Thallomys shortridgei – Shortridge's Rat

Photograph

wanted

Regional Red List status (2016)	Data Deficient
National Red List status (2004)	Not Evaluated
Reasons for change	Non-genuine change: Taxonomic revision
Global Red List status (2008)	Data Deficient
TOPS listing (NEMBA) (2007)	None
CITES listing	None
Endemic	Yes

Despite intensive trapping effort in and around its identified localities, this taxonomically-unresolved species remains elusive and has not been recently trapped (N. Coetzee and P. Taylor unpubl. data).

Taxonomy

Thallomys shortridgei Thomas & Hinton 1923

ANIMALIA - CHORDATA - MAMMALIA - RODENTIA - MURIDAE - *Thallomys* - *shortridgei*

Common names: Shortridge's Rat, Shortridge's Acacia Rat, Shortridge's Thallomys (English)

Taxonomic status: Species

Taxonomic notes: The taxonomic status of this poorly known species requires further molecular examination and morphometric analysis of specimens (Monadjem et al. 2015). It has previously been included within *T. paedulcus* and *T. nigricauda* (Ellerman et al. 1953). While it is currently recognised as a distinct species (Bronner et al. 2003; Musser & Carleton 2005; Skinner & Chimimba 2005), its relationship with other species of this genus has not been fully resolved (Monadjem et al. 2015). It can be distinguished from *T. nigricauda* by its smaller bullae and indistinct black facial mask (Monadjem et al. 2015).

Assessment Rationale

Thallomys shortridgei is listed as Data Deficient due to the lack of information detailing its taxonomic status, population trends, habitat requirements and current threats. This species may qualify for Vulnerable under the B criterion as its extent of occurrence is estimated to be < 20,000 km^2. Despite recent field surveys, there are no current occurrence data, which may be a cause for concern. It is recommended that further field surveys are conducted to verify the continued existence, geographical extent and validity of the species.

Distribution

Shortridge's Rat has only been recorded in South Africa (Nel 2013), where it has been collected from the south bank of the Orange (Gariep) River in the Northern Cape. Its current recognised range extends from Upington westwards to Goodhouse (Skinner & Chimimba 2005; Nel 2013), but it has only been identified from a few dispersed localities (Monadjem et al. 2015). Although a degree of uncertainty remains, *T. shortridgei* and *T. nigricauda* are considered by some to be allopatric, with distributions divided by the Orange River (Monadjem et al. 2015). The estimated extent of occurrence using a minimum convex polygon based on existing records is 2,872 km^2.

Population

The population abundance of this species is unknown (Nel 2013). Despite intensive trapping effort in and around its identified localities, no specimens have been recently collected (N. Coetzee & P. Taylor unpubl. data).

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

Number of subpopulations: Unknown

Severely fragmented: No

Habitats and Ecology

The ecology and life history of this species has not been established. However, like other species of the *Thallomys* genus, this species is expected to be arboreal, associated with *Acacia* (now *Vachellia*) trees and similar species. Nel (2013) describes the habitat as *Acacia* thornveld and scrub. *Thallomys* species build nests in woodland tree hollows and forks (Skinner & Chimimba 2005), generally requiring older wooded trees rather than shrubs. *Thallomys* species are also known to consume the fine young leaves, twigs and green outer coatings of seedpods from these thorn trees (Skinner & Chimimba 2005), and are considered predominantly vegetarian,

