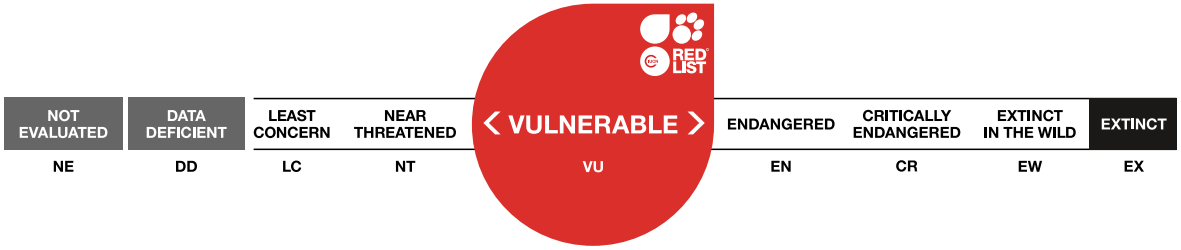
The IUCN Red List of Threatened Species™
ISSN 2307-8235 (online)
IUCN 2022: T39791A215086130
Scope(s): Global
Language: English

Macaca fascicularis ssp. umbrosa, Nicobar Long tailed Macaque

Assessment by: Ramakrishna, I., Mishra, P., Mazumder, J. & Pal, A.



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Citation: Ramakrishna, I., Mishra, P., Mazumder, J. & Pal, A. 2022. *Macaca fascicularis* ssp. *umbrosa*. *The IUCN Red List of Threatened Species* 2022: e.T39791A215086130.
https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T39791A215086130.en

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Primates	Cercopithecidae

Scientific Name: *Macaca fascicularis ssp. umbrosa* (Miller, 1902)

Synonym(s):

- *Macaca fascicularis* ssp. *umbrosus* (Miller, 1902) [orth. error]
- *Macacus umbrosus* Miller, 1902 Miller, 1902

Parent Species: See *Macaca fascicularis*

Common Name(s):

- English: Nicobar Long tailed Macaque, Nicobar Crabeating Macaque, Nicobar Cynomolgus Monkey

Taxonomic Notes:

The subspecific name has been corrected from "*umbrosus*" to "*umbrosa*". The taxon was described by Miller in 1902 as *Macacus umbrosus*. The proper genus name (Lacépède 1799), however, uses the feminine suffix "a" - *Macaca*. Therefore, the subspecies name should be "*umbrosa*".

Assessment Information

Red List Category & Criteria: Vulnerable D2 ver 3.1

Year Published: 2022

Date Assessed: March 7, 2022

Justification:

This subspecies is listed as Vulnerable (VU D2) because it is restricted to three islands (three locations, based on plausible threats). The main plausible long-term threat to this macaque is persecution, although currently the population is increasing.

Previously Published Red List Assessments

2021 – Vulnerable (VU)
https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T39791A17985345.en

2008 – Vulnerable (VU)
https://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T39791A10257717.en

2004 – Near Threatened (NT)

2000 – Data Deficient (DD)

Geographic Range

Range Description:

