



South African Red Data Book - Small Mammals

JAJ Meester

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National Programme for Environmental Sciences

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PREFACE

The National Programme for Environmental Sciences is one of several national scientific programmes administered by the CSIR. It is a cooperative undertaking of scientists and scientific institutions in South Africa concerned with research related to environmental problems. It includes research designed to meet purely local needs as well as projects being undertaken in South Africa as contributions to international scientific activities.

The increasing threat to indigenous animal and plant species in South Africa posed by development pressure, by changing vegetation patterns, by habitat destruction, by the invasion of alien species and by commercial exploitation is an environmental problem of enormous magnitude. Steps are therefore being taken within the National Programme for Environmental Sciences to collect information relating to threatened species, to promote research into their biology and to assist in finding means for their conservation. The South African Red Data Book series is an attempt to collate available information on rare and threatened vertebrates and is a part of this programme.

A Red Data Book on birds has been published in this series. Subsequent South African Red Data Book volumes will deal with large mammals, reptiles, amphibians and fish.

ACKNOWLEDGEMENTS

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ABSTRACT

Data sheets are provided on 49 South African small mammal species thought to merit conservation attention, none of which is considered to be endangered.

OPSOMMING

Datavelle word voorsien vir 49 Suid-Afrikaanse klein soogdiersoorte waarvan die bewaring waarskynlik aandag verg, waarvan nie een beskou word as bedreig nie.

INTRODUCTION

The list which follows is provisional, based largely on distributional records of the species concerned, augmented where possible by personal collecting experience. In some cases it is possible that more appropriate collecting methods or fuller understanding of taxonomic relationships with more common species may prove that inclusion in the list is not justified. In other species South Africa represents the limit of geographic distribution, so that they either have a very sparse distribution here or only reach our borders, but may be abundant in other parts of their ranges. No attempt has been made to distinguish between these different cases.

Virtually all the species listed below are regarded as being rare, in terms of the definition accepted by the National Committee for Environmental Sciences (taxa which are localized within a restricted geographical area or habitat or which are thinly scattered over a more extensive range). Possible exceptions are indicated in the text, and my include the bushbaby, *Galago crassicaudatus* and night ape, *G senegalensis*, which are both protected where they occur (and in a few places where they don't), and therefore may presumably be regarded as either endangered (taxa which are in danger of extinction, the survival of which is unlikely if the causal factors now at work continue operating) or vulnerable (taxa believed likely to become endangered if the causal factors now at work continue operating) but may not be rare in terms of the definition.

Two species, which can probably technically be described as rare, because of their restricted distribution and habitat preferences, are nevertheless not included because they are found in large numbers where they do occur and indeed are regarded as pests and as such often exterminated. These are the dune mole, *Bathyergus suillus*, and the blesmol, *Georychus capensis*.

Subspecies have not been considered. If this had been done this list would have been much longer and many poorly-defined names would have been included for no better reason than that they are not better known. However, as our knowledge increases it may become necessary in due course to consider the survival status of different subspecies.

Few proposals have been made for protective measures to be introduced. This is perhaps more correctly the function of the National Committee for Environmental Sciences in the light of the evidence presented, against the background of conservation policy in the different provinces. However, as a general proposal I would suggest, as I have done before in a different context, that the other provinces follow the lead of the Cape Province in protecting bats, or at least the insectivorous species.

The format here used follows that of the IUCN Red Data Book. This has led to the inclusion of some subheadings in the species lists which have less relevance for small mammals than for the better known game animals, or for the faunas of areas which have been more fully studied. In particular, former distribution of small mammals is seldom known, although frequently probably very similar to present distribution, and an estimate of numbers is hardly ever feasible. Reasons for decline in numbers are usually unknown and indeed it is frequently by no means certain or even likely that numbers have declined; and to ascertain numbers in captivity would usually be virtually impossible without a great deal more effort than is practical in a survey such as this. In any case, in many cases the number is likely

to be nil). Breeding rate in the wild and breeding potential in captivity have been loosely interpreted, so that under these headings any available, usually anecdotal, information on any aspect of reproduction is included.

In certain cases, notably in the Cape Province and Orange Free State, animals are technically listed as protected although they do not normally occur there. This comes about when they are members of higher taxa which are protected in their entirety in the province concerned. These cases are indicated by means of a question mark in parenthesis behind the reference to protective measures taken.

In referring to protective measures undertaken, it is accepted that either protection or management of some sort can be taken for granted in National Parks and equivalent Reserves recognized by the provinces concerned. References to protective measures therefore refer to the legal protection accorded to the species listed outside such reserves.

The different provinces differ in their legislation in terms of both species protected and nature of protection given. In the species lists the measures in force in each province are indicated as follows -

TRANSVAAL (information from Dr S M Hirst)

Schedule 1 (protected game)

Animals on this schedule may not be hunted, poisoned, bought, sold, held in captivity or controlled without a permit from the Administrator. This is seldom given. In addition, section 6 of the Ordinance makes provision for the capture and payment of compensation by the Administration in cases where it is necessary for the survival of any species, which is then placed on a nature reserve belonging to the Administration.

Schedule 5 (problem animals)

Species which may be freely hunted by approved control clubs, and receive no protection in terms of other sections of the Ordinance.

NATAL (information from Dr D R M Stewart)

Protected

Permits are required for hunting, capture and keeping in captivity, as well as sale, purchase and export.

Specially protected

Hunting, capture, keeping in captivity, sale, purchase and export again require a permit, which is issued only for very good reasons such as control of damage, scientific research, etc. Higher penalties are imposed than in the case of protected animals.

