

Cryptochloris zyli – Van Zyl’s Golden Mole



Jennifer Jarvis

Regional Red List status (2016)	Endangered B1ab(iii) + 2ab(iii) *
National Red List status (2004)	Critically Endangered B1ab(iii) + 2ab(iii) + D
Reasons for change	Non-genuine change: New information
Global Red List status (2015)	Endangered B1ab(iii) + 2ab(iii)
TOPS listing (NEMBA)	None
CITES listing	None
Endemic	Yes

*Watch-list Threat

Only four specimens of this species have ever been collected, at two separate localities about 160 km apart.

not conspecific (Meester 1974). Recent (but unpublished) phylogenetic analyses based on both morphological and genetic data support the allocation of these taxa to separate species, and justify synonymizing *Cryptochloris* as a subgenus of *Chrysochloris*, corroborating the close phylogenetic association of these taxa reported by Asher et al. (2010).

Assessment Rationale

Until recently this species was known only from a single location, but in 2003 a second location near Groenriviermond was recorded. This suggests that the range of this species is more widespread than previously recognized. The extent of occurrence is estimated to be c. 5,000 km² and area of occupancy is estimated to be 32 km² (assuming a grid cell area of 16 km²). Further field surveys are needed to discover other potential subpopulations. Dramatic habitat alteration owing to mining of coastal sands for alluvial diamonds could be impacting on the coastal dune habitats of this species, as this has been identified as a threat to *Eremitalpa granti* with which this species coexists. Additionally, large-scale alluvial diamond mines occur at Hondeklipbaai (c. 60 km from the Groenriviermond subpopulation) and are undergoing expansion. Habitat alteration owing to the erection of wind farms near the type locality is a potential emerging, but localized, threat. The species is therefore confirmed as Endangered under criterion B1ab(iii) + 2ab(iii).

Distribution

Until recently this species was recorded from only the type locality near Lambert's Bay, South Africa (Helgen & Wilson 2001). Another specimen was collected at Groenriviermond, some 150 km further north along the Namaqualand coast in November 2003 (Bronner 2013), suggesting that the range of this species is more extensive than previously recognised, perhaps due to the difficulty in catching these moles. Range continuity between these localities cannot, however, be justifiably assumed as so little is known about the ecological requirements and tolerances of this species.

Population

This species is extremely rare even at the two locations where it is known to occur. No quantitative data are available.

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: Two

Severely fragmented: Yes, there are only two known occurrence records approximately 150 km apart.

Taxonomy

Cryptochloris zyli (Shorridge & Carter 1938)

ANIMALIA - CHORDATA - MAMMALIA - AFROSORICIDA - CHRYSOCHLORIDAE - *Cryptochloris* - *zyli*

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

Taxonomic status: Species

Taxonomic notes: Simonetta (1968) regarded this monotypic species as only subspecifically distinct from *C. wintoni*. However, these taxa differ consistently in pelage colour and malleus morphology, indicating that they are

Recommended citation: Bronner GN, Asher R. 2016. A conservation assessment of *Cryptochloris zyli*. 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.

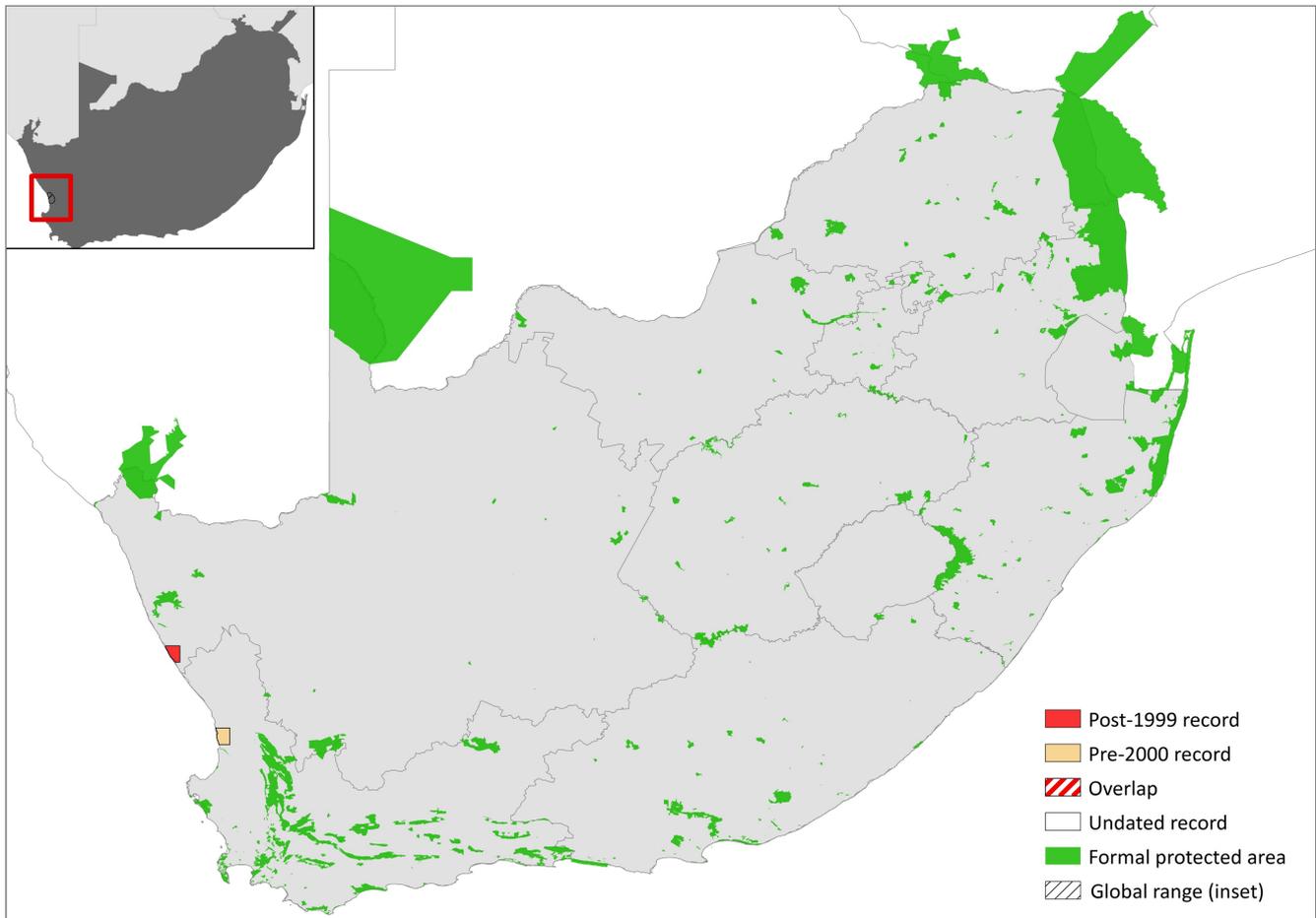


Figure 1. Distribution records for Van Zyl's Golden Mole (*Cryptochloris zylfi*) within the assessment region

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	-

Habitats and Ecology

The habitat of this species is expected to consist of the coastal dune belt and adjacent sandy areas in Strandveld Succulent Karoo (Nama-Karoo biome) of the Namaqua coastal plain in the Western and Northern Cape provinces. As yet, nothing is known about the diet, reproduction or behaviour of this species.

Use and Trade

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

Table 2. Threats to the Van Zyl's Golden Mole (*Cryptochloris zylfi*) 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	3.2 Mining & Quarrying: habitat loss from diamond mining in coastal sands.	-	Anecdotal	-	Ongoing
2	3.3 Renewable Energy: habitat loss from wind farm development.	-	Anecdotal	-	-
3	1.3 Tourism & Recreation Areas: habitat loss from recreational developments along the coast.	GeoTerralimage 2015	Indirect (remote sensing)	Regional	Increasing
4	2.1.2 Small-holder Farming and 2.4.1 Subsistence/ Artisanal Aquaculture: habitat loss owing to smallholder agriculture and mariculture.	-	Anecdotal	-	-

Table 3. Conservation interventions for the Van Zyl's Golden Mole (*Cryptochloris zylfi*) 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	<i>5.4 Compliance & Enforcement:</i> enforce protective laws at the two known localities to ensure conservation of this species.	-	Anecdotal	-	Future potential	-
2	<i>1.1 Site/Area Protection:</i> establishment of new public or private protected areas.	-	Anecdotal	-	Future potential	-

Threats

Dramatic habitat alteration owing to large-scale mining of coastal sands for alluvial diamonds could be impacting the coastal dune habitats of this species, as this has been identified as threat to *Eremitalpa granti* (Smithers 1986) with which this species coexists. Large-scale alluvial diamond mines occur at Hondeklipbaai (~60 km from the Groenriviermond subpopulation) and are undergoing expansion. However, the extent and impact of this potential threat is unknown. Habitat alteration associated with the establishment of wind farms near the type locality, and tourism developments along the coast may pose additional threats.

Current habitat trend: Declining, due to ongoing habitat loss from coastal diamond mining and development. Additionally, urban and rural settlements expanded by 15% and 9% between 2000 and 2013 in Northern Cape Province (GeoTerralimage 2015).

Conservation

This species occurs near the Groenriviermond in Namaqua National Park. No protected area expansion is possible until further surveys elucidate subpopulation distribution. Systematic geographic surveying specifically between Lamberts Bay, Groenriviermond and along the coast as far as Port Nolloth is needed.

Recommendations for land managers and practitioners:

- Field surveys to identify further subpopulations and assess the extent of anthropogenic threats are urgently needed.

Research priorities:

- Research is needed to establish distribution limits and to gather basic data on natural history of this species, including taxonomy, ecology, population size, distribution and trends.
- Studies into specific threats to this species, and corresponding conservation actions are needed.

Encouraged citizen actions:

- Report sightings on virtual museum platforms (for example, iSpot and MammalMAP), especially outside protected areas. Release any live-caught specimens in pristine natural habitat.
- Deposit any dead specimens found in a state or provincial museum, together with information on the date and site where found.

Data Sources and Quality

Table 4. Information and interpretation qualifiers for the Van Zyl's Golden Mole (*Cryptochloris zylfi*) assessment

Data sources	Museum records, field surveys (unpublished), indirect information (unpublished)
Data quality (max)	Inferred
Data quality (min)	Suspected
Uncertainty resolution	Best estimate
Risk tolerance	Evidentiary

References

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

Simonetta AM. 1968. A new golden mole from Somalia with an appendix on the taxonomy of the family Chrysochloridae (Mammalia, Insectivora). *Monitore Zoologico Italiano. Supplemento* 2:27–55.

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