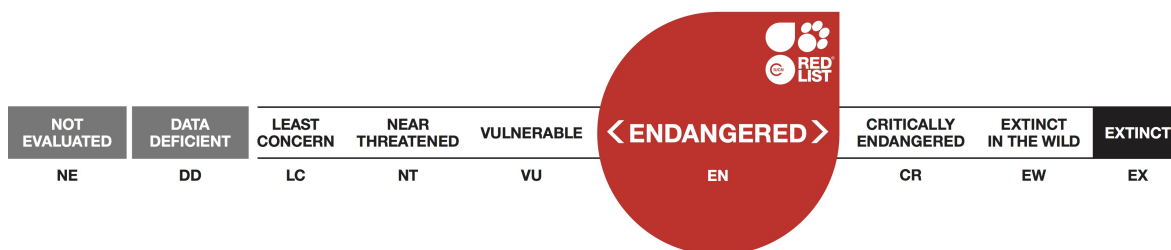


Mungotictis decemlineata, Bokiboky

Assessment by: Hawkins, F.



View on www.iucnredlist.org

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Carnivora	Eupleridae

Taxon Name: *Mungotictis decemlineata* (A. Grandidier, 1867)

Synonym(s):

- *Mungotictis lineata*
- *Mungotictis substriatus*
- *Mungotictis vittatus*

Common Name(s):

- English: Bokiboky, Malagasy Narrow-striped Mongoose, Narrow-striped Mongoose

Taxonomic Notes:

Two subspecies are accepted: *M. d. decemlineata*, in the northern range of the species, and *M. d. lineata*, formerly known only from the holotype at the southern limit of the range, but since recorded in the Manombo River valley (Hawkins *et al.* 2000, Goodman *et al.* 2005). Given the differences in distribution, pelage and ecology between *M. d. lineata* and the nominate (Hawkins *et al.* 2000, Goodman *et al.* 2005), it would be reasonable to treat these forms as different species (Goodman 2013), although a formal proposal for such treatment has not yet been made.

Assessment Information

Red List Category & Criteria: Endangered A3cde+4cde [ver 3.1](#)

Year Published: 2015

Date Assessed: March 2, 2015

Justification:

The Bokiboky is listed as Endangered because it is likely that over the course of the next three generations (taken as 18 years), the population will drop by more than 50% (and possibly much more) mainly because of the breakdown of governance since the coup d'etat in 2009, which has led to widespread habitat loss (this has tripled since 2003-2006 in the core area of habitat), and habitat degradation, hunting, persecution, and the effects of non-native carnivores.

Previously Published Red List Assessments

2008 – Vulnerable (VU) – <http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T13923A4365053.en>

2000 – Endangered (EN)

1996 – Vulnerable (VU)

1994 – Vulnerable (V)

1990 – Vulnerable (V)

Geographic Range

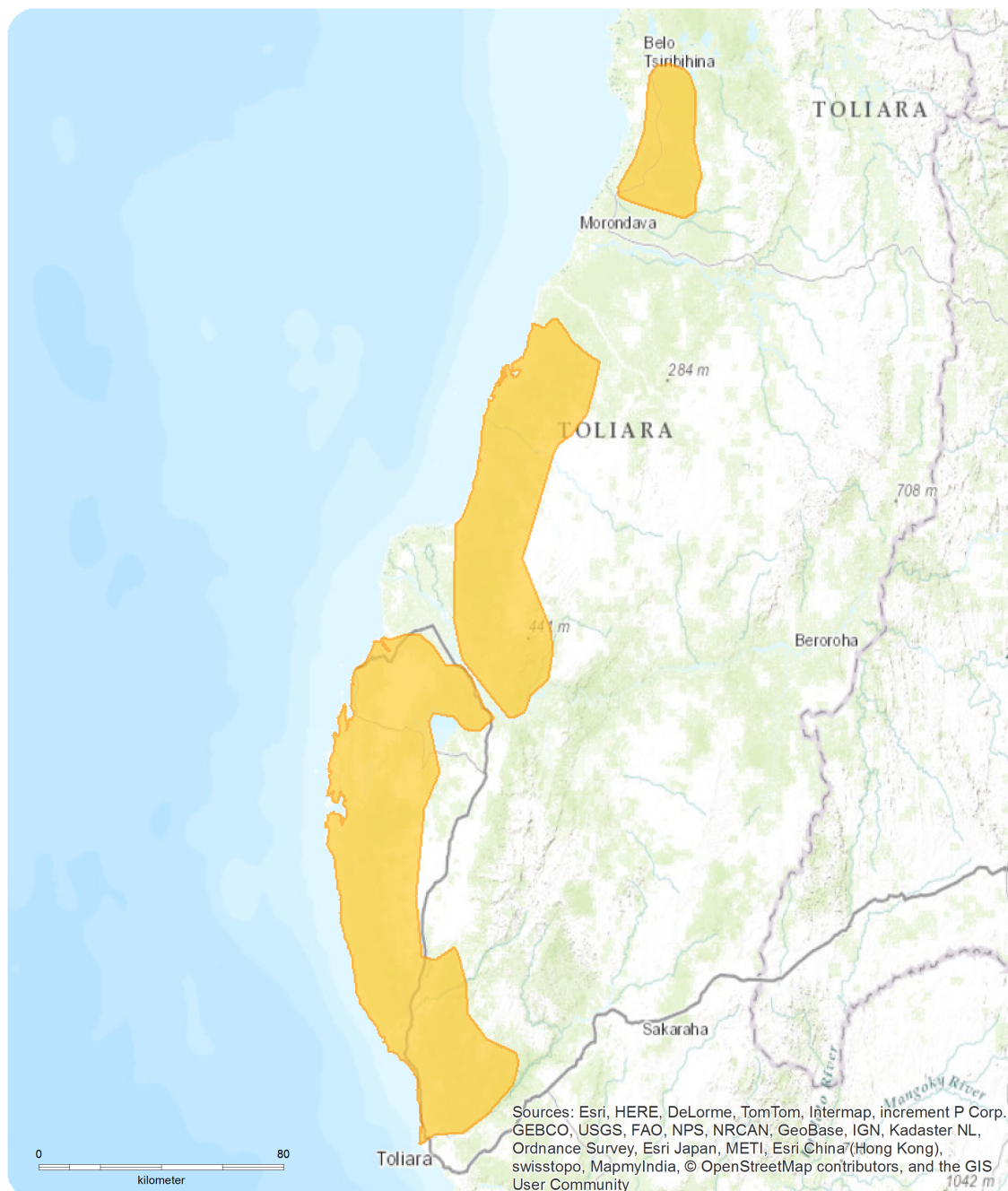
Range Description:

This species is endemic to the dry deciduous forests of the central and southern Menabe regions of western Madagascar from sea level to about 125 m asl. It is found between the Tsiribihina River in the north to south of the Manombo River (Razafimanantsoa 2003, Goodman *et al.* 2005). The precise southern limits of the nominate subspecies' range remain unclear (Woolaver *et al.* 2006), but it does not extend south of the large Mangoky river, a significant biogeographical boundary. *Mungotictis decemlineata lineata* has recently been rediscovered south of this river (Goodman *et al.* 2005).

Country Occurrence:

Native: Madagascar

Distribution Map



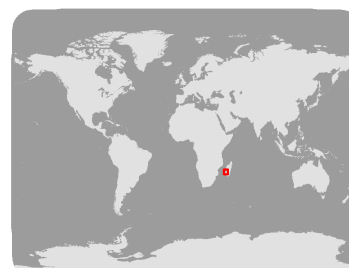
Mungotictis decemlineata



Range

■ Extant (resident)

Compiled by:
IUCN (International Union for
Conservation of Nature)



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

The Bokiboky can be locally common. In central Menabe, densities range from 0.25 to 2.9 individuals/ha (Rabeantoandro 1997, Razafimanantsoa 2003). From live-trapping and village surveys, Woolaver *et al.* (2004, 2006) found *M. d. decemlineata* to be distributed throughout the largest area of connected forest in central Menabe and most of the larger forest fragments in southern Menabe; these authors estimated a minimum of 2,000–3,400 adults in central Menabe and 6,400–8,650 adults in southern Menabe. The species seems to occur at much lower densities between the Mangoky and Fiherenana Rivers, in the range of *M. d. lineata*.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This is a diurnal, part-ground-dwelling, part-arboreal species found in dry deciduous forest. During the night, animals sleep in burrows, or holes in both fallen and standing trees and in similar shelters. It is usually found in family groups of 6-8. The gestation period is between 74 and 106 days after which a single young is born (Razafimanantsoa 2003).

Systems: Terrestrial

Threats (see Appendix for additional information)

The Bokiboky is threatened by conversion of its forest habitat to cultivated land and pasture, selective logging, and by incidental mortality caused by hunting dogs (Razafimanantsoa 2003). Feral dogs are known predators of this species. In western Madagascar, Zinner *et al.* (2014) showed that for central Menabe, one of the most important centres of distribution of Bokiboky, deforestation rates of 0.78 km²/yr during 2003-2006 increased to 1.09 km²/yr in 2006-2008, and to 2.55 km²/yr by 2008-2010. There is ample evidence that the recent trend has continued in 2010-2014, with in addition increased illegal logging and hunting in the core forest areas, which will undoubtedly negatively impact populations of all native carnivores, especially through the increased presence of dogs. The recently rediscovered southern population of *M. d. lineata* in the Mikea forests has an extremely low population density (Goodman *et al.* 2005).

Conservation Actions (see Appendix for additional information)

This species is present in the Central Menabe provisional protected area, Kirindy Mitea National Park, and Andranomena Special Reserve (at extremely low densities).

Credits

Assessor(s): Hawkins, F.

Reviewer(s): Duckworth, J.W.

Contributor(s): Woolaver, L., Jenkins, R.K.B. & Jones, J.P.G.

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External Resources

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Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.5. Forest - Subtropical/Tropical Dry	-	Suitable	-
3. Shrubland -> 3.5. Shrubland - Subtropical/Tropical Dry	-	Suitable	-

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.1. Shifting agriculture	Ongoing	Whole (>90%)	Rapid declines	High impact: 8
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.1. Nomadic grazing	Ongoing	Minority (50%)	Negligible declines	Low impact: 4
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.2. Unintentional effects (species is not the target)	Ongoing	Whole (>90%)	Rapid declines	High impact: 8
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.5. Motivation Unknown/Unrecorded	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species (Canis familiaris)	Ongoing	Whole (>90%)	Rapid declines	High impact: 8
	Stresses:	2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition		

Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Land/Water Protection and Management
Occur in at least one PA: Yes

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
2. Land/water management -> 2.1. Site/area management

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends

Additional Data Fields

Distribution
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Continuing decline in extent of occurrence (EOO): Yes
Extreme fluctuations in extent of occurrence (EOO): No
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 0
Upper elevation limit (m): 125
Population
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
Continuing decline in subpopulations: Yes

Population
Extreme fluctuations in subpopulations: No
All individuals in one subpopulation: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 5.9
Movement patterns: Not a Migrant

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