Note. Under the "Zoos control" chapter of the Ordinance (15/1974), all wild mammals other than those scheduled as game are protected as follows -

- (1) Any wild mammal indigenous to South Africa or South West Africa on the IUCN Red Data List is classed as an endangered mammal, and no-one, other than the Natal Parks Board, may purchase, acquire by any means, possess or keep in captivity any endangered mammal. However, none of the species listed here qualify.
- (2) In the case of all other wild mammals the keeping in captivity, sale, purchase or exchange requires a permit from the Board.

CAPE PROVINCE (information from Dr N Fairall)

Protected

May not be hunted, killed or captured in any way without a permit from the Department of Nature Conservation.

Endangered

As in the case of protected animals, may not be hunted, killed, captured, or kept in captivity without a permit, which is, however, only rarely granted.

Any animal can be added to or deleted from the schedules of endangered or protected animals by Proclamation of the Administrator.

ORANGE FREE STATE (information from Mr O Bourquin)

Schedule 1 (protected animals)

No person shall hunt in any manner whatsoever to kill or capture or attempt to kill or capture; to shoot at, search for, follow or lie in wait with intent to kill, shoot or capture or wilfully disturb, or keep in captivity any animal listed on this schedule except under authority of permit.

Schedule 2 (ordinary game)

A hunting season is determined and proclaimed on an annual basis.

Schedule 3 (wild animals)

May be hunted (as defined in Schedule 1) throughout the year, but may not be captured and kept in captivity without a permit.

Note. No-one may export or import, or keep in captivity, or transport any live indigenous wild animal or game animal without a permit from the Administration.

The regulations are enforced in the Orange Free State by a field staff of district officers totalling 11 men (hopefully to be increased in the future). Fairly successful enforcement is maintained with due regard to the area (+ 130 000 square km) to be covered.

In the Orange Free State reserves (totalling some 50 000 ha) all animals are protected except in cases where species such as *Canis mesomelas* and *Felis caracal* cause disturbance by eating sheep around reserve boundaries.

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FOUR-TOED ELEPHANT SHREW

Petrodromus tetradactylus Peters, 1846

Order INSECTIVORA

Family MACROSCOLIDIDAE

Distinguishing characteristics: A large elephant shrew, with four toes on hind foot; the hallux is lacking. Head and body 165 to 220 mm, tail 130 to 180 mm. Fur is long and soft, rusty-reddish above, bordered from shoulders to sides of rump by a broad band of buffy-greyish. Underparts white. Underside of tail not rough to the touch as in related species (Roberts 1951 p 35, Walker 1968 p 139).

Present distribution: North-eastern Zululand, north of Lake St Lucia and east of Lebombo mountains (Roberts 1951 p 37); also northern and north-eastern Transvaal (Pienaar 1964 p 7). Widespread extralimittally, extending to Kenya and Zaïre (Corbet 1971 p 2).

Former distribution: Not known.

Status: Not uncommon but has a limited distribution in South Africa.

Estimated numbers: Not known.

Breeding rate in wild: "A birth has been recorded in *P tetradactylus* in Northern Rhodesia in July, another in April, and a small fetus in September. In Katanga, fetuses have been recorded in January and July" (Walker 1968 p 139).

Reasons for decline: No decline indicated.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: According to Prof A Andrews (Anatomy Department, University of the Witwatersrand) there are three or four animals in captivity (G de Graaff *in litt*).

Breeding potential in captivity: None or very limited (G de Graaff *in litt*).

Remarks: The inclusion of this species may be questionable, and rests solely on its somewhat limited South African distribution.

CAPE HEDGEHOG

Erinaceus frontalis A Smith, 1831

Order INSECTIVORA

Family ERINACEIDAE

Distinguishing characteristics: Head and body 135 to 265 mm, tail 10 to 50 mm, weight about 400 to 1100 g. Body, except face, legs and ventral surface, covered with dense spines (Walker 1968 p 130). Colour brown, speckled with white and buffy, tail and underparts dark brown to greyish (Roberts 1951 p 38).

Present distribution: The grassveld districts of the Transvaal and Orange Free State highveld, across the Drakensberg into Natal, southwards to the Albany district, westwards over the Upper Karroo, in the Cradock, Hanover, Steynsburg, Prieska, and Griqualand West districts (Roberts 1951 p 38). Fort Beaufort and Cathcart districts (P Swanepoel *in litt*). Widespread in the Transvaal and Orange Free State (N H G Jacobsen *in litt*). Apparently does not occur at all in Natal (D T Rowe-Rowe *in litt*). Widespread extraliminally.

Former distribution: Not known.

Status: Rare; while widespread it is seldom encountered (Shortridge 1934).

Estimated numbers: Not known.

Breeding rate in wild: Normally four young per litter, but as many as six or seven have been recorded (Roberts 1951 p 38).

Reasons for decline: No decline established (but see Remarks below), but their popularity as pets and as food for Africans may constitute a threat.

Protective measures already taken: Transvaal - Schedule 1; Cape Province - protected; Orange Free State - Schedule 1 (P J le Roux *in litt*).

Measures proposed: None.

Number in captivity: Not known. Many are undoubtedly kept illegally (G de Graaff *in litt*).

Breeding potential in captivity: Low. A female kept in a small cage gave birth to five young (P J le Roux *in litt*). A lady on our staff saved a pregnant female from marauding dogs in the vicinity of Skeerpoort (West of Pretoria). Apparently, the animal was virually full-term and par-turated. Nine young were born, March-April. She managed to return the mother as well as two offspring to the wild. A tendency towards cannibalism and paresis was noticed (G de Graaff *in litt*).

