

Yellow Mongoose *Cynictis penicillata*



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Namibian conservation status	Least Concern
Global IUCN status	Least Concern since 1996
Namibian range	~764,400 km ² (30% of the global range)
Global range	~2,515,200 km ² , all in southern Africa
Population estimate	Approximately 10.1 to 65.4 million individuals in southern Africa
Population trend	Stable, but becoming less common in bush encroached areas
Habitat	Open grasslands with scattered shrubs and trees in semi-arid to arid savanna, and suburban areas
Threats	<ul style="list-style-type: none">▶ No major threats▶ Bush encroachment reduces their population density▶ Road mortalities (unassessed)▶ Occasionally hunted with dogs and shot when regarded as a pest species▶ Drought conditions, causing decreased insect populations

IDENTIFYING FEATURES

This is a predominantly diurnal, small mongoose. It is distinctly yellower than other mongooses, and is usually distinguished from other species by the white tip at the end of the fairly bushy tail. In central and southern Namibia, fur is orange to yellow with less distinct white tip to tail compared to the redder individuals reported from South Africa. However, individuals from the north-eastern part of their range in Africa including north-eastern parts of Namibia are greyer and can lack the white tail-tip, so there they might be confused with Selous' mongoose, but that species has twice the mass of yellow mongooses and has dark-coloured legs whereas yellow mongoose are evenly coloured over the whole body. Also, the mostly diurnal habits separate it from Selous'.

DISTRIBUTION

Yellow mongooses are endemic to the southern African subregion, occurring apparently continuously across the

western parts of southern Africa in Botswana, Namibia and South Africa. They are common in arid to semi-arid savannas and prefer open and sandy habitat with scattered shrubs and trees, and commonly inhabit suburban areas.

They are widespread in Namibia except for the Namib Desert and the most northern Zambezi and Kavango Regions (Do Linh San *et al.* 2015b).

POPULATION ESTIMATE AND TREND

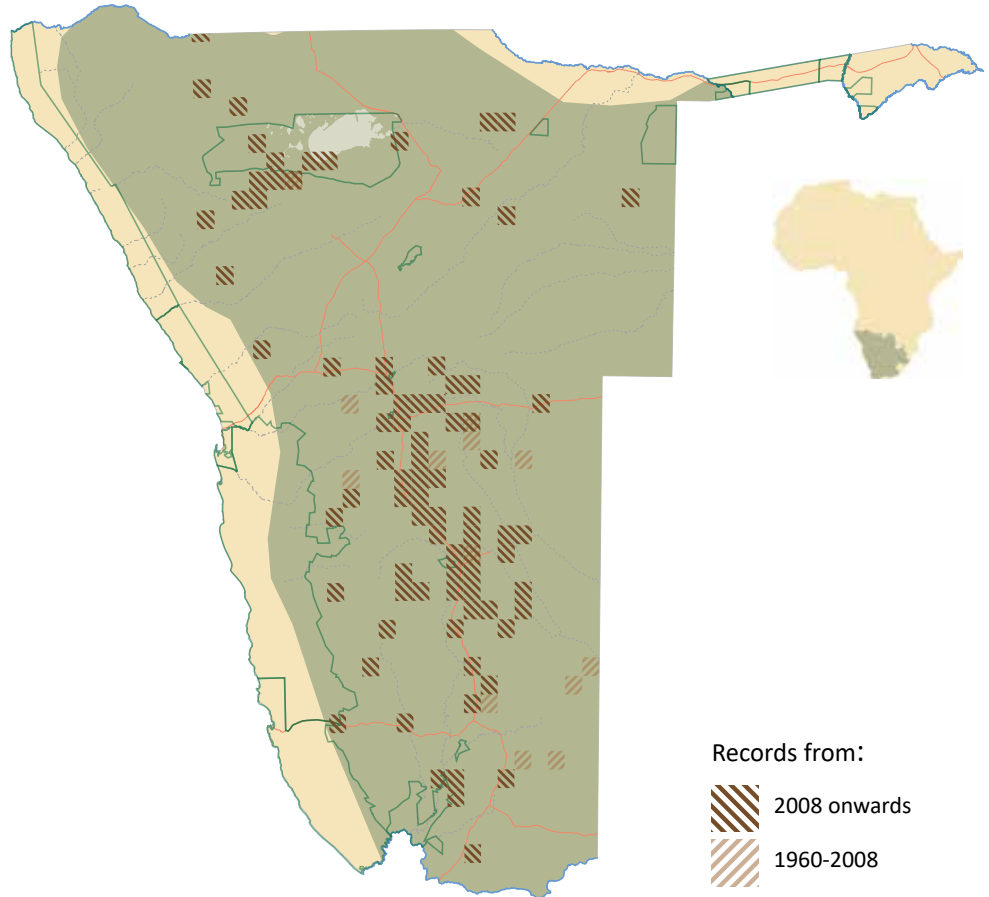
Yellow mongooses are common within protected areas and on farmland, but are becoming less common in rangelands where heavy grazing has led to bush encroachment (Blaum *et al.* 2007a, 2007b).

Local population density estimates vary between 4–200 individuals/km² depending on rainfall, food availability, level of shrub encroachment and probably interspecific competition and predation. The few studies estimating population densities were conducted in South Africa: in the

Distribution records of yellow mongoose, and present estimated area of distribution in Namibia.

Inset: African distribution of yellow mongoose according to IUCN (Do Linh San *et al.* 2015b).

The Namibian distribution in the main map is more up to date and does not necessarily agree with the distribution shown in the inset.



