Grammomys dolichurus – Woodland Thicket Rat


Bernard Dupont

Regional Red List status (2016)	**Least Concern**
National Red List status (2004)	Data Deficient
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

With a long tail for balance, and a lengthened fifth digit on each hindfoot, the Woodland Thicket Rat is an agile climber, well adapted to an arboreal lifestyle (Happold 2013).

Taxonomy

Grammomys dolichurus (Smuts 1832)

ANIMALIA - CHORDATA - MAMMALIA - RODENTIA - MURIDAE - *Grammomys* - *dolichurus*

Synonyms: *angolensis*, *arborarius*, *baliolus*, *discolor*, *elgonis*, *insignis*, *littoralis*, *polionops*, *surdaster*, *tongensis*

Common names: Woodland Thicket Rat, Forest Mouse, Woodland Mouse (English), Woudmuis, Bosmuis (Afrikaans)

Taxonomic status: Species complex

Taxonomic notes: This is a species complex as populations in the northern parts of the distribution may correspond to a distinct species, namely *Grammomys surdaster* (Musser & Carleton 1993). The characteristics delineating *G. dolichurus* from *G. cometes* and *G. ibeanus* appear unreliable, especially where these species occur sympatrically (Skinner & Chimimba 2005) and therefore they are easily confused (Happold 2013). However, on average *G. dolichurus* is smaller (skull length < 31 mm) and does not have a white postauricular patch (present on *G. cometes* and *G. ibeanus*). In spite of their close genetic and morphological proximity, *G. cometes* and *G. dolichurus* tend toward ecological segregation and behave as distinct biological species (Kryštufek et al. 2008).

Assessment Rationale

The Woodland Thicket Rat is listed as Least Concern in view of its wide distribution within the assessment region, tolerance of a broad range of habitats, presumed stable population, and because its habitat is continuous with the rest of its African range. Rescue effects are possible and there are no major threats that could cause population decline at present. However, this species may comprise several cryptic species and ongoing taxonomic resolution will enable a more accurate reassessment.

Regional population effects: Possible through dispersal from Mozambique in Great Limpopo Transfrontier Park and northern KwaZulu-Natal.

Distribution

This species ranges from southern Ethiopia and southern Sudan, southwards through much of East Africa to the eastern parts of South Africa. It also ranges eastwards from Angola to Mozambique. Within the assessment region, Woodland Thicket Rats are present in northeastern Limpopo Province, widely in KwaZulu-Natal and southwestwards along the Eastern Cape coastline (Monadjem et al. 2015). Additionally, they are found in Swaziland around the Maguga Dam area, but to date the specimens sampled there are the only records of the species in Swaziland (Avenant & Kuyler 2002).

Population

The Woodland Thicket Rat is a common species and has a continuous distribution within the assessment region. Furthermore, it can thrive in agricultural and urban areas, so we suspect the population is stable or increasing. However, this species often comprises only a small proportion of the small mammals surveyed at sites, for example 3.7% in Afromontane forests in KwaZulu-Natal (Wirminghaus & Perrin 1993) and 1.5% in sand forests in KwaZulu-Natal (Glencros et al. 2015). In Karkloof Forest, annual fluctuations in population abundance of *G. dolichurus* was lower than for terrestrial rodents, such as *Rhabdomys pumilio*, *Mastomys natalensis* and *Myosorex varius* (Wirminghaus & Perrin 1993). It had a low, but stable mean density of 1.1 animals / ha in an Afromontane forest of South Africa (Wirminghaus & Perrin 1993).