Remarks: It must have declined. When I was a child it was readily obtained as a pet; very few children know it today (N Fairall *in litt*). The distribution of former grassveld must have limited its present distribution (N Fairall *in litt*).

MAQUASSI MUSK-SHREW

Crocidura maquassiensis Roberts, 1946

Order INSECTIVORA Family SORICIDAE

Distinguishing characteristics: A very small shrew, with head and body 54,5 to 74 mm, tail 43 to 46 mm, condylo-incisive length 17,6 to 18,6 mm. Greyish-brown above, grey below, with broad braincase and interorbital region. M₃ with conical hypoconid, entoconid well-developed (Meester 1963 p 33).

Present distribution: Known only from Maquassi and Blouberg, Transvaal. Extralimitally recorded from Inyanga, Rhodesia (Meester 1963 p 97).

Former distribution: Not known.

Status: Very rare; only three specimens known, one of these from Rhodesia.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

YELLOW GOLDEN MOLE

Calcochloris obtusirostris (Peters, 1851)

Order INSECTIVORA

Family CHRYSOCHLORIDAE

Distinguishing characteristics: Skull without temporal bullae, length about 21 to 24,5 mm, broad, with breadth/length index 69 to 76 per cent; nine upper and lower teeth in each jaw half; P¹ and P₁ molariform; forefoot with two well-developed claws; bases of hairs yellow (Meester 1971 p 1-2).

Present distribution: Zululand north of the Umfolosi river (Roberts 1951 p 115); north-eastern Kruger National Park (Brynard & Pienaar 1960 p 55). Extralimitally Mocambique and south-eastern Rhodesia (Meester 1971 p 5). Ndumu Game Reserve, Zululand (P Swanepoel *in litt*).

Former distribution: Not known.

Status: Rare; limited distribution in South Africa. However, in the Kruger National Park "there are sufficient signs that these animals occur everywhere and in great numbers in the Malonga and Wambia Sandveld" (Brynard & Pienaar 1960 p 55).

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: A fossil species, *hamiltoni*, has been described by De Graaff (1957). The fossil form is substantially larger than the extant form (G de Graaff *in litt*).

GIANT GOLDEN MOLE

Chrysofalax trevelyani (Günther, 1875)

Order INSECTIVORA

Family CHRYSOCHLORIDAE

Distinguishing characteristics: The largest of all golden moles, with head and body 198 mm and more, skull length 40 mm and more (Meester 1971 p 2). Fur coarse, dark yellowish-brown in colour.

Present Distribution: Known only from Pirie Forest, King William's Town to Port St Johns district, eastern Cape Province (Meester 1971 p 2). King William's Town, East London and Komgha (Haga Haga) districts (P Swanepoel *in litt*).

Former distribution: Not known.

Status: Rare; limited distribution and seldom encountered where it occurs.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: Farmers, etc seem to think that they have become scarcer in recent years. Caused by droughts? (P Swanepoel *in litt*).

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: It is at present being considered to proclaim the whole Pirie forest a Nature Conservation area (Nature Reserve?) (N Fairall *in litt*).

VAN ZYL'S GOLDEN MOLE

Cryptochloris zyl Shortridge & Carter, 1938

Order INSECTIVORA

Family CHRYSOCHLORIDAE

Distinguishing characteristics: With inconspicuous temporal bullae; frontal region of skull greatly expanded; first foreclaw nearly as long as second; differs from the related *C wintoni* (Broom, 1907) in being darker, browner in colour, with head of malleus elongated (Meester 1971 p 1-2).

Present distribution: Known only from Compagnies Drift, Lambert's Bay, south-western Cape Province (Meester 1971 p 3).

Former distribution: Not known.

Status: Rare; known distribution very limited, but occurs in fair numbers where found.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: Similar to, and perhaps conspecific with, the related *C wintoni* (Ellerman, Morrison-Scott & Hayman 1953 p 39), in which case the species cannot be regarded as rare.

DE WINTON'S GOLDEN MOLE

Cryptochloris wintoni (Broom, 1907)

Order INSECTIVORA

Family CHRYSOCHLORIDAE

Distinguishing characteristics: With inconspicuous temporal bullae; frontal region of skull greatly expanded; first foreclaw nearly as long as second; differs from the related *C zyli* Shortridge & Carter, 1938, in being paler, more fawn-coloured, with head of malleus bulbous (Meester 1971 p 1-2).

Present distribution: Known only from Port Nolloth, Little Namaqualand (Meester 1971 p 2).

Former distribution: Not known.

Status: Rare; known distribution very limited, but occurs in fair numbers where found.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: The related *C zyli* may be only subspecifically distinct, in which case the range of the species will be somewhat extended, so that it cannot be described as rare.

VISAGIE'S GOLDEN MOLE

Chrysochloris visagiei Broom, 1950

Order INSECTIVORA

Family CHRYSOCHLORIDAE

Distinguishing characteristics: With temporal bullae; first foreclaw much shorter than second; colour pale yellowish-buffy; head of malleus robust and broad, width about half of length (Meester 1971 p 1-3).

Present distribution: Known only from the type specimen, collected at Gouna, 54 miles east of Calvinia (Meester 1971 p 3).

Former distribution: Not known.

Status: Rare; known occurrence very limited.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: The unusual specimen on which this species is based may be merely an aberrant *C asiatica* (Linnaeus, 1758) (Meester 1971 p 3), in which case it cannot be described as rare.

