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Eupleres goudotii, Eastern Falanouc

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Carnivora	Eupleridae

Taxon Name: Eupleres goudotii Doyère, 1835

Synonym(s):

• Eupleres goudotii ssp. goudotti Doyère, 1835

Common Name(s):

- English: Eastern Falanouc, Fanalouc
- French: Euplère de Goudot

Taxonomic Notes:

Until recently the genus *Eupleres* was generally considered to hold only one species, *E. goudotii*. Goodman and Helgen (2010) provided convincing morphological evidence that there are two species, geographically separated. This treatment is followed here.

Assessment Information

Red List Category & Criteria:	Vulnerable A2cde+3cde+4cde <u>ver 3.1</u>
Year Published:	2016
Date Assessed:	March 2, 2015

Justification:

Eastern Falanouc is listed as Vulnerable because it is likely that over the course of the last three generations (taken as 24 years), the population has dropped by more than 30% (and possibly much more) mainly because of widespread hunting, persecution, and the effects of introduced carnivores. More recently, the rate of hunting has increased significantly because of a breakdown of governance since the coup d'etat in 2009, leading to increased artisanal mining in forest areas, increased hunting, and increased opportunistic rosewood cutting throughout the species's range, suggesting that there will be a further population drop of 30%, or more, over the next three generations.

Previously Published Red List Assessments

2000 – Endangered (EN) – http://dx.doi.org/10.2305/IUCN.UK.2000.RLTS.T68336601A10353976.en

2000 – Endangered (EN)

Geographic Range

Range Description:

Eastern Falanouc occurs in eastern Madagascar, from Montagne d'Ambre in the far north to Andohahela and along the banks of the Mandrare River in south-east Madagascar. It occurs in at least eleven localities, mostly below 500 m but occasionally up to 1,000 m.

Country Occurrence:

Native: Madagascar

Distribution Map

Eupleres goudotii



© The IUCN Red List of Threatened Species: Eupleres goudotii – published in 2016. http://dx.doi.org/10.2305/IUCN.UK.2016-1.RLTS.T68336601A45204582.en

Population

Gerber *et al.* (2012) recorded Eastern Falanouc at 7% of camera-trap stations in primary forest and 31% of stations in selectively logged forest at Ranomafana National Park. The species was not found in forest fragments more than 2.5 km from intact forest.

In north-east Madagascar, camera-trap surveys of Farris (*et al.* in review a, pers. comm 2014) revealed a low probability of occupancy (defined as the probability that a site/forest is occupied by the species of interest while taking into account the variation in detectability of the species across the various sites) $(0.31 \pm SE \ 0.07)$ for Eastern Falanouc across the Masoala-Makira landscape. This included a similar probability of occupancy in non-degraded ($0.24 \pm SE \ 0.08$) and degraded ($0.30 \pm SE \ 0.07$) rainforest. Its occupancy had a strong positive association with bird camera-trap success, possibly an indication that large birds of the kinds that set off camera-traps are subject to similar threats (Farris and Kelly 2011, Farris *et al.* in review a). In addition to these similar estimates of occupancy, Eastern Falanouc was also found in all degraded, fragmented forest sites (including the Farankarina site over 5 km from contiguous forest) indicating that it might not depend upon contiguous forest.

Surveys over 2008-2013 and resulting multi-season occupancy analyses at one contiguous forest site showed that Eastern Falanouc occupancy decreased significantly from 0.79 (2008) to 0.20 (2013) (camera-trap success [number of captures divided by trap nights multiplied by 100] during this time dropped from 3.11 in 2008 to 1.09 in 2013) which resulted in a probability of local extirpation of 0.31 (0.10), while camera-trap success at an additional site remained low over the three-year period from from 2011 (0.33) to 2013 (0.25) (Z. Farris pers. comm. 2014).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Eastern Falanouc occurs in eastern rainforest and adjacent degraded and marshy or overgrown areas. Around Makira (in north-east Madagacar) Eastern Falanouc observations were more frequent in areas close to villages (Farris *et al.* in review a). Eastern Falanouc perhaps feeds particularly in slightly degraded areas which may have more open, wet, or muddy areas; however, this suggestion needs to be explored further.

Eastern Falanouc is almost exclusively solitary; however, a female has been recorded travelling with a single juvenile (January). It seems mainly crepuscular with a preference for night-time just before dawn and just after dusk. However, during the hot-dry season it has a variable activity pattern and is no longer primarily crepuscular (Farris *et al.* in review b).

Systems: Terrestrial

Use and Trade

For use and trade information, see under Threats.

Threats (see Appendix for additional information)

Loss of habitat is a significant threat to Eastern Falanouc. Deforestation and forest disturbance across its

range have increased significantly since 2009. R. Rajaonson (pers. comm. 2014) estimates that deforestation in eastern forest increased from 0.5% per annum in 2005-2010 to 0.94% per annum in 2010-2013. Allnut *et al.* (2009) estimated that in Masoala National Park, annual rates of deforestation in the studied area increased to 1.27% per annum in 2011. High levels of illegal settlement in protected areas, especially around the Bay of Antongil, are linked to artisanal mining (for quartz) and logging of rosewood; hunting for food using dogs has increased greatly in these areas as a result. Some villages have seen increases in populations of between 200 and 300% (C. Golden pers. comm. 2014).

This species is actively hunted for its meat by people. In north-east Madagascar, Farris *et al.* (in review a, pers. comm. 2014) found 28 Falanoucs reportedly consumed from 2005 to 2011 across four villages (143 households were surveyed) near the Makira Natural Park. Hunting rates were highest in non-degraded forest and were positively associated with Falanouc occupancy, meaning that hunters appear to be focusing their efforts in non-degraded forest where Falanouc is most abundant (Farris *et al.* in review a). Household interviews conducted by Madagasikara Voakajy (pers. comm. 2014) in the Moramanga region of eastern Madagascar in 2008-2009 suggested that 425 (28%) of 1,532 respondents interviewed in 129 villages had eaten Falanouc in the preceding year. Hunting is presumed to have increased significantly in many parts of the species's range since 2009 because of less effective governance and increased social instability following a coup d'etat.

Competition with the introduced Small Indian Civet *Viverricula indica* is sometimes cited as a threat, although this might not be very significant. Competition with and predation by feral cats and dogs is more likely to be an important threat. Eastern Falanouc activity overlaps with that of Small Indian Civet, revealing the potential for increased interactions and competition (Farris *et al.* in review b). Eastern Falanouc presence and probability of occupancy is higher at sites where cats are most active. This may be a habitat-mediated relationship; but it presumably translates into increased interactions between these two species (Farris *et al.* in review c). Eastern Falanouc probability of occupancy increases dramatically when dogs are not present at a site and the two occur together less than expected across the landscape, meaning Falanouc does not use sites where dogs are highly active (Farris *et al.* in review c); perhaps dogs kill Falanoucs.

Conservation Actions (see Appendix for additional information)

Eastern Falanouc occurs in a number of protected areas.

Credits

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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 -> 1.6. Forest - Subtropical/Tropical Moist Lowland	-	Suitable	-

Threats

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

Threat	Timing	Scope	Severity	Impact Score
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Ongoing	Majority (50- 90%)	Slow, significant declines	Medium impact: 6
	Stresses:	2. Species Stresses -> 2.1. Species mortality		tality
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.3. Unintentional effects: (subsistence/small scale) [harvest]	Ongoing	Majority (50- 90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.4. Unintentional effects: (large scale) [harvest]	Ongoing	Majority (50- 90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 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		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Felis catus)	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		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Viverricula indica)	Ongoing	Whole (>90%)	Unknown	Unknown
	Stresses:	2. Species Stress 2.3.2. Competitie	es -> 2.3. Indirect spect	cies effects ->

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
2. Land/water management -> 2.2. Invasive/problematic species control
4. Education & awareness -> 4.2. Training
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.2. National level
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.3. Sub-national level

Research Needed

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

Research Needed
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.2. Harvest level trends
3. Monitoring -> 3.4. Habitat 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): Unknown
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

Distribution
Upper elevation limit (m): 1000
Population
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
Continuing decline in subpopulations: Unknown
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): 7.9
Movement patterns: Not a Migrant

The IUCN Red List Partnership



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