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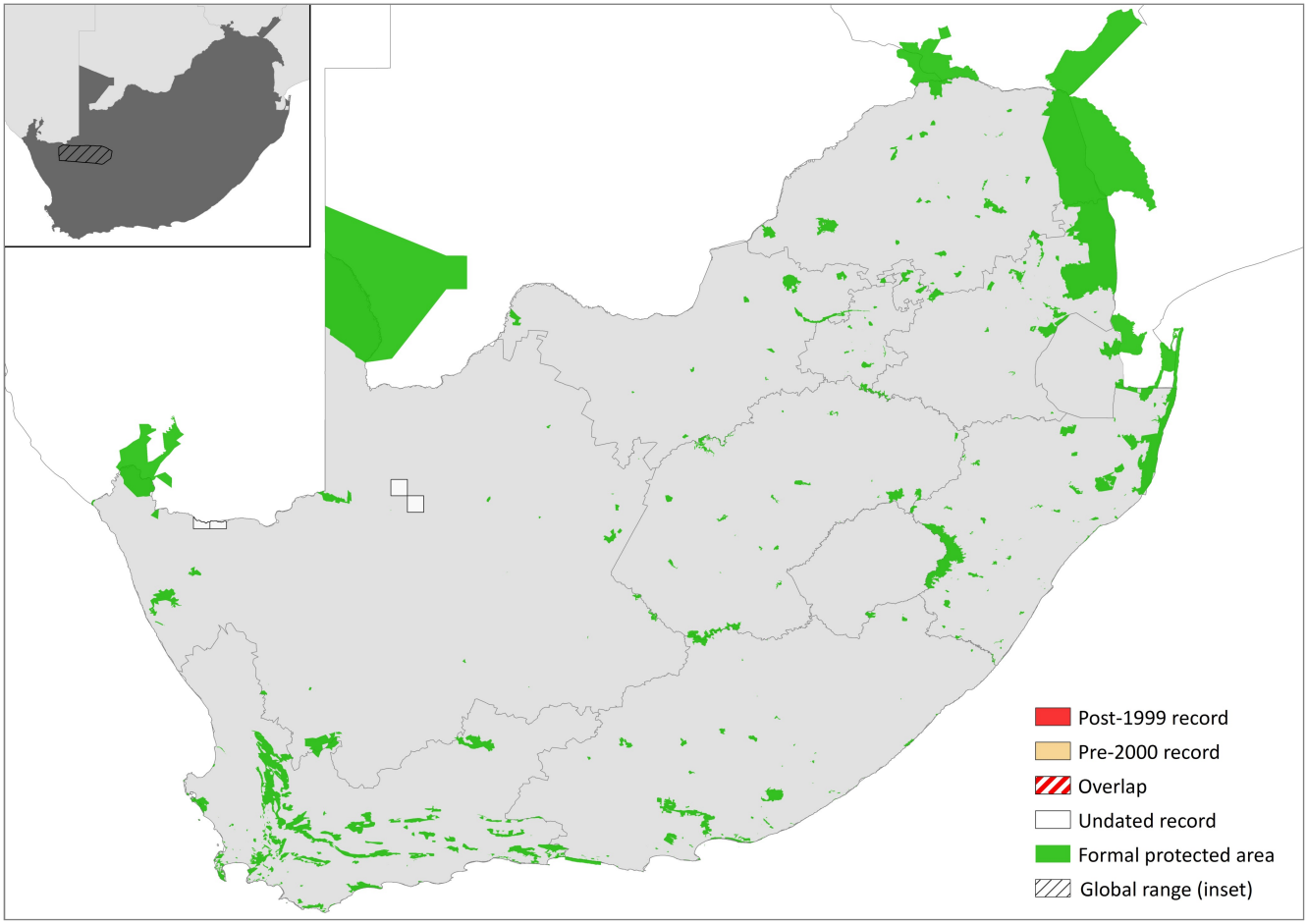

Figure 1. Distribution records for Shortridge's Rat (*Thallomys shortridgei*) within the assessment region

Table 1. Countries of occurrence within southern Africa

Country	Presence	Origin
Botswana	Absent	-
Lesotho	Absent	-
Mozambique	Absent	-
Namibia	Absent	-
South Africa	Extant	Native
Swaziland	Absent	-
Zimbabwe	Absent	-

although de Graaf (1981) did include insects in the diet of *T. nigricauda*.

Ecosystem and cultural services: No specific ecosystem or cultural services have been identified for this species.

Use and Trade

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

Threats

Generally, no threats have been identified for this species. They are, however, limited to woodland areas, and thus continued illegal harvesting of tall trees for firewood or charcoal may be causing a decline in habitat quality and quantity. However, the areas in which this species occurs may suffer less woodland loss than more densely populated parts of the country. Additionally, drought, and alterations in the rainfall regime due to climate change, threaten to alter the community structure of vegetation by favouring short-lived species over perennial plants (Milton et al. 1995), which again may threaten the habitat availability of this arboreal species.

Current habitat trend: Unknown

Table 2. Threats to the Shortridge's Rat (*Thallomys shortridgei*) 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	*5.3.3 Logging & Wood Harvesting*: logging and wood harvesting of tall trees for firewood or charcoal. Current stress *1.2 Ecosystem Degradation*.	-	Anecdotal	-	Unknown
2	*11.1 Habitat Shifting & Alteration*: climate change altering habitat suitability. Current stress *1.2 Ecosystem Degradation*.	-	Anecdotal	-	Increasing

Conservation

No specific conservation interventions have been established for *T. shortridgei*, and its presence within protected areas is unknown. Further field studies to locate additional populations are required both within its documented range, as well as within potential regions exhibiting a suitable habitat type outside of its recorded range. Additionally research into its ecology, life history traits, current threats and population dynamics are necessary in order to determine relevant and effective conservation initiatives.

Recommendations for land managers and practitioners:

- Systematic surveys needed to locate populations and gather information on population size, trend and distribution.

Research priorities:

- Field surveys to determine the basic distribution and population dynamics of this species.
- Taxonomic resolution and investigation into the basic relationships between species of this genus.

Encouraged citizen actions:

- Report sightings on virtual museum platforms (for example, iSpot and MammalMAP), especially outside protected areas.
- Landowners can preserve *Acacia* (now *Vachellia*) trees, both living and dead.

References

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Data Sources and Quality

Table 3. Information and interpretation qualifiers for the Shortridge's Rat (*Thallomys shortridgei*) assessment

Data sources	Museum records
Data quality (max)	Suspected
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.*