GRANT'S DESERT GOLDEN MOLE

Eremitalpa granti (Broom, 1907)

Order INSECTIVORA

Family CHRYSOCHLORIDAE

Distinguishing characteristics: A small species, with long greyish-fawn fur, and skull short (20,6 mm and less in length) but broad (16,1 to 18,2 mm wide, with breadth/length index 85 to 90 per cent) and lacking temporal bullae. Forefoot with three well-developed claws, first not much smaller than second and third (Meester 1971).

Present distribution: Southwestern Cape Province at Lambert's Bay and Little Namaqualand (Port Nolloth and Garies) (Ellerman, Morrison-Scott & Hayman 1953). Extralimitally the Namib desert of South West Africa (Meester 1971).

Former distribution: Not known.

Status: Rare; known distribution limited in extent and localized, although not uncommon where it occurs.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: None. The habitat in which it occurs in South West Africa protects it ideally (C G Coetzee *in litt*).

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

JULIANA'S GOLDEN MOLE

Amblysomus julianae Meester, 1972

Order INSECTIVORA

Family CHRYSOCHLORIDAE

Distinguishing characteristics: A small, pale species, with colour cinnamon-brown above and on sides, and lacking the rich reddish-brown midback of the related *A hottentotus* (A Smith, 1829). Greatest skull length 21,5 to 23,5 mm, braincase with breadth/length index 67 to 71 per cent, upper toothrow 104 to 105 per cent of palate length in available specimens (Meester 1971 p 6).

Present distribution: Known only from east of Pretoria and Numbi Gate, Kruger National Park.

Former distribution: Not known.

Status: Rare; known distribution very limited.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established, but habitat destruction by property development around Pretoria is inevitable.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

STRAW-COLOURED FRUIT-BAT

Eidolon helvum (Kerr, 1792)

Order CHIROPTERA

Family PTEROPODIDAE

Distinguishing characteristics: Largest of all continental African bats, with forearm about 110 to 130 mm, colour generally tawny with dorsal fur restricted to narrow median band, sharply demarcated from naked wing membranes; short tail, occipital region not tubular (Hayman & Hill 1971 p 5).

Present distribution: Isolated specimens have been recorded from scattered localities all over South Africa, including sea off Hondeklip Bay and Port Nolloth, Little Namaqualand; Koegas, Bedford, Steynsburg, Douglas, Griqualand West, Harrismith, Pretoria, Rustenburg (Roberts 1951 p 54). Barberspan (N H G Jacobsen *in litt*). Extralimitally widespread, occurring over nearly the whole continent as a migrant (Roberts 1951 p 54), and particularly common in central African forests, for example at Kampala, Uganda (Hayman & Hill 1971 p 11).

Former distribution: Not known.

Status: Rare; although occurring over a wide area, visits South Africa only as an occasional migrant, and therefore very seldom encountered and very rare in collections.

Estimated numbers: Not known.

Breeding rate in wild: In Cameroun, and perhaps in Zaïre, *E helvum* apparently breeds from September through November and gives birth about February (Walker 1968 p 219). In Uganda fertilization occurred in April-May, but ova were not implanted until October-November. Births occurred in February-March, after a four-month gestation period. One young was born at a time (Mutere 1967).

Reasons for decline: No decline established.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

EGYPTIAN TOMB BAT

Taphozous perforatus E Geoffroy, 1818

Order CHIROPTERA

Family EMBALLONURIDAE

Distinguishing characteristics: Free terminal portion of tail emerges above middle of upper surface of interfemoral membrane; four lower incisors, two minute upper incisors (often absent); skull with deep frontal depression; total skull length about 20 to 22,5 mm; bullae incomplete; no gular patch in either sex; forearm 60 to 67 mm; dorsally pale, ventrally dusky, wings dark or pale (Hayman & Hill 1971 p 13-15).

Present distribution: So far collected only in the extreme eastern part of the Bamangwato Reserve, Botswana, on the Transvaal border (Smithers 1971 p 59), but practically certain to occur also in the Transvaal. Extralimitally widespread over Africa and India.

Former distribution: Not known.

Status: Rare on present evidence; presence in South Africa not proven.

Estimated numbers: Not known.

Breeding rate in wild: Breed throughout the year (Walker 1968 p 241).

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

HAIRY SLIT-FACED BAT

Nycteris hispida (Schreber, 1774)

Order CHIROPTERA

Family NYCTERIDAE

Distinguishing characteristics: Has a longitudinal facial slit running from the nose backwards, large ears (17 mm) and tail much the same length as head and body, with flying membrane extending from ankles. Small, with forearm 38 mm, upper and lower incisors trifold (Roberts 1951 p 69).

Present distribution: "Recorded from Port St John's, Pondoland (Hewitt 1931)" (Ellerman, Morrison-Scott & Hayman 1953 p 52). Umdoni, Natal South Coast (R K La Val, *pers comm*). Possibly also occurring in Zululand (Roberts 1951 p 71), although the evidence for this is slender. Extralimitally extends to Senegal in the west, Somalia in the east (Hayman & Hill 1971 p 18).

Former distribution: Not known.

Status: Rare; very limited South African distribution, and virtually unrepresented in collections.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

LESSER WOOLLY BAT

Kerivoula lanosa (A Smith, 1847)

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Nostrils simple, tail does not project noticeably beyond interfemoral membrane (Roberts 1951 p 58); ears funnel-shaped, with deep emargination below tip; tragus long, narrow, sharply pointed; braincase high and rounded; forearm 32 to 36 mm; skull 13,5 mm or less; colour brownish or greyish brown above and below, with conspicuous frosting of dorsal fur (Hayman & Hill 1971 p 31, 50).