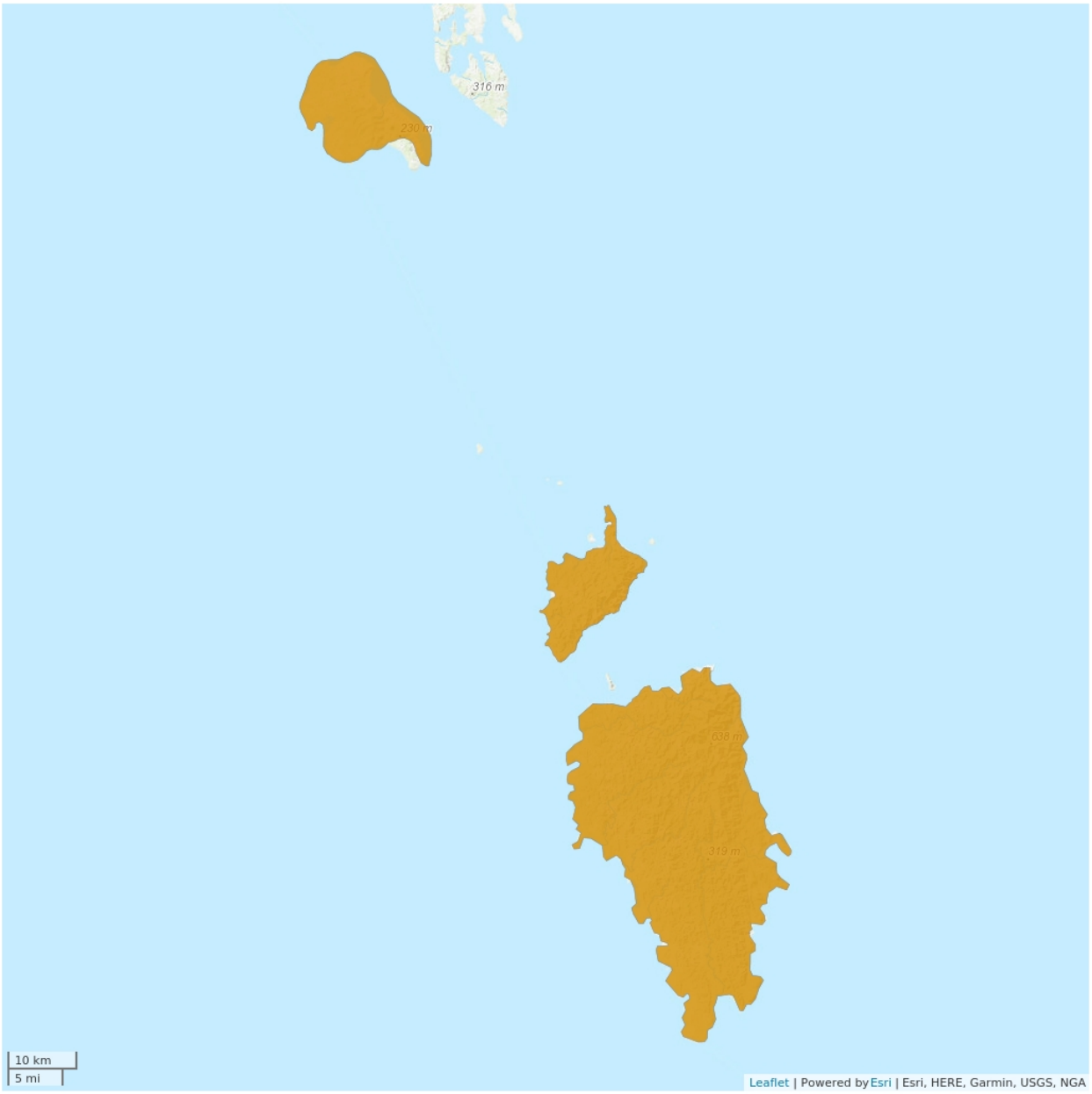
https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T39791A215086130.en

This subspecies occurs on the Nicobar Islands of India (Little Nicobar, Great Nicobar and Katchall), where it is found up to 600 m (Umapathy *et al.* 2003, Molur *et al.* 2003, Groves 2001, Velankar *et al.* 2016). Studies and ethnographic surveys with the human population living in the islands reveal that this particular species may be found on a fourth island (Kondul) but their presence and survey needs to be verified and assessed (and hence is not included in the range map; Mazumder 2022).

Country Occurrence:

Native, Extant (resident): India

Distribution Map



Legend

EXTANT (RESIDENT)

Compiled by:

IUCN (International Union for Conservation of Nature) 2021

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

Population

Molur *et al*. (2003) estimated about 4,800 individuals of *Macaca fasicularis umbrosa*. Following the December 2004 tsunami, the population had declined in all the three islands (Sivakumar 2010). Part of the islands were submerged during the tsunami, and parts of its geographical area became permanently submerged. Habitat was also lost. However, post tsunami, the population shows a recovering trend (Velankar *et al*. 2016) though this could be reflective of the naturally-expected fluctuations in species populations. Rigorous monitoring is required to conclusively establish the population trend of this species.

Current Population Trend: Increasing

Habitat and Ecology **(see Appendix for additional information)**

This subspecies occupies mangroves, swamp, lowland forests and hilly tropical evergreen forests. It is also seen in home gardens and plantations (Umapathy *et al.* 2003, Velankar *et al.* 2016).

After Raffles (1821), the first assessment of the distribution of long-tailed monkeys at the level of range islands was carried out in 2002 by Umapathy *et al.* (2003). Following the cataclysmic event of the tsunami of 2004, a reassessment of coastal long-tailed macaque population was carried out by Sivakumar (2010) and recently by Velankar *et al.* (2016). Basic behavioural studies began more recently, studying social organization, dynamics and birth seasonality (Pal *et al.* 2018, 2019), inter-group interactions (Pal *et al.* 2018), tool-aided extractive foraging behaviour (Pal e*t al.* 2018), object manipulation (Mazumder and Kaburu 2020), and social behaviour (Mishra *et al.* 2020a,b). However, given the recent initiation of behavioural studies on the species, we lack basic understanding of multiple aspects of the species including, but not limited to, its ecological role, feeding ecology across all habitats, nutritive requirements, insular adaptations, cognitive capacities, phylogenetics and phylogeography, population dynamics, etc. The ecology of this species may also be adapting rapidly owing to their interactions with local human communities, and further studies are needed that investigate this aspect of their behaviour, feeding habits, and habitat use.

