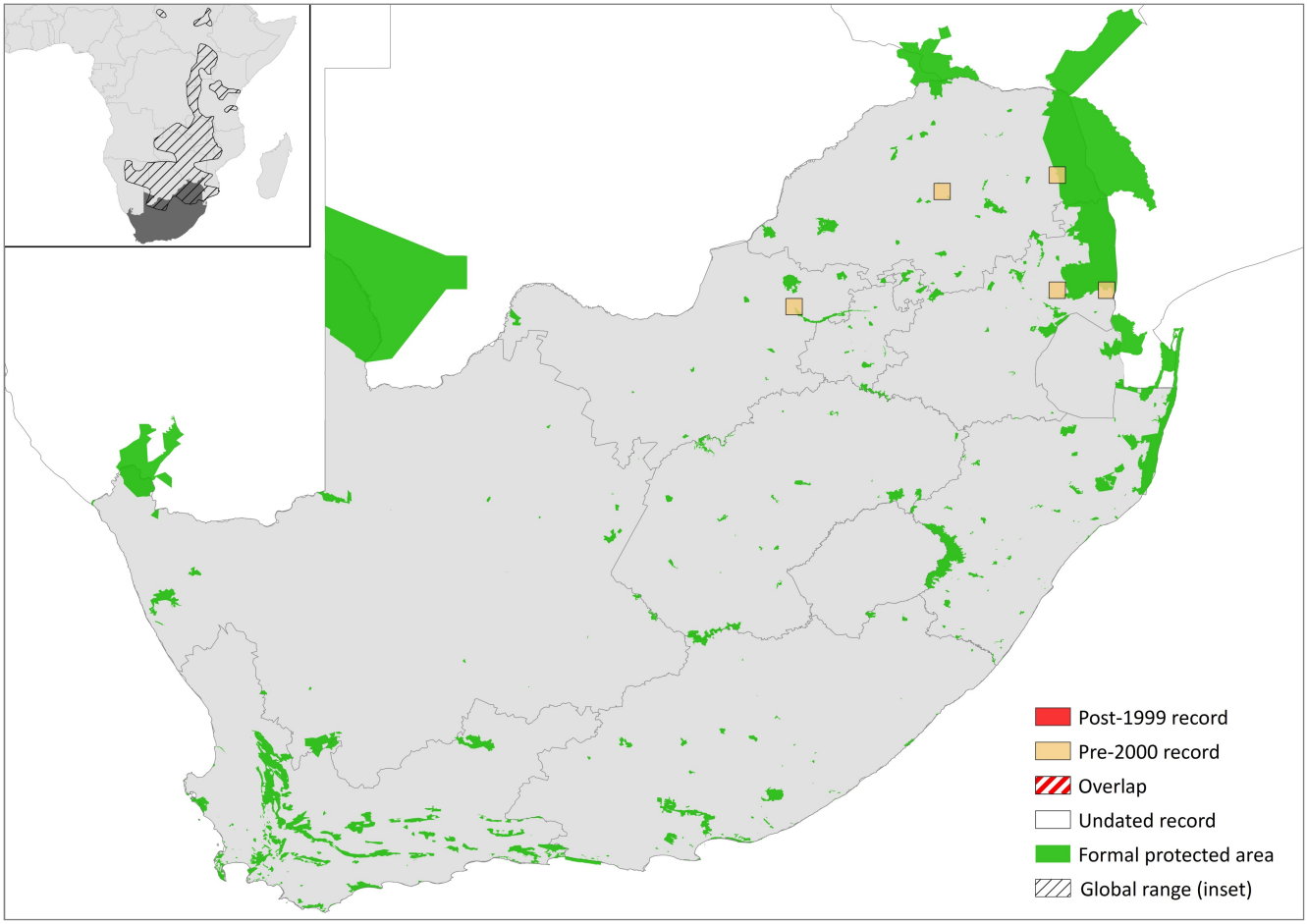

Figure 1. Distribution records for Small-eared Dormouse (*Graphiurus microtis*) within the assessment region

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	Presence uncertain	Native
Zimbabwe	Extant	Native

Number of subpopulations: Unknown

Severely fragmented: No

Habitats and Ecology

This species is widespread across a range of savannah and woodland habitats, as well as within rocky areas, caves and disturbed areas (Holden 2013). It is commensal with people and occurs in human dwellings in the north of South Africa where it is considered a widespread species. This species split from *G. murinus* is based on geographical and biome differences. Aside from some overlap in certain areas, *G. murinus* generally favours grassland habitats, while *G. microtis* prefers savannah regions (Holden 2013).

Ecosystem and cultural services: Similar to other small mammals, this species is likely prey for small carnivores and aerial predators. Additionally, this species may be consumed opportunistically by humans in rural communities.

Use and Trade

Although there are no reports of this species being traded or utilised in any form, it has the potential to be utilised in the pet trade. Additionally, this species may be opportunistically eaten in rural communities.

Threats

There are no identified major threats. However, it is potentially locally threatened by disturbance and habitat loss in woodland areas through agriculture and mining.

Current habitat trend: Stable. Savannah habitats are not under threat in the assessment region (Driver et al. 2012).

Conservation

This species occurs in several protected areas within the assessment region, including Kruger National Park (KNP). In addition to KNP, Venetia Limpopo Nature Reserve and the Greater Mapungubwe Transfrontier Conservation Area contain suitable habitat for this species, but its presence within these protected areas requires confirmation. DNA testing is required for all museum specimens currently labelled as *G. murinus*. This species would benefit from the expansion of protected areas to connect isolated savannah woodland habitats. However, no direct interventions are necessary.

Table 2. Threats to the Small-eared Dormouse (*Graphiurus microtis*) 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	*2.1 Annual & Perennial Non-Timber Crops* and *2.2 Wood & Pulp Plantations*: habitat loss and disturbance.	-	Anecdotal	-	-
2	*3.2 Mining & Quarrying*: habitat loss and disturbance.	-	Anecdotal	-	-

Table 3. Conservation interventions for the Small-eared Dormouse (*Graphiurus microtis*) 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	*1.1 Site/Area Protection*: protected area expansion to connect suitable habitats through corridors.	-	Anecdotal	-	-	-

Recommendations for land managers and practitioners:

- Protect areas with sufficient woodland, maintaining corridors between areas of suitable habitat.

Research priorities:

- Continued research is required to investigate the taxonomy of *G. murinus* and *G. microtis*.
- Distribution range and connectivity of the species.
- Museum records of *G. microtis* and *G. murinus* require clarification across the country.

Encouraged citizen actions:

- Report sightings on virtual museum platforms (for example, iSpot and MammalMAP), especially outside protected areas.
- Maintain corridors of woodland between natural areas.

References

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Skinner JD, Chimimba CT. 2005. The Mammals of the Southern African Subregion. Third edition. Cambridge University Press, Cambridge, UK.

Data Sources and Quality

Table 4. Information and interpretation qualifiers for the Small-eared Dormouse (*Graphiurus microtis*) assessment

Data sources	Museum records, indirect information (literature, expert knowledge)
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.*