Present distribution: Southern Cape Province, at Knysna and Pirie, near King William's Town; northern Zululand (Ellerman, Morrison-Scott & Hayman 1953 p 88); Sibasa, north-eastern Transvaal (Roberts 1951 p 76); extralimitally ranges to Malawi, Zambia and southern Zaïre (Ellerman, Morrison-Scott & Hayman 1953 p 88).

Former distribution: Not known.

Status: Rare; apparently widespread (but see Remarks below), but sparsely distributed (Roberts 1951 p 71).

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: Cape Province - protected.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: As here treated the northern subspecies *lucia* Hinton, 1920, is included in *lanosa* (see also Roberts 1951, Ellerman, Morrison-Scott & Hayman 1953). However, most modern authors include *lucia* in *harrisoni* Thomas, 1901 (Hayman & Hill 1971, Ansell 1960). In this case both *lanosa* (Southern Cape) and *harrisoni lucia* (northern Zululand and north-eastern Transvaal northwards) would have restricted distributions in South Africa.

DAMARA WOOLLY BAT

Kerivoula argentata Tomes, 1861

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Nostrils simple, tail does not project noticeably beyond interfemoral membrane (Roberts 1951 p 58); ears funnel-shaped, with deep emargination below tip; tragus long, narrow, sharply pointed; braincase high and rounded; forearm 34 to 39 mm; skull 15 mm or more; colour above bright reddish-chestnut, below whitish or buffy (Hayman & Hill 1971 p 31, 50).

Present distribution: Northern Zululand littoral (Roberts 1951 p 79). Extralimittally to Zaïre in the west, southern Kenya in the east (Hayman & Hill 1971 p 51).

Former distribution: Not known.

Status: Rare; limited distribution in South Africa, and sparsely distributed where it occurs (Shortridge 1934 p 71).

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

LESUEUR'S WING-GLAND BAT

Myotis lesueuri (Roberts, 1919)

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Nostrils simple, tail does not project noticeably beyond interfemoral membrane (Roberts 1951 p 58); six upper, six lower cheekteeth on each side; size small, forearm 34,5 mm; wings with glands; first two upper premolars reduced and crowded together laterally (Hayman & Hill 1971 p 31-33).

Present distribution: Lormarins, Frenchhoek Valley, Paarl (Roberts 1951 p 81) and near Citrusdal (Shortridge 1942 p 79).

Former distribution: Not known.

Status: Rare; limited distribution in south-west Cape, and nowhere common.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

ANGOLA WING-GLAND BAT

Myotis seabrai (Thomas, 1912)

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Nostrils simple, tail does not project noticeably beyond interfemoral membrane (Roberts 1951 p 58); six upper, six lower cheekteeth on each side; size smaller, forearm about 32 to 33 mm; wings with glands; first two upper premolars reduced and crowded together laterally (Hayman & Hill 1971 p 31-33).

Present distribution: "Orange River at Goodhouse (Shortridge)" (Roberts 1951 p 80). Extralimitally South-West Africa and Angola (Hayman & Hill 1971 p 33).

Former distribution: Not known.

Status: Rare; the only known record lies on the border with South-West Africa.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

WELWITSCH'S BAT

Myotis welwitschi (Gray, 1866)

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Nostrils simple, tail does not project noticeably beyond interfemoral membrane (Roberts 1951 p 58); six upper and lower cheekteeth on each side; size larger, forearm above 52 mm; wing, interfemoral membrane and forearm conspicuously particoloured, red and black (Hayman & Hill 1971 p 31-32).

Present distribution: Transvaal and Orange Free State. Extralimitally as far as Zaire in the west, Ethiopia in the east (Hayman & Hill 1971 p 33).

Former distribution: Not known.

Status: Rare; although widespread occurs very sporadically, and very seldom encountered.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

BUTTERFLY BAT

Glauconycteris variegata (Tomes, 1861)

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Fleshy lobe at base of mouth, connected by a ridge with lobe of ear; ears rather short, not pointed, with short, broad tragus, narrow at base; flying membrane reticulated; skull broad, with swollen braincase, slightly above level of short, broad muzzle; two upper incisors, one large upper premolar; three trifold lower incisors; two lower premolars (Roberts 1951 p 92).

Present distribution: North-eastern Zululand at Manaba (Roberts 1951 p 93); extralimitally widespread, extending to Somalia and Ethiopia in the east, Ghana in the west (Hayman & Hill 1971 p 47).

Former distribution: Not known.

Status: Rare; limited distribution in South Africa. "It is apparently scarce and local" (Shortridge 1934 p 69).

Estimated numbers: Not known.

Breeding rate in wild: "... it is stated that births in *G variegata* in the Congo may be restricted to March and April ... The number of young is one or two." (Walker 1968 p 361).

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

ALOE BAT

Eptesicus zuluensis Roberts, 1924

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Nostrils simple, tail does not project noticeably beyond interfemoral membrane (Roberts 1951 p 58); four upper, five lower cheekteeth; two upper incisors; ears less than 18 mm; small, forearm 35 mm or less; wing membranes dark; cranial portion of skull elevated above rostrum (Hayman & Hill 1971 p 31-42).

Present distribution: Known from Umfolosi Game Reserve, Zululand, and Leydsdorp, eastern Transvaal (Roberts 1951 p 84-85). Extralimitally Botswana, South-West Africa (Ellerman, Morrison-Scott & Hayman 1953 p 77) and Zambia (Ansell 1960 p 20), and probably more widespread.

Former distribution: Not known.

Status: Rare; on present evidence, although widespread, only known from two South African localities, and not abundant at either of these.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: The inclusion of this species may not be justified; further collecting may well produce material from more localities and over a wider area.