Systems: Terrestrial

Use and Trade **(see Appendix for additional information)**

The species is not utilised.

Threats **(see Appendix for additional information)**

The population declined following a major tsunami event (Sivakumar 2010), but subsequently it appears to have recovered (Velankar *et al.* 2016).

The primary cause of negative interactions between islanders of Nicobar and long-tailed monkeys in the two islands of Great Nicobar and Katchal, is over coconuts (Mishra *et al.* 2020). The commercial value of coconuts and the dependence of synanthropic groups of monkeys on the same resource have led to this situation. The human population of Great Nicobar Island largely comprises recent migrants from mainland India, who have variable dependence on their allotted agricultural lands, giving rise to a complex sociocultural and socioeconomic community. On the other hand, the indigenous tribe of

Nicobar, the Nicobarese, form the majority in Katchal. The tribe largely abides by its traditional custom of land ownership and is organized around a tribal leader. Regardless, both the settlers and the native human populations harbour intense animosity against monkeys and partake in covert extirpation whenever possible with the belief that monkeys are the most voracious among all coconut pests. Extreme acts of animal cruelty, including poisoning, have also been reported. Of the measures adopted to curb coconut consumption by monkeys, (1) shooting with air guns, (2) launching pebbles with catapults, and (3) unleashing trained guard dogs are the most dominant and exist in complete disregard of the Indian Wildlife Act, 1972. In Katchal alone, eight monkeys were killed and 10 were wounded by dogs during mid-2015 to mid-2017. There is also a growing trend towards vilification of monkeys as pest species, despite millions of years of probable evolutionary co-adaptation between monkeys and coconuts.

At present, one of the largest threats to the long-tailed macaque in Great Nicobar Island is the ongoing large-scale development of the island that will result in the denotification of certain protected areas, deforestation and increased urbanization, thus leading to a further reduction in their habitat and native food sources (Sekhsaria 2021). This project would cover 18% of the island's area, and it would have great impact on the native human population and the wildlife populations living on the island (Bridger 2022). An expected influx of tourism on this island following these proposed development plans could further alter the ecology of the species and the nature of human-macaque interactions.

Conservation Actions **(see Appendix for additional information)**

The species is included in Appendix II of CITES. It is listed on Schedule I, Part I, Indian Wildlife (Protection) Act, 1972 amended up to 2002, and Schedule III, Bangladesh Wildlife (Protection) Act A 1974 (Molur *et al*. 2003).

There is a need for further survey work to assess the current population status of the various island forms. In particular, following the Indian Ocean Island tsunami of December 2004, a targeted survey is required to establish their current status on the Nicobars.

Credits

Assessor(s): Ramakrishna, I., Mishra, P., Mazumder, J. & Pal, A.

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Contributor(s): Kumara, H.N., Kumar, A. & Singh, M.

Authority/Authorities: IUCN SSC Primate Specialist Group

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Disclaimer

External Resources

For Supplementary Material, and 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	Yes
1. Forest -> 1.7. Forest - Subtropical/Tropical Mangrove Vegetation Above High Tide Level	-	Suitable	Yes
1. Forest -> 1.8. Forest - Subtropical/Tropical Swamp	-	Suitable	Yes
14. Artificial/Terrestrial -> 14.3. Artificial/Terrestrial - Plantations	-	Marginal	-

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. Species Stresses -> 2.2. Species disturbance		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.3. Persecution/control	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		

Conservation Actions in Place

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

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No
In-place land/water protection
Conservation sites identified: No
Area based regional management plan: No
Occurs in at least one protected area: No
Invasive species control or prevention: Not Applicable

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Conservation Action in Place
In-place species management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-place education
Subject to recent education and awareness programmes: No
Included in international legislation: Yes
Subject to any international management / trade controls: Yes

Conservation Actions Needed

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

Conservation Action Needed
1. Land/water protection -> 1.2. Resource & habitat protection
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.3. Habitat & natural process restoration
3. Species management -> 3.2. Species recovery
4. Education & awareness -> 4.1. Formal education
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 -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated extent of occurrence (EOO) (km^2): 3217

Distribution
Number of Locations: 3
Lower elevation limit (m): 0
Upper elevation limit (m): 600
Habitats and Ecology
Generation Length (years): 13.9

The IUCN Red List Partnership

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