

Galerella pulverulenta

(Wagner, 1839)

(Eng) Cape or small grey mongoose
(Fre) Mangouste grise du Cap

Taxonomic notes

Ascribed by some authors to the genus *Herpestes*, this species is assigned here to the genus *Galerella*, following Wilson & Reeder (1993). The subspecies *nigrata*, *annulata*, and *shortridgei* are assigned here to *G. flavescens* (Lynch, 1981), but see Cavallini (1992) for quite different classification.

IUCN threat category

Not listed.

Available information

Information available on the ecology of the species is reviewed by Cavallini (1992). Several studies on some aspects of the ecology of this mongoose, such as diet and use of space, have been conducted (Cavallini & Nel, 1990a, 1990b; Crawford et al., 1983; Macdonald & Nel, 1986). No specific studies on habitat preference have been carried out, but the species seems to have a wide habitat tolerance (Lynch, 1981; Stuart, 1981). In addition to that, most of the authors mentioned above give a description of the habitat in which the species is found. Data on the species' occurrence are available throughout its distributional range (Feiler, 1990; De Graaff & Rautenbach, 1983; Gelderblom et al., 1995; Lynch, 1983, 1989, 1994; Rowe-Rowe, 1978, 1992). Most of the literature mentioned above also includes some information on the species' ecology. A very detailed account of the ecology of this mongoose is found in Mills & Hes (1997) and in Skinner & Smithers (1990). General information on this species and maps of distribution are also found in Kingdon (1997) and in Stuart & Stuart (1997).