HORNY-SKIN BAT

Eptesicus notius (G M Allen, 1908)

Order CHIROPTERA

Family VESPERTILIONIDAE

Distinguishing characteristics: Nostrils simple, tail does not project noticeably beyond interfemoral membrane (Roberts 1951 p 58); ears less than 18 mm; four upper, five lower cheekteeth; two upper incisors; colour brown above and below; forearm, hind legs and tail sprinkled with horny excrescences on upper surface (Hayman & Hill 1971 p 31-45).

Present distribution: Known only from the type specimen collected in Cape Town (Roberts 1951 p 95). Related species *E floweri* (de Winton, 1901) and *E lowei* Thomas, 1915, occur in the Sudan (Hayman & Hill 1971 p 45).

Former distribution: Not known.

Status: Rare; known only from a single specimen.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

LARGE FREE-TAILED BAT

Otomops martiensseni (Matschie, 1897)

Order CHIROPTERA

Family MOLOSSIDAE

Distinguishing characteristics: A large bat with tail projecting beyond edge of interfemoral membrane; forearm 62 to 73 mm; large ears, 38 to 40 mm, conjoined on extended snout; conspicuous bicolored dorsal pelage pattern, with pale collar separating dark anterior and posterior regions; prominent vertical projection on zygoma (Haymann & Hill 1971 p 55).

Present distribution: Known from the type (Haymann & Hill 1971 p 97) and one other specimen from Durban, and recently encountered in fair numbers in a house loft at Warner Beach, South Coast (L R Wingate, *pers comm*). Probably occurs more extensively along the South Coast. Extralimitally Madagascar, Rhodesia, Angola, Tanzania, Kenya and Zaïre (Hayman & Hill 1971 p 56).

Former distribution: Not known.

Status: Rare; very limited distribution in South Africa and by no means common where it occurs.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

NATAL WRINKLE-LIPPED BAT

Tadarida acetabulosa (Hermann, 1804)

Order CHIROPTERA

Family MOLOSSIDAE

Distinguishing characteristics: Tail projecting considerably beyond edge of interfemoral membrane; four upper post-canine cheek teeth; M³ not reduced; upper incisors widely separated by large palatal emargination; lower incisors 3-3, ears separate, with anterior margin slightly emarginated below pointed tip; size small, forearm c 38 mm, skull length 14 to 15 mm; colour uniformly dark brown above and below (Haymann & Hill 1971).

Present distribution: Known only from the type locality of *T a natalensis* (A Smith, 1847), near Durban (Roberts 1951 p 104-105). Extralimitally Ethiopia, Madagascar, Mauritius, Réunion.

Former distribution: Not known.

Status: Rare; "the present form (*T a natalensis*) has not been procured again since it was discovered by Smith near Durban" (Roberts 1951 p 105).

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected (?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

TRANSVAAL FREE-TAILED BAT

Tadarida africana (Dobson, 1876)

Order CHIROPTERA

Family MOLOSSIDAE

Distinguishing characteristics: Tail projecting considerably beyond edge of interfemoral membrane; five upper post-canine teeth, lower incisors 2-2, M³ not reduced; palatal emargination well-developed; skull very broad and heavy, particularly in rostral region, total length 23,5 to 25,7 mm in known specimens; deep, sharply defined basisphenoid pits; lower canines almost touching at base; ears separate; forearm 63 to 66 mm (Hayman & Hill 1971).

Present distribution: Known only from the type specimen from the Transvaal, no exact locality (Roberts 1951 p 101). Extralimitally Malawi, eastern Zaïre, Kenya, southern Sudan and Ethiopia (Hayman & Hill 1971 p 65).

Former distribution: Not known.

Status: Rare; "only five examples of this species are known at present" (Hayman & Hill 1971 p 65) over the whole of Africa.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected(?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

SUNDEVALL'S FREE-TAILED BAT

Tadarida midas (Sundevall, 1843)

Order CHIROPTERA

Family MOLOSSIDAE

Distinguishing characteristics: Free terminal portion of tail projecting beyond hind margin of interfemoral membrane, stout; five upper post-canine teeth; lower incisors 2-2 or rarely 3-3; ears conjoined at base; forearm 58 to 66 mm; skull length 26 to 28 mm (Hayman & Hill 1971 p 13-14, 58-59).

Present distribution: Near Skukuza, Kruger National Park (Pienaar 1972 p 91); + 30 miles East of Messina, north-eastern Transvaal (Dippenaar *in litt*). Extralimitally widespread in Africa and Arabia.

Former distribution: Not known.

Status: Rare; very limited occurrence in South Africa.

Estimated numbers: Not known.

Breeding rate in wild: One or two young per birth (Verschuren 1957).

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected(?)

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

SENEGAL GALAGO

Galago senegalensis A Smith, 1836

Order PRIMATES

Family LORISIDAE

Distinguishing characteristics: Size smaller, total length usually 400 to 500 mm, greatest skull length under 55 mm. Tail thinner, less bushy. Skull higher, rostrum weaker, shorter, with nasal bones truncated behind. No sagittal crest. P¹ and P² subequal (Ellerman, Morrison-Scott & Hayman 1953, Osman Hill & Meester 1971).

Present distribution: "... apparently confined to the Transvaal where it occurs from the Marico, Rustenburg and Pretoria districts to the Zoutpansberg and the Kruger National Park; Shortridge stated that it had been recorded from the Vaal River, near Parys" (Ellerman, Morrison-Scott & Hayman 1953 p 91) Northern Cape? (N Fairall *in litt*). Extralimitally to Somalia in the east, Senegal and Gambia in the west (Osman Hill & Meester 1971 p 3).