West Coast National Park, Western Cape, a density of 6–7 individuals/km² was estimated (Cavallini 1993, Cavallini & Nel 1995). Similar densities were observed by Do Linh San *et al.* (unpublished data) in the Great Fish River Reserve (Eastern Cape; 4–10 individuals/km²) and by le Roux *et al.* (2008) in the Kuruman River Reserve (Northern Cape; 4–14 individuals/km²). Higher densities of 23–26 individuals/km² were recorded in a population living in farmland near Heidelberg in the Western Cape (Balmforth 2004). The reported density of 133–200 individuals/km² by Earlé (1981) at the Vaal River is very likely an exception. This high density probably emerged since the study site was an island for much of the year.

Using the above density estimates, the population of yellow mongooses in southern Africa is estimated as 10.1 to 65.4 million individuals. This is based on the area of the global range (Do Linh San *et al.* 2015b) multiplied by the minimum and maximum estimated population densities in the various studies, excluding the abnormally high density estimated by Earle (1981).

In Kalahari savanna rangelands in the Northern Cape Province, South Africa, where local predator control (shooting, traps) reduced the density of black-backed jackal, caracal and African wild cat, the abundance of medium-sized

carnivores (small spotted genet, bat-eared fox and Cape fox) increased (Blaum *et al.* 2009a). Such an effect was not recorded for yellow mongooses.

ECOLOGY

The feeding habits of yellow mongooses are opportunistic. They are primarily insectivores, eating termites, beetles and larvae, but they also feed on lizards, snakes and small mammals such as gerbils and mice (Avenant & Nel 1992, Taylor & Meester 1993, Nel & Kok 1999).

Yellow mongooses live in family groups of 4–13 individuals (du Toit 1980, Wenholt 1990, Rasa *et al.* 1992, Blaum *et al.* 2007a) and inhabit communal burrows as temporary shelters or for reproduction (Lynch 1980, Wenholt & Rasa 1994, Blaum *et al.* 2007a). Whilst they den communally and cooperative care of young occurs, they mainly forage alone. Although the yellow mongoose is a species of open habitats, it benefits from the protection of shrubs. Particularly during reproduction and nursing their young, they prefer burrows under the shelter of thorny *Acacia* bushes (e.g. *Acacia mellifera*) that successfully protect the young against avian predation at burrow exits (Blaum *et al.* 2007a). Burrows are sometimes shared with Cape ground squirrels and suricates (Skinner & Chimimba 2005, Waterman & Roth



2007). Yellow mongooses benefit from increased vigilance behaviour of squirrels (Waterman & Roth 2007, Makenbach *et al.* 2013). For example, in trials with a common predator, the puff adder (*Bitis arietans*), squirrels were most active in mobbing the snake (Waterman & Roth 2007). This interspecific association could be mutualistic, since the collective detection of common predators inducing hetero- and conspecific alarm calls elicits vigilance behaviour in both species (Makenbach *et al.* 2013).

In urban environments such as Windhoek, yellow mongooses are common and benefit from anthropogenic food resources and reduced predation pressure (Cronk & Pillay 2018, 2019). In cafeteria-style food choice experiments south of Johannesburg (South Africa), yellow mongooses preferred meat and insects over bread, dog kibble and chicken eggs in the more natural area, while they preferred bread to insects in the more urbanised area (Cronk & Pillay 2018). Particularly during cold winter months, when small mammals and invertebrates decrease in abundance, anthropogenic food items are found frequently in scats of yellow mongooses (Cronk & Pillay 2019).

The yellow mongoose is dioestrus – with potentially two litters per adult female per breeding season. In Namibia, the second oestrus occurs up to two months after birth of the first litter (in mid-December) with the second litter born in mid-February (Rasa *et al.* 1992).

Predators include large snakes, water monitor lizards, black-

backed jackal, and large raptors including martial eagles, Wahlberg's eagles and tawny eagles (Taylor 2013c).

THREATS

There are no major direct threats from humans. In bush encroached areas, where abundance and diversity of insects is low (Blaum *et al.* 2009b, Hering *et al.* 2019), group size and reproductive success of yellow mongooses is lower compared to more open habitats (Blaum *et al.* 2007a, Popp *et al.* 2007). In Kalahari savanna rangelands where bush cover was below 15%, average group size during reproduction was 4.8 individuals caring for 2–3 young. Group size was lower with an average of 2.2 individuals without offspring above this threshold of bush cover. The presence of yellow mongooses in such bush dominated areas can be explained by emigration from neighbouring source populations.

The local impact of road mortality might be a concern but has not been studied.

There is one report indicating that yellow mongooses are sometimes regarded as a pest where they excavate burrows in crop fields (Western Cape, South Africa), and they are consequently hunted with dogs and shot (Balmforth 2004). This did not seem to have had any significant impact on the population, which still lives at a higher density than in natural areas (Balmforth 2004).

Extended drought periods predicted under climate change could depress insect populations such as termites (Davies *et al.* 2015), which may have an impact on yellow mongoose populations.

As a possible vector for rabies, attempts have often been made to regionally eradicate yellow mongooses, but these have not been successful because of rapid recolonisation from neighbouring populations (Zumt & Hassel 1982).

CONSERVATION STATUS

The yellow mongoose is listed as Least Concern on the IUCN Red List (Do Linh San *et al.* 2015b) and has been so since its first assessment in 1996. The species is not included in the CITES Appendices.

ACTIONS

No actions are required.

Assessor: Niels Blaum
Reviewer: Jason Gilchrist

Suggested citation: Blaum N 2022. A conservation assessment of Yellow Mongoose *Cynictis penicillata*. In: NCE, LCMAN, MEFT (eds) 2022. Conservation Status and Red List of the Terrestrial Carnivores of Namibia. Pp 148-150. MEFT, LCMAN & NCE, Windhoek, Namibia