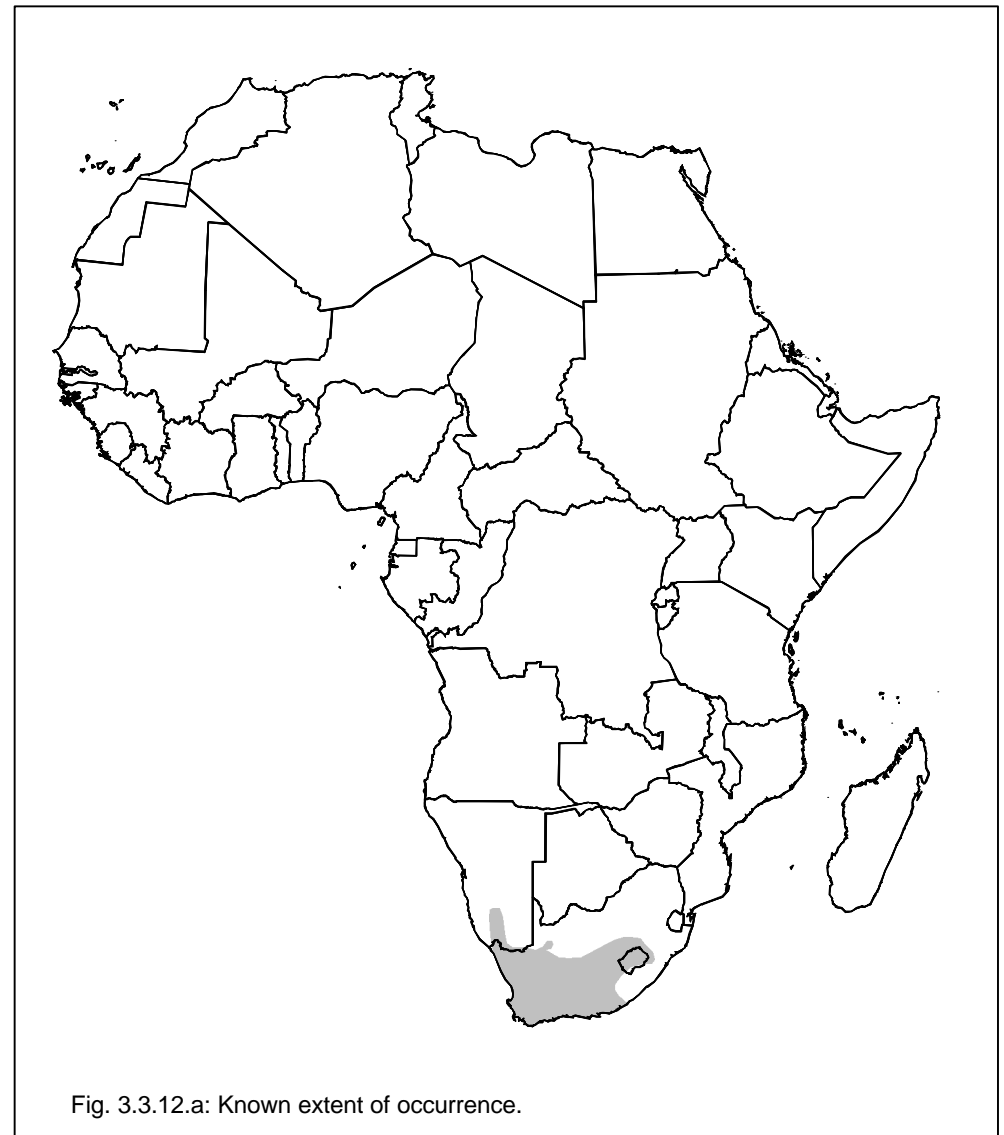


Fig. 3.3.12.a: Known extent of occurrence.

Known extent of occurrence

Endemic to the Southern African subregion, this mongoose is widely distributed south of the 27°S - 28°S in South Africa and Lesotho; in the Orange Free State its distribution appears to be delimited by the Orange river to the North (Wilson & Reeder, 1993; Lynch, 1981, 1983). Fig. 3.3.12.a was obtained from Cavallini (1992), except for the areas between Angola and Namibia, attributed to subspecies *annulatus*, *nigratus* and *shortridgei*. The output was revised by Dr. H. Van Rompaey (20 May '97).

Categorical-discrete (CD) distribution model

Primarily found in the Karoo and Karroid bushveld and grassveld; the species has a wide habitat tolerance, occurring from forest to open country (Skinner & Smithers, 1990; Lynch, 1983; Cavallini, 1992; Kingdon, 1997).

Based on these environmental preferences, the following scores were assigned (Fig. 3.3.12.b) (3.3.12.a):

Score

- 1 Grasslands, shrublands and their mosaics.
- 2 Other savanna types and forests.
- 3 Desert; croplands and altimontane vegetation.

suitable		moderately suitable		unsuitable		Total	
km ²	%	km ²	%	km ²	%	km ²	%
388 706	62	207 722	33	34 476	5	630 904	100

Tab 3.3.12.a: Cumulative size (km²) of areas pertaining to each environmental suitability class within the Extent of Occurrence.

	Number Patches (NP)	Mean Patch Size (MPS) km ²	Patch Size SD (PSSD) km ²	Largest Patch Index (LPI) %	Mean Shape Index (MSI)	Area-Weighted Mean Shape Index (AWMSI)
suitable	207	1 874	24 289	58.76	1.28	10.91
moderately suitable	380	548	5 556	17.54	1.35	7.35
Total AO	35	17 031	98 911	99.61	1.23	4.32

Tab 3.3.12.b: Area of Occupancy fragmentation indexes.

Probabilistic-continuous (PC) distribution model

The output of the probabilistic-continuous (PC) distribution model is shown in Fig. 3.3.12.c.

Validation

No occurrence of the species within the four sample areas.

Comments and conservation issues

The species' EO is mostly restricted to South Africa, where a mosaic of suitable and moderately suitable areas forms a large, central and relatively unbroken AO, as shown by the fragmentation indexes. The PC model confirms this pattern, especially in the eastern part of the range and along its boundaries. Both models indicate a large suitable area found north of the known limit, where the species is likely to compete with other mongooses. Only an insignificant portion (less than 1%) of the total AO is included in the existing protected areas, but the species appears to be not endangered.

