

*Herpestes javanicus*  [简体中文](#) [正體中文](#)

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Carnivora	Herpestidae

**Common name** newla (Hindi, India), small Indian mongoose (English), Kleiner Mungo (German), mangouste (French), mangus (Hindi), mweyba (Burmese), beji (Bengali)

**Synonym**

**Similar species**

**Summary** The small Indian mongoose (*Herpestes auropunctatus*) has been introduced to many islands worldwide for control of rats and snakes, mainly in tropical areas, but also to islands in the Adriatic Sea. Moreover, it has been introduced successfully in two continental areas: the northeast coast of South America and a Croatian peninsula. Mongooses are diurnal generalist carnivores that thrive in human-altered habitats. Predation by mongoose has had severe impacts on native biodiversity leading to the decline and extirpation of native mammals, birds, reptiles, and amphibians. At least seven species of native vertebrates, including mammals, birds, reptiles, and amphibians, have almost disappeared on Amami-oshima Island since the introduction of the mongoose in 1979. In addition, mongoose carries human and animal diseases, including rabies and human *Leptospira* bacterium.



[view this species on IUCN Red List](#)

## Species Description

The small Indian mongoose has a slender body with short legs. The head is elongated with a pointed muzzle. The tail is robustly muscular at the base and tapers gradually throughout its length. Length of head and body is 509 to 671mm. Ears are short and project only slightly beyond the fur. Feet have five toes with long sharp non-retractile claws. Hair is short. Both sexes have an extensible anal pad with ducted glands lateral to the anus. Fur is soft, pale to dark brown flecked with golden spots. Underside is paler than rest of body. Eyes are amber/brown but are blue green in young animals. There is distinct sexual dimorphism. Females range in length from 509 to 578mm with a mean of 540mm. Body mass at sexual maturity ranges from 305 to 662 g with a mean of 434g. Males have a wider head and more robust body ranging in length from 544 to 671mm with a mean of 591mm (Nellis, 1989).

## Notes

"The genus *Herpestes* contains 10 species (Nowak 1999) and is considered the oldest genus within the order Carnivora, dating back approximately 30 million years (Hinton & Dunn 1967). The native distribution of the small Indian mongoose [*Herpestes auropunctatus* (Hodgson 1836)] stretches from Iraq in the west to Myanmar in the east, and from northern Pakistan southwards throughout the Indian subcontinent. East of Myanmar (near the Salween River), the small Indian mongoose is replaced by the Javan mongoose, *Herpestes javanicus* (E. Geoffroy Saint-Hilaire, 1818), which recently has been recognized as a separate species (G. Veron, personal communication). The small Indian mongoose (but not the Javan mongoose) has been introduced to many islands worldwide for control of rats and snakes, mainly in tropical areas, but also to islands in the Adriatic Sea. Moreover, it has been introduced successfully in two continental areas: the northeast coast of South America (Husson 1960) and a Croatian peninsula (Tvrtkovic & Krystufek 1990; Krystufek & Tvrtkovic 1992). Almost all introduced populations arose from very small numbers of founding individuals, and the introduction history is often well documented" (from Thulin *et al* 2006)

## Lifecycle Stages

Gestation 42-50 days, weaning 5 weeks, sexual maturity 10 months, total life expectancy in wild animals 3-4 years.

## Uses

The small Indian mongoose was introduced as a biocontrol agent to control rats in cane fields but not particularly effective and the enormous cost to native species far outweighed any benefit.

## Habitat Description

The small Indian mongoose is reported to prefer dry habitats and this is supported by the observation that trap success falls to zero in rainy weather in most cases. Habitat preferences in the native range have not been investigated but it seems the species prefers grassland and secondary growth to dense forest. Mongooses are also found around human habitation. Studies on Caribbean islands have shown a clear preference for dry natural areas are preferred over rainy areas. Mongooses reach dense population on Hawai'i and in this case they begin to exploit wet areas (Hays and Conant, 2007). In Mauritius tended to be found in rocky areas, riparian habitats and mature forest over scrub, long grass (sugar cane plantations), short grass and paths (Roy *et al.* 2002). In Puerto Rico male mongooses from the rain forest areas were larger than those in dry forests (Vilella, 1998).

## Reproduction

Placental, sexual. Breeds two or three times a year, no real season, though there are breeding peaks. Two litters of three youngs per female per year. Females can breed from the age of 10 months.

## Nutrition

Small Indian mongoose are generalist carnivores that thrive in human-altered habitats. Diet has not been investigated in the native range but a large number of studies have investigated diet in areas where the species has been introduced. Small Indian mongoose diet normally consists of mammals, birds, herpetofauna, invertebrates and plant material. Proportions of these dietary items vary according to availability and location of the study. Some populations are largely insectivorous; others may eat a diet largely consisting of fruit for part of the year (Hays and Conant, 2007). This high level of dietary flexibility has contributed to the small Indian mongoose's success as an invasive species.

## General Impacts

The small Indian mongoose has had a major impact on native species in the areas where it has been introduced. In most cases the native wildlife in these areas evolved in the absence of predatory mammals so they are particularly threatened by mongoose predation. Species considered to have been driven extinct through mongoose predation are the barred-wing rail (see [Nesoclopeus poecilopterus in IUCN Red List of Threatened Species](#)) in Fiji (Hays and Conant, 2007). The Critically Endangered (CR)' and 'Possibly Extinct' Jamaica petrel (see [Pterodroma caribbaea in IUCN Red List of Threatened Species](#)) suffered drastic decline in numbers in the 19th century presumably due to predation by mongoose (capable of taking incubating adults) and rats (BirdLife International 2004). Mongooses have also been implicated in the decline of many other bird, reptile and mammal species. Mongooses also eat invertebrates but the impact of this predation on invertebrate populations has not been studied.

