Thallomys shortridgei – Shortridge’s Rat

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 km². 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 Uprising 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 km².

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

Habits 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.

Thallomys shortridgei

The Red List of Mammals of South Africa, Lesotho and Swaziland

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

![Figure 1. Distribution records for Shortridge’s Rat (Thallomys shortridgei) within the assessment region](image)

**Table 1. Countries of occurrence within southern Africa**

<table>
<thead>
<tr>
<th>Country</th>
<th>Presence</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>Absent</td>
<td>-</td>
</tr>
<tr>
<td>Lesotho</td>
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<td>-</td>
</tr>
<tr>
<td>Mozambique</td>
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<td>-</td>
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<tr>
<td>Namibia</td>
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<tr>
<td>South Africa</td>
<td>Extant</td>
<td>Native</td>
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<td>Swaziland</td>
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<td>-</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Absent</td>
<td>-</td>
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**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)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Threat description</th>
<th>Evidence in the scientific literature</th>
<th>Data quality</th>
<th>Scale of study</th>
<th>Current trend</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>5.3.3 Logging &amp; Wood Harvesting: logging and wood harvesting of tall trees for firewood or charcoal. Current stress 1.2 Ecosystem Degradation.</td>
<td>-</td>
<td>Anecdotal</td>
<td></td>
<td>Unknown</td>
</tr>
<tr>
<td>2</td>
<td>11.1 Habitat Shifting &amp; Alteration: climate change altering habitat suitability. Current stress 1.2 Ecosystem Degradation.</td>
<td>-</td>
<td>Anecdotal</td>
<td></td>
<td>Increasing</td>
</tr>
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</table>
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


Data Sources and Quality

<table>
<thead>
<tr>
<th>Data sources</th>
<th>Museum records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data quality (max)</td>
<td>Suspected</td>
</tr>
<tr>
<td>Data quality (min)</td>
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<tr>
<td>Uncertainty resolution</td>
<td>Expert consensus</td>
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<td>Risk tolerance</td>
<td>Evidentiary</td>
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</table>

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