SUITABILITY CLASS	inside	outside	Total
suitable	0.09	61.52	61.61
moderately suitable	0.75	32.18	32.92
unsuitable	0.51	4.95	5.46
Total	1.35	98.65	100

Tab 3.3.12.c: Percent of environmental suitability classes within EO (as obtained from the categorical-discrete distribution model) inside and outside the protected areas.

References

- Cavallini P. (1992). *Herpestes pulverulentus*. Mammalian Species: 409, 1-4.
- Cavallini P., Nel J.A.J. (1990a). Ranging behaviour of the Cape grey mongoose *Galerella pulverulenta* in a coastal area. J. Zool., Lond.: 222, 353-362.
- Cavallini P., Nel J.A.J. (1990b). The feeding ecology of the Cape grey mongoose *Galerella pulverulenta* (Wagner 1839) in a coastal habitat. Afr.J.Ecol.28:123-130.
- Crawford P.B., Crawford S.A.H. & Crawford R.J.M. (1983). Some observation on the Cape grey mongoose *Herpestes pulverulentus* in the Tsitsikamma National Park. S.Afr.J.Wildl.Res. 13:35-40.
- De Graaff G., Rautenbach I.L. (1983). A survey of mammals in the newly proclaimed Karoo National Park, South Africa. Ann Mus Roy Afr Cent: 237, 89-99.
- Feiler A. (1990). Distribution of mammals in Angola and notes on biogeography. Vertebrates in the tropics (Peters, G & R Hutter, eds). Museum Alexander Koenig, Bonn.: 221-236.
- Gelderblom C.M., Bronner G.N., Lombard A.T., Taylor P.J. (1995). Patterns of distribution and current protection status of the Carnivora, Chiroptera and Insectivora in South Africa. In: Anonymous (1995). Vertebrate Conservation in South Africa. Papers presented at the ZSSA symposium, July 1994. S. Afr. J. Zool.: 30(3), 103-114.
- Kingdon J. (1997). The Kingdon field guide to African Mammals. Academic Press, London and New York:Natural World.
- Lynch C.D. (1981). The status of the Cape grey mongoose, *Herpestes pulverulentus* Wagner, 1839 (Mammalia: Viverridae). Mem. van die Nasionale Mus., Bloemfontein: 4, 121-168.
- Lynch C.D. (1983). The mammals of the Orange Free State. Mem. van die Nasionale Mus., Bloemfontein: 18, 1-218.
- Lynch C.D. (1989). The mammals of the north-east Cape Province. Mem. van die Nasionale Mus., Bloemfontein: 25, 1-116.
- Lynch C.D. (1994). The mammals of Lesotho. Navorsing van die Nasionale Museum Bloemfontein, Natural Sciences: 10 (4), 177-241.
- Macdonald J.T., Nel J.A.J. (1986). Comparative diets of sympatric small carnivores. S. Afr. J. Wild. Res.: 16(4), 115-121.
- Mills G., Hes L. (1997). The complete book of Southern African mammals. Struik Publishers.
- Rowe-Rowe D.T. (1978). The small carnivores of Natal. Lammergeyer: 25, 1-48.
- Rowe-Rowe D.T. (1992). The carnivores of Natal. Natal Parks, Game & Fish Preservation Board, Pietermaritzburg, Natal, R.S.A.
- Skinner J.D., Smithers R.H.N. (1990). The mammals of the Southern African subregion. University of Pretoria, Pretoria.
- Stuart C., Stuart T. (1997). Field guide to the larger mammals of Africa. Struik Publishers.
- Stuart C.T. (1981). Notes on the mammalian carnivores of the Cape Province, South Africa. Bontebok, 1: 1-58.
- Wilson D.E., D.M. Reeder (Eds) (1993). Mammal species of the World. Second edition. Smithsonian Institution Press, Washington and London.