Former distribution: More or less the same as present distribution, though present distribution is smaller in extent, probably on account of organized forestry leading to removal of indigenous vegetation (trees) (G de Graaff *in litt*).

Status: Probably not rare or endangered. Occurs extensively in reasonable numbers.

Estimated numbers: Not known.

Breeding rate in wild: One to three, usually two, young born at a time (Doyle, Pelletier & Bekker 1967 p 172). Mate in winter and spring, infants born October-November and January-February. Gestation period 123,5 days. Postpartum oestrus occurs (Doyle 1974).

Reasons for decline: No decline proved, but frequently caught as pets, and this could constitute a threat. Large-scale clearing of bushveld areas for agriculture is sure to restrict distribution and numbers (N H G Jacobsen *in litt*).

Protective measures already taken: Transvaal - Schedule 1. Cape Province - protected (?). Orange Free State - Schedule 3.

Measures proposed: None.

Number in captivity: Some in zoos, and doubtless also illegally as private pets.

Breeding potential in captivity: Less noticeable breeding season. Will not breed, or will eat young if diet is protein-deficient (Doyle 1974). January through December 1972 : 22 born (International Zoo Yearbook 1973) (G de Graaff *in litt*).

Remarks: Probably not endangered, or even rare, but is included because of the dangers inherent in its popularity as a pet, and the fact that it is on the protected list in the Transvaal and Orange Free State (as well as the Cape Province where it may not occur naturally).

LARGE GREY GALAGO

Galago crassicaudatus E Geoffroy, 1812

Order PRIMATES

Family LORISIDAE

Distinguishing characteristics: Size larger, total length 600 mm and more, greatest skull length over 65 mm. Tail thicker and bushier. Adult skull with sagittal crest, rather lower than in *G senegalensis*, with strong rostrum. P¹ higher than P² (Ellerman, Morrison-Scott & Hayman 1953, Osman Hill & Meester 1971).

Present distribution: Natal (Zululand, Durban); Woodbush and Tzaneen, north-eastern Transvaal; Kruger National Park (Ellerman, Morrison-Scott & Hayman 1953 p 92). Pafuri, Kruger National Park (N Fairall *in litt*). Waterberg, and more common along the rivers flowing down the Transvaal Drakensberg (N H G Jacobsen *in litt*). Extralimitally confined to eastern part of continent.

Former distribution: Not known.

Status: Rare; comparatively limited distribution and nowhere abundant, but probably not endangered.

Estimated numbers: Not known.

Breeding rate in wild: Two, sometimes three young are born at a time (G A Doyle *in litt*).

Reasons for decline: Not known.

Protective measures already taken: Natal - protected; Transvaal - Schedule 1; Cape Province - protected (?); Orange Free State - Schedule 3(?).

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: This species is probably in no danger, but is included because it is already protected in Natal and the Transvaal, and also the Orange Free State and Cape Province, where it probably does not occur naturally.

SAMANGO MONKEY

Cercopithecus mitis Wolf, 1822

Order PRIMATES

Family CERCOPITHECIDAE

Distinguishing characteristics: "Hands and forearms, hind-feet and more than half the tail black; average size normally larger; skull with the central posterior process of the palate longer (usually 5 to 6 mm.)" (Roberts 1951 p 2).

Present distribution: "... Zululand, Natal, the eastern Transvaal (Woodbush and Pilgrims Rest district), and the eastern Cape Province ('in densest forest at Pirie and in Pondoland, also at the coast near East London' (Hewitt 1931)), Stutterheim (British Museum)" (Ellerman, Morrison-Scott & Hayman 1953 p 98). Mount Coke, Frankfurt and forest South-east of King William's Town; Katberg forest, Fort Beaufort district; Peddie district (P Swanepoel *in litt*). Eastern and north-eastern Transvaal (Letaba, Soutpansberg, Sibasa and Pilgrim's Rest districts) (N H G Jacobsen *in litt*). Widespread extraliminally.

Former distribution: Unknown but undoubtedly wider.

Status: Rare; localized distribution in isolated forest patches, and vulnerable to destruction of these. Restricted in Transvaal to isolated forest patches, of which the largest number occur in the Woodbush where some protection is afforded the species within the indigenous forest area; but it is persecuted in the non-indigenous pine plantations due to its destruction of the pine trees (N H G Jacobsen *in litt*). The Samango is otherwise more common than is generally known and is also known to occur in the Sibasa district, and also Soutpansberg district (N H G Jacobsen *in litt*).

Estimated numbers: The estimated numbers in the Entambeni Forest Reserve were determined in 1970, and 17 troops were counted averaging 15 to 25 animals each (P J le Roux *in litt*). According to James Scorer (Mammal Research Institute) - Soutpansberg 600 +; Woodbush (Tzaneen) 100 +; Ofcolaco 100 to 150 + (G de Graaff *in litt*).

Breeding rate in wild: Not known.

Reasons for decline: Gradual destruction of forests and apparently deliberate extermination by forestry interests (P J le Roux *in litt*). In the Transvaal destruction of forest is accelerating due to additional areas being included in Bantu Homelands, mainly between Ofcolaco and Blyde (N H G Jacobsen *in litt*). (But see comments below).

Protective measures already taken: Transvaal - Schedule 1; Natal - protected; Cape Province - protected; Orange Free State - Schedule 3.

Measures proposed: None.

Number in captivity: A questionnaire survey of the numbers in captivity revealed that none were kept in the larger zoos and medical institutes (Stoltz) (P J le Roux *in litt*).

Breeding potential in captivity: Not known.