In the Caribbean, mongooses prey on the 'Critically Endangered (CR)' hawksbill turtle (see [Eretmochelys imbricata in IUCN Red List of Threatened Species](#)) eggs in fragmented beach habitat (Leighton *et al* 2008, 2009, 2010, 2011). Trapping around vulnerable beaches led to much greater breeding success for the turtles (Coblentz and Coblentz, 1985).

Mongooses on Mauritius have been blamed for the extirpation of introduced game birds and the decline of endemic species such as the 'Endangered (EN)' pink pigeon (see [Nesoenas mayeri in IUCN Red List of Threatened Species](#)) (Roy *et al.* 2002).

At least seven species of native vertebrates, including mammals, birds, reptiles, and amphibians, have almost disappeared on Amami-oshima Island since the introduction of the mongoose in 1979. The mongoose has been shown to have a strong negative effect on the 'Endangered (EN)' Amami rabbit (see [Pentalagus furnessi in IUCN Red List of Threatened Species](#)) (Watari *et al.* 2008).

In addition, mongooses are carriers of human and animal diseases, including rabies and human *Leptospira* bacterium.

## Management Info

**Physical:** Trapping is commonly used to remove small Indian mongooses from sensitive areas. It is often very successful at removing animals in the short term. Unfortunately, trapping programmes need to be run almost constantly as mongooses re-colonise trapped areas very quickly (Roy *et al.* 2003; Hays and Conant, 2007). Fencing has been proposed as a possible control method in Mauritius but predator proof fences are expensive and inflexible should the area that needs to be protected change (Roy *et al.* 2002).

**Chemical:** Diphacinone anticoagulant poison has been used to control mongooses in Hawai'i (Hays *et al.* 2007). The use of this toxin has been considered in Mauritius but poisoning methods would have to be adapted to prevent poisoning of non-target species (Roy *et al.* 2002).

**Integrated management:** There is concern in Mauritius that removing mongooses without also removing cats and rats will be disastrous for native species because it may lead to increased rat and cat populations (Roy *et al.* 2002).

## Pathway

Introduced for biological control of rats and snakes in agricultural habitats, from which the animals spread throughout local areas within decades.

## Principal source:

**Compiler:** IUCN SSC Invasive Species Specialist Group

Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

**Review:** Dr. Sugoto Roy (Coordinator); Hebridean Mink Project. Central Science Laboratory Sand Hutton, York UK

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## ALIEN RANGE

[1] ANTIGUA AND BARBUDA	[1] BAHAMAS
[1] BERMUDA	[1] COLOMBIA
[1] COMOROS	[1] COSTA RICA
[1] CROATIA	[1] CUBA
[1] DOMINICAN REPUBLIC	[2] FIJI
[1] FRENCH GUIANA	[1] GRENADA
[2] GUADELOUPE	[1] GUYANA
[1] HAITI	[1] HONDURAS
[1] INDONESIA	[1] JAMAICA
[2] JAPAN	[1] MARTINIQUE
[1] MAURITIUS	[1] PANAMA
[1] PUERTO RICO	[1] SAINT KITTS AND NEVIS
[1] SAINT LUCIA	[1] SAINT MARTIN (FRENCH PART)
[1] SAINT VINCENT AND THE GRENADINES	[1] SURINAME
[1] TRINIDAD AND TOBAGO	[1] UNITED STATES
[2] VIRGIN ISLANDS, BRITISH	[2] VIRGIN ISLANDS, U.S.

**Red List assessed species 11: CR = 3; EN = 1; LC = 7;**

<a href="#">Emoia nigra</a> <b>LC</b>	<a href="#">Emoia trossula</a> <b>EN</b>
<a href="#">Eretmochelys imbricata</a> <b>CR</b>	<a href="#">Gallirallus philippensis</a> <b>LC</b>
<a href="#">Geotrygon mystacea</a> <b>LC</b>	<a href="#">Hypsirhynchus ater</a> <b>CR</b>
<a href="#">Porphyrio porphyrio</a> <b>LC</b>	<a href="#">Porzana cinerea</a> <b>LC</b>
<a href="#">Porzana tabuensis</a> <b>LC</b>	<a href="#">Pterodroma phaeopygia</a> <b>CR</b>
<a href="#">Rallus longirostris</a> <b>LC</b>	

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**Summary:** This report reviews available information on the adverse effects of 14 alien vertebrates considered to be significant invasive species on islands of the South Pacific and Hawaii, supplementing the authors experience with that of other workers.

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- Summary:** The IUCN Red List of Threatened Species provides taxonomic, conservation status and distribution information on taxa that have been globally evaluated using the IUCN Red List Categories and Criteria. This system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those taxa that are facing a higher risk of global extinction (i.e. those listed as Critically Endangered, Endangered and Vulnerable). The IUCN Red List also includes information on taxa that are categorized as Extinct or Extinct in the Wild; on taxa that cannot be evaluated because of insufficient information (i.e. are Data Deficient); and on taxa that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme (i.e. are Near Threatened).
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- Summary:** This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc.
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