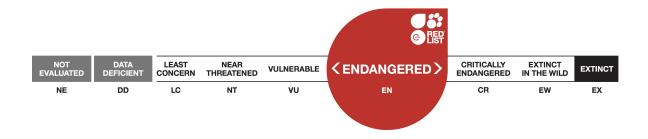


Galidictis grandidieri, Grandidier's Vontsira

Assessment by: Hawkins, F.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Carnivora	Eupleridae

Taxon Name: Galidictis grandidieri Wozencraft, 1986

Common Name(s):

• English: Grandidier's Vontsira, Giant-striped Mongoose, Grandidier's Mongoose

Assessment Information

Red List Category & Criteria: Endangered B1ab(i,ii,iii,v) ver 3.1

Year Published: 2015

Date Assessed: March 2, 2015

Justification:

This species is listed as Endangered under B1ab(i,ii,iii,v). Its extent of occurrence (EOO) may be as low as 1,500 km² (and is certainly well below 5,000 km², the threshold for Endangered) and comprises a single location. Ongoing piecemeal habitat loss allows the inference that there is a continuing decline in each of the extent of occurrence; the area of occupancy; the area, extent and probably quality of habitat; and the number of mature individuals. Habitat-driven population decline is likely to be compounded by predation by non-native predators. The most recent total population estimate is of 3,000-5,000 individuals, all in one locality (the area around Lac Tsimanampetsotsa) and in continuing decline, suggesting that this species might be close to qualifying also for Endangered under C2a(ii). The recent decline in natural resource governance as a result of the coup d'etat in 2009 has increased habitat destruction and hunting in the area, which will undoubtedly have increased impacts on this species.

Previously Published Red List Assessments

2008 - Endangered (EN) - http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T8834A12935685.en

2000 - Endangered (EN)

1996 – Endangered (EN)

1994 – Rare (R)

1990 – Insufficiently Known (K)

1988 - Insufficiently Known (K)

Geographic Range

Range Description:

This species is restricted to the Lac Tsimanampetsotsa region of southwestern Madagascar. It has been recorded from the edge of the Mahafaly Plateau north and further south to near the Linta River

(Goodman 2003, Mahazotahy *et al.* 2006). The altitudinal range is 35-145 m asl (Mahazotahy *et al.* 2006). A model calculated the range to be 442 km² (Mahazotahy *et al.* 2006), but a more recent model calculated it to be 1,500 km² (Marquard *et al.* 2011); although the source is not entirely clear, the figure seems closer to an extent of occurrence (EOO) than an area of occupancy (AOO).

Country Occurrence:

Native: Madagascar

Distribution Map





Population

Described only in 1986, this species appears to be locally common in pristine forest (Goodman 2003). Its total population was estimated at between 2,650 and 3,540 individuals (including juveniles) by Mahazotahy *et al.* (2006), whereas Marquard *et al.* (2010) estimated the population at 3,100 to 5,000 individuals. The differences are likely to represent differences in methodology, not a true increase in population between surveys; in fact, the population can safely be assumed to be declining given ongoing conversion to agriculture. Population density is greatest in the western, lower-lying part of the Mahafaly plateau, and lower in the drier eastern part (Marquard *et al.* 2010).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This nocturnal, ground-dwelling species is found in dry spiny tropical forest and shrubland and at the edge of the forest in areas disturbed by cattle grazing. Animals spend the daylight hours asleep in burrows or in the holes that are prevalent in the fissured limestone substrate characteristic of its habitat. While little is known about reproduction in this species, it appears to breed continuously (Goodman 2003).

Systems: Terrestrial

Use and Trade

There is no use or trade information.

Threats (see Appendix for additional information)

This species has a limited range, and its habitat is threatened by livestock grazing and clearance for maize cultivation. The western part of the area in which it is found is reasonably inhospitable to human encroachment (Goodman 2003). It is probably at risk of predation by non-native carnivores, especially dogs.

Hunting of this species is presumed to have increased significantly, particularly in the western of the its range, since 2009 because of reductions in governance and increased social instability following a coup d'etat, which has led to major increases in hunting of Radiated Tortoise *Astrochelys radiata* and other wildlife in the species's range: "one of the most troubling trends is that poachers are now entering protected areas (Special Reserves, National Parks [including Tsimanampetsotsa National Park, the only protected area where Grandidier's Vontsira is found], World Heritage Sites) to collect tortoises and the staff there are poorly equipped to patrol and protect populations. The situation is exacerbated by several factors:

- 1) Years of extreme drought that have led to diminished agricultural production and increased poverty, which leads people to tortoise hunting [and hunting of other species] for survival;
- 2) Enforcement action is often days away so that local officials do not have the capacity to stop poachers;

- 3) Severe habitat degradation has made the spiny forest the most endangered forest type in Madagascar. After burning and clearing for agriculture invasive plant species take over and today thick stands of *Opuntia* (prickly pear) and sisal (agave) dominate the landscape;
- 4) Current political instability has resulted in an increased open access to natural resources and illegal pet trade" (Anonymous 2010).

Conservation Actions (see Appendix for additional information)

The only protected area within the range of Grandidier's Vontsira is Tsimanampetsotsa National Park. Further studies are needed into the ecology of this species, as well as the extent of threats, to allow a more informed assessment of its conservation needs.

Credits

Assessor(s): Hawkins, F.

Reviewer(s): Duckworth, J.W.

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

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External Resources

For Images and External Links to Additional Information, please see the Red List website.

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 -> 2.1.2. Small-holder farming	Ongoing	Majority (50- 90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion		
		1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.1. Nomadic grazing	Ongoing	Majority (50- 90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
		2. Species Stresses -> 2.1. Species mortality		rtality
		 Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition 		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Ongoing	Unknown	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.1. Unspecified species	Ongoing	Unknown	-	-
	Stresses:	2. Species Stres	ses -> 2.1. Species mo	rtality
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species (Canis familiaris)	Ongoing	Unknown	-	-
	Stresses:	2 Charles Stree	ses -> 2.1. Species mo	rtality

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

- 2. Land/water management -> 2.1. Site/area management
- 4. Education & awareness -> 4.3. Awareness & communications

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
- 1. Research -> 1.6. Actions
- 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	
Estimated extent of occurrence (EOO) (km²): 1500	
Continuing decline in extent of occurrence (EOO): Yes	
Extreme fluctuations in extent of occurrence (EOO): No	
Number of Locations: 1	
Continuing decline in number of locations: No	
Extreme fluctuations in the number of locations: No	
Lower elevation limit (m): 35	
Upper elevation limit (m): 145	
Population	
Continuing decline of mature individuals: Yes	
Extreme fluctuations: No	
Population severely fragmented: No	
No. of subpopulations: 1	
Extreme fluctuations in subpopulations: No	

Population

All individuals in one subpopulation: Yes

Habitats and Ecology

Continuing decline in area, extent and/or quality of habitat: Yes

Generation Length (years): 4.8

Movement patterns: Not a Migrant

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