Remarks: In the Vera area of the (Entambeni Forest) Reserve, the monkeys debarked roughly 30 ha of pine plantations. Control measures applied by foresters on a permit from the Transvaal Provincial Administration resulted in the destruction of about 50 animals annually (P J le Roux *in litt*). The apparent facts were that the Department of Forestry wanted a permit to shoot out a colony occupying a patch of indigenous forest surrounded by a young pine plantation, which they were extensively damaging. The Division for Nature Conservation refused a permit, Mr Keith investigated the matter and a solution was found by removal of pine trees in the immediate vicinity of the forest patch. The plantation was subsequently kept some distance away (N H G Jacobsen *in litt*). "Fairly large colonies occur in the eastern Soutpansberg range in northern Transvaal where they do extensive damage to certain synicultural species. The authorities concerned have switched over to other tree species to cope with this problem. It is absolutely untrue that a colony in eastern Transvaal has been exterminated by Transvaal Provincial Division of Nature Conservation or by any other body." (W K Kettlitz *in litt*).

BUSHMAN HARE

Lepus monticularis Thomas, 1903

Order LAGOMORPHA

Family LEPORIDAE

Distinguishing characteristics: Tail yellowish-brown, not black and white as in other *Lepus* or reddish to black as in *Pronolagus*; ears long; hind feet short and with bushy soles (Roberts 1951 p 532).

Present distribution: Deelfontein and the region east of Calvinia, Karoo (Ellerman, Morrison-Scott & Hayman 1953 p 218). Twelve miles south of Sutherland (P Swanepoel *in litt*).

Former distribution: Not known.

Status: Rare; distribution limited, and poorly represented in collections.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline established.

Protective measures already taken: Orange Free State - Schedule 2(?).

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

TREE DASSIE

Dendrohyrax arboreus (A Smith, 1827)

Order HYRACOIDEA

Family PROCAVIIDAE

Distinguishing characteristics: Molars brachyodont; P_1 always present; length of P^{1-4} exceeding length of M^{1-3} ; skull concave dorsally; temporal ridges beaded and far apart (Bothma 1971 p 2). Fur longer and more silky than in other dassies; white dorsal patch present on midback.

Present distribution: Evergreen forests of eastern Cape Province and Natal midlands. Extralimitally to eastern Zaïre, Rwanda, Burundi, Uganda and Kenya (Bothma 1971 p 6).

Former distribution: As above, but forests were more extensive and widespread, offering more suitable habitat (J du P Bothma *in litt*).

Status: Rare; suitable habitat is sparsely distributed.

Estimated numbers: Not known.

Breeding rate in wild: Gestation period about seven months. One or two, rarely three, young born at a time (Dorst & Dandelot 1970 p 154).

Reasons for decline: Destruction of forests (J du P Bothma *in litt*).

Protective measures already taken: Cape Province - protected.

Measures proposed: Proposed establishment of prime forest habitat areas where the species still occurs successfully (J du P Bothma *in litt*).

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: Needs to be studied in detail (J du P Bothma *in litt*).

CAPE PANGOLIN

Manis termminki Smuts, 1832

Order PHOLIDOTA

Family MANIDAE

Distinguishing characteristics: Elongate, tapering body, with small head, small eyes, no ear pinna, broad and heavy tail, forelegs shorter than hind legs, equipped with strong digging claws. Entire body, apart from the snout and ventral surface, is covered in movable, overlapping scales, with the posterior edges sharp. Tongue long and can be protruded to catch ants. Toothless.

Present distribution: "... known from the Kruger National Park, Transvaal (Toulon, etc.), the Orange Free State, and the region of Upington, Cape Province. Roberts says that it has been reported from northern Zululand and it has been recorded from as far south as Colesberg (though probably not in recent years)" (Ellerman, Morrison-Scott & Hayman 1953 p 104). Komati Poort, Transvaal (P Swanepoel *in litt*). Sight records from Ndumu Game Reserve and False Bay Park, Natal (D T Rowe-Rowe *in litt*). Bourquin reports that colour slides have been taken of an animal found near False Bay (Lake St Lucia) on 31 October 1968 (P J le Roux *in litt*). Widespread in the Transvaal outside the Kruger National Park (Thabazimbi, Derby, Langjan and Hans Merensky Nature Reserve) (N H G Jacobsen *in litt*). Kuruman area, 1972; Kimberley, 1973 (N Fairall *in litt*). Occurs extensively further north in Africa.

Former distribution: (See above.) Unknown, but doubtless wider than at present.

Status: Rare; widespread (although its range appears to be shrinking) but nowhere abundant. This is also the case in South-West Africa where (Shortridge 1934 p 665) "in its wide but sporadic distribution it may be compared with the Hedgehog".

Estimated numbers: Not known.

Breeding rate in wild: "There is usually a single offspring annually, but sometimes two" (Walker 1968 p 504).

Reasons for decline: Spread of human activity.

Protective measures already taken: Transvaal - Schedule I; Natal - specially protected; Cape Province - endangered; Orange Free State - Schedule I.

Measures proposed: None.

Number in captivity: "Only a few have thrived in captivity" (Walker 1968 p 504); "... they are difficult animals to keep in captivity and are consequently seldom purchased" (Ellerman, Morrison-Scott & Hayman 1953 p 237).

Breeding potential in captivity: Not known.

Remarks: On account of our very limited knowledge of this rare animal it is suggested that an intensive study of its ecological requirements would be of prime importance (N H G Jacobsen *in litt*).

ANTBEAR

Orycteropus afer (Pallas, 1766)

Order TUBULIDENTATA

Family ORYCTEROPODIDAE

Distinguishing characteristics: Large heavy body, with long head and snout ending in a round, blunt pig-like muzzle, