Amblysomus marleyi – Marley's Golden Mole

Photograph wanted

Regional Red List status (2016)	**Endangered B1ab (ii,iii,v)+2ab(ii,iii,v)***
National Red List status (2004)	Endangered B2ab(ii,iii)
Reasons for change	No change
Global Red List status (2015)	Endangered B1ab (ii,iii,v)+2ab(ii,iii,v)
TOPS listing (NEMBA)	None
CITES listing	None
Endemic	Yes

*Watch-list Data

Like other golden moles, Marley's Golden Mole constructs both subsurface tunnels, which are utilised for foraging, and deeper tunnels that lead to breeding and nesting chambers under tree roots and rocks (Skinner & Chimimba 2005).

Taxonomy

Amblysomus marleyi (Roberts 1931)

ANIMALIA - CHORDATA - MAMMALIA - AFROSORICIDA - CHRYSOCHLORIDAE - *Amblysomus* - *marleyi*

Common names: Marley's Golden Mole (English), Marley se Gouemol (Afrikaans)

Taxonomic status: Species

Taxonomic notes: Previously described as a subspecies of *A. hottentotus*, this species is now recognised as a distinct species, and differs from other taxa in cranial measurements (Bronner 1996). Currently, no subspecies of *A. marleyi* have been described.

Assessment Rationale

The species is listed as Endangered because it is only recorded from two locations 49 km apart. Extent of occurrence is *c.* 1,500 km^2 and area of occupancy is only 32 km^2 (based on a grid cell area of 16 km^2). Overgrazing and poor agricultural practices by growing low-income subsistence farming communities have, and continue to, lead to habitat degradation and probable ongoing declines in the numbers of individuals and quality of suitable habitat. Further field surveys are required to more accurately delimit distribution and occupancy, and this species should be reassessed subsequently.

Distribution

Endemic to South Africa, this species is known from only two isolated localities (Ubombo and Ingwavuma) on the eastern slopes of Lebombo Mountains in KwaZulu-Natal (Figure 1). Owl pellet remains from Weenen, about 250 km southwest, appear to represent this species, suggesting that it may be more widespread than currently recognized. Its range possibly extends into south-eastern Swaziland along Lebombo Mountains. There are two locations with an estimated extent of occurrence of 1,563 km^2 and an area of occupancy of 32 km^2.

Population

The species is recognised from only two isolated localities (Ubombo and Ingwavuma) on the eastern slopes of Lebombo Mountains in KwaZulu-Natal. It is locally common, but no quantitative data are available.

Current population trend: Unknown

Continuing decline in mature individuals: Yes

Number of mature individuals in population: Unknown

Number of mature individuals in largest subpopulation: Unknown

Number of subpopulations: Two

Severely fragmented: No

Habitats and Ecology

It is associated with moist grassland and indigenous forest habitats in Natal Lowveld Bushveld and Lebombo Arid-Mountain Bushveld of the Savannah biome in KwaZulu-Natal. It does not range below the mountains on the Mozambique plain, where it is replaced by the Yellow Golden Mole (*Calcochloris obtusirostris*). It also occurs in gardens (Bronner 2013). Similar to other golden moles, *A marleyi* is insectivorous, predominantly nocturnal and constructs both subsurface foraging tunnels and deeper nesting chambers tunnels, which are usually situated under roots and large rocks (Skinner & Chimimba 2005).

Use and Trade

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

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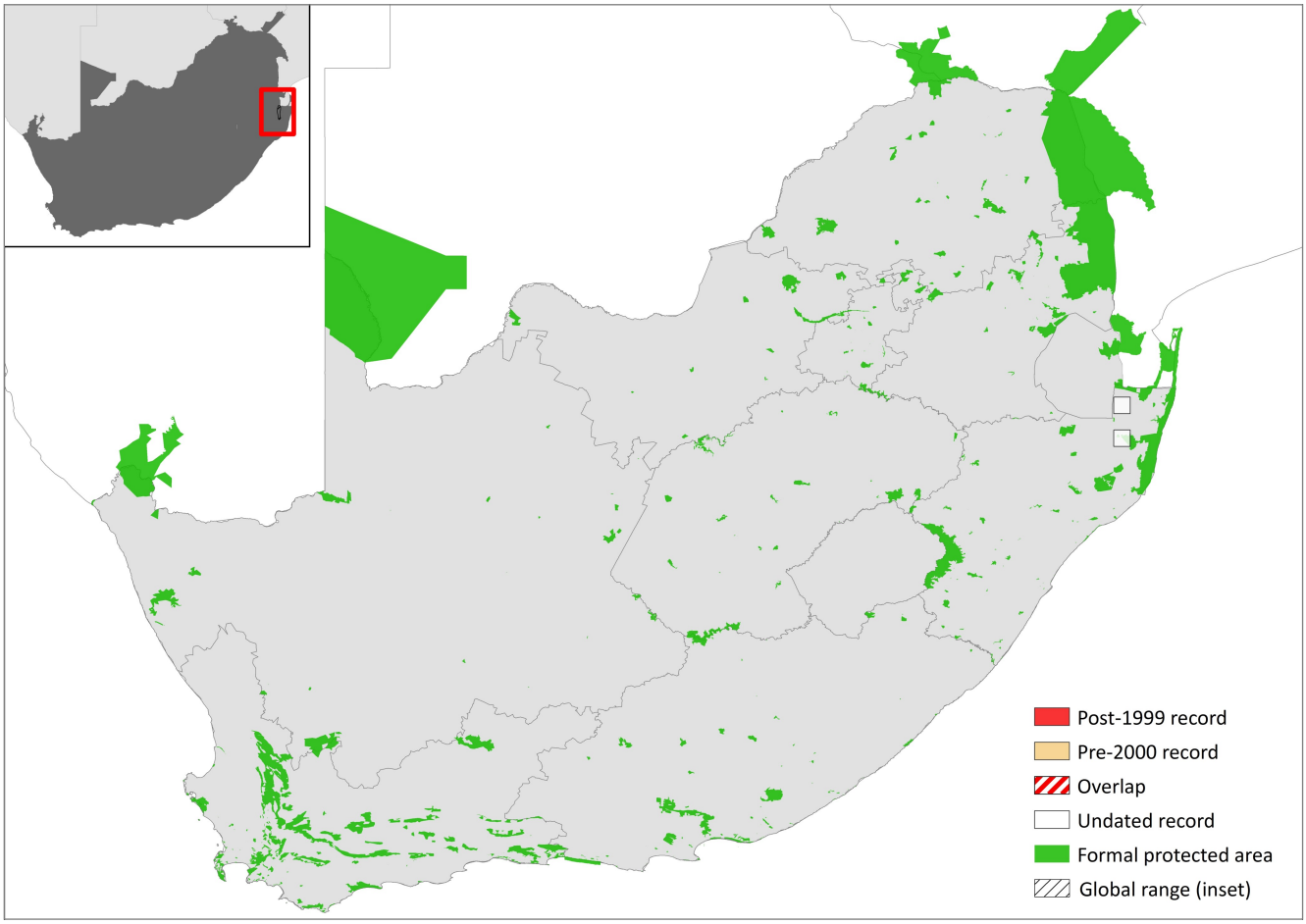

Figure 1. Distribution records for Marley's Golden Mole (*Amblysomus marleyi*) within the assessment region

Table 1. Countries of occurrence within southern Africa

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

Threats

Habitat degradation is expected to be the most severe threat faced by Marley's Golden Mole, possibly through overgrazing, urbanisation (in the Ubombo district) or the removal of vegetation for firewood by local communities. Localised threats include predation by domestic cats and dogs, as well as pesticide contamination in habitats adjacent to agricultural areas. Since urban and rural development has increased by 6% and 1% respectively in KwaZulu-Natal between 2000 and 2013 (GeoTerraImage 2015), there is an inferred increase in predation from pets,

Table 2. Threats to the Marley's Golden Mole (*Amblysomus marleyi*) 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	*1.1 Housing & Urban Areas*: increased predation and habitat degradation from residential and urban development. Current stresses *1.1 Ecosystem Conversion* and *2.1 Species Mortality*: direct conversion of the ecosystem and direct killing of the species by domestic pets.	GeoterraImage 2015	Indirect (land change from remote sensing)	Regional	Increasing
2	*2.1.2 Small-holder Farming*: habitat loss and increased poisoning from agricultural expansion.	Jewitt et al. 2015	Indirect (land change from remote sensing)	Regional	Increasing
3	2.3.2 Livestock Farming & Ranching: habitat loss from agricultural expansion. Current stress *1.2 Habitat Degradation*: from overgrazing.	Jewitt et al. 2015	Indirect (land change from remote sensing)	Regional	Increasing
4	5.3 Logging & wood harvesting: habitat loss from extensive logging and woody vegetation. Current stress *1.2 Habitat Degradation*: from overgrazing.	Jewitt et al. 2015	Indirect (land change from remote sensing)	Regional	Increasing

Table 3. Conservation interventions for the Marley's Golden Mole (*Amblysomus marleyi*) 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.	-	Anecdotal	-	--	-
2	*2.1 Site/Area Management*: reduce overgrazing and overlogging.	-	Anecdotal	-	-	-

pesticide and habitat degradation from firewood collection in the region.

Current habitat trend: Declining in area and quality. Its core grassland and forest habitats are prone to being modified, and there is an estimated on-going loss of natural habitat in KwaZulu-Natal of 1.2% per year (Jewitt et al. 2015).

Conservation

Marley's Golden Mole is known to occur within the Pongola Wilderness Area, but additional research into the population trends, distribution and threats associated with this species is necessary in order to ensure the continued persistence of this species. Protected area expansion, reduced overgrazing and reduced logging will presumably benefit this species.

Recommendations for land managers and practitioners:

- Field surveys to discover additional subpopulations.
- Incentivise landowners to de-stock to reduce overgrazing impacts.

Research priorities:

- Field studies to determine life history traits and ecological tolerances of this species.
- Studies on subpopulation sizes, trends and distribution.
- Studies assessing the severity of threats to this species.

Encouraged citizen actions:

- Report sightings on virtual museum platforms (for example, iSpot and MammalMAP), especially outside protected areas.
- Deposit any dead specimens found in a state or provincial museum, together with information on the date and site where found.
- Create indigenous vegetation gardens.

References

Bronner GN. 1996. Geographic patterns of morphometric variation in the Hottentot golden mole, *Amblysomus hottentotus* (Insectivora: Chrysochloridae). A multivariate analysis. Mammalia **60**:729–752.

Bronner GN. 2013. *Amblysomus marleyi* Marley's Golden-mole. Pages 230–231in Kingdon J, Happold D, Hoffmann M, Butynski T, Happold M, Kalina J, editors. Mammals of Africa, Volume I: Introductory Chapters and Afrotheria. Bloomsbury Publishing, London, UK.

GeoTerraImage. 2015. Quantifying settlement and built-up land use change in South Africa.

Jewitt D, Goodman PS, Erasmus BFN, O'Connor TG, Witkowski ETF. 2015. Systematic land-cover change in KwaZulu-Natal, South Africa: implications for biodiversity. South African Journal of Science **111**:1–9.

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 Marley's Golden Mole (*Amblysomus marleyi*) assessment

Data sources	Museum records, indirect information (literature)
Data quality (max)	Inferred
Data quality (min)	Suspected
Uncertainty resolution	Best estimate
Risk tolerance	Precautionary

Assessors and Reviewers

Gary Bronner[1†], Samantha Mynhardt[2]

[1]University of Cape Town, [2]University of Pretoria

[†]IUCN SSC Afrotheria Specialist Group

Contributors

Andrew Taylor[1], Claire Relton[1], Matthew F. Child[1]

[1]Endangered Wildlife Trust

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