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

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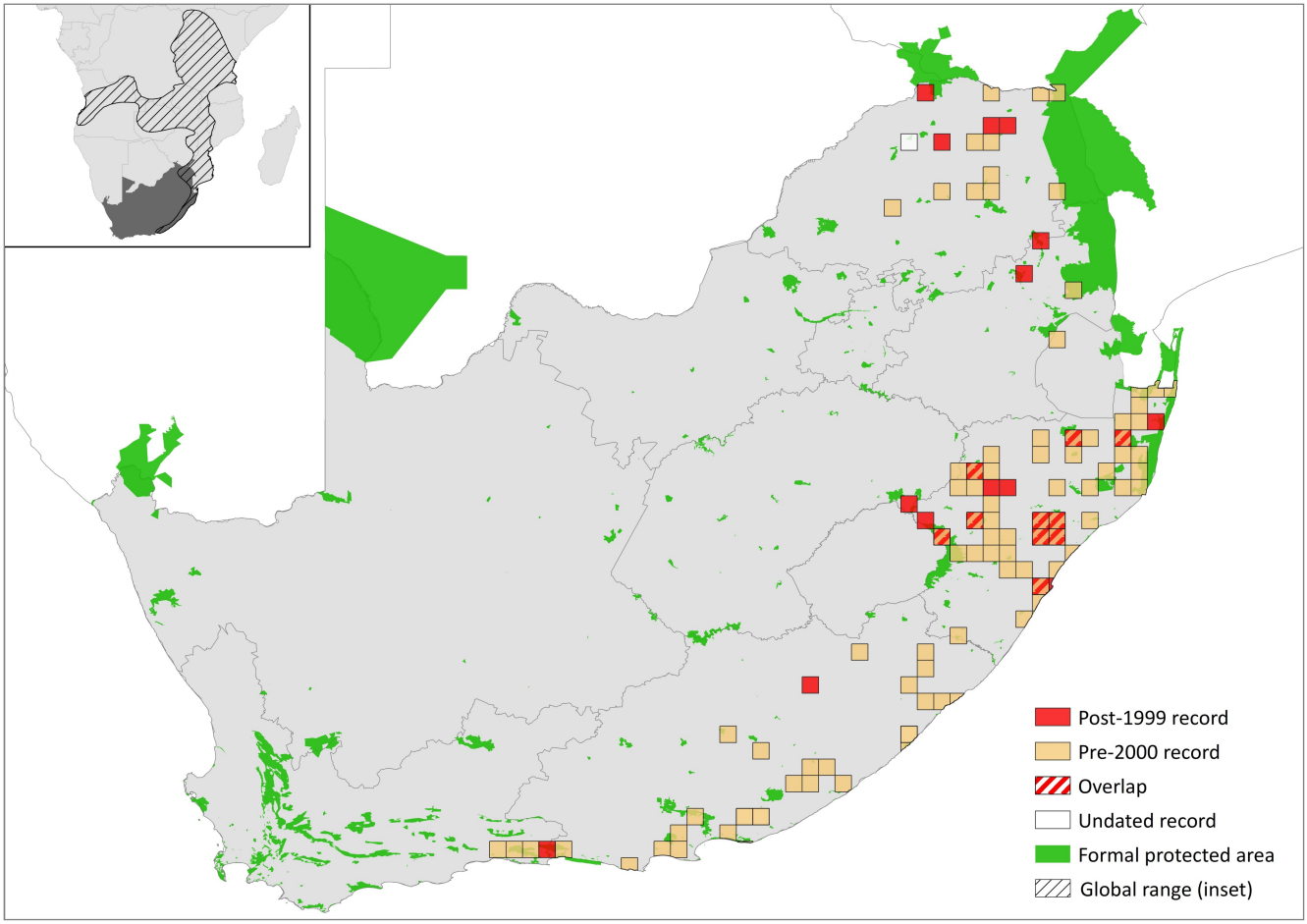

Figure 1. Distribution records for Woodland Thicket Rat (*Grammomys dolichurus*) within the assessment region

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	Extant	Native
Zimbabwe	Extant	Native

Number of subpopulations: Unknown

Severely fragmented: No

Habitats and Ecology

This species inhabits forest areas (dry forest and moist lowland forest); dry, moist and high altitude shrubland; woodlands; as well as anthropogenic habitats, such as arable land, pasture land and urban areas. It prefers thick vegetation, but is absent from Africa's rainforest zone (Monadjem et al. 2015). In Swaziland, this species was found in a boulder-strewn thicket of a steep slope at Maguga Dam (Avenant & Kuyler 2002). They are often found in secondary growth areas with shrubs (Happold 2013).

Woodland Thicket Rats are nocturnal and typically arboreal, yet may be terrestrial when trees and bushes are scarce. They are highly agile and have various adaptations for climbing, including a long digit on the hindfoot and a long tail for balance (Happold 2013). They build spherical nests from grasses and leaves with a single entrance up to about 4 m above the ground (Happold 2013). They also nest in axils of banana leaves and pineapple plants, and are occasionally found in abandoned barbet and weaver nests (Happold 2013). They are considered communal, and several individuals or family groups have been found within the same nest (Roberts 1951).

In Karkloof Forest (KwaZulu-Natal), a study revealed that 47% of the stomach contents from 11 individuals was made up of fruit, 46% of leaves and stems and 6% of invertebrates (Wirminghaus & Perrin 1992). From limited information pertaining to the reproductive ecology of this species, it appears that it has a prolonged breeding season, which peaks in the warm, wet summer months from October to February (Skinner & Chimimba 2005).

Ecosystem and cultural services: No specific ecosystem services have been identified for this species, but this may simply reflect the paucity of information available for this poorly-known species.

Use and Trade

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

Table 2. Threats to the Woodland Thicket Rat (*Grammomys dolichurus*) 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	*8.1.2 Invasive Non-Native/Alien Species/Diseases*: localised predation by domestic cats in urban and agricultural areas. Current stress *2.1 Species Mortality*.	-	Anecdotal	-	-

Threats

In view of the species adaptability, there are presumably no major threats. However, domestic cats may prey on this species in urban and agricultural areas.

Current habitat trend: Stable

Conservation

This species occurs in several protected areas within the assessment region, for example Ndumo Game Reserve, uMkuze Nature Reserve and Kruger National Park. There are no specific conservation interventions necessary at present.

Recommendations for land managers and practitioners:

- No specific management recommendations have been identified.

Research priorities:

- Taxonomic resolution is necessary as this may comprise a species complex. Studies should aim to confirm the status of the northern population and whether that group represents the distinct species *G. surdaster*.

Encouraged citizen actions:

- Landowners and city planners should conserve corridors of forest on their properties and/or in public spaces.
- Report sightings on virtual museum platforms (for example, iSpot and MammalMAP), especially outside protected areas. However, due to morphological similarity and sympatric distributions in some parts, misidentification of this species with *G. cometes* is common.

References

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Data Sources and Quality

Table 3. Information and interpretation qualifiers for the Woodland Thicket Rat (*Grammomys dolichurus*) assessment

Data sources	Field study (literature, unpublished), indirect information (literature, expert knowledge), museum records
Data quality (max)	Estimated
Data quality (min)	Inferred
Uncertainty resolution	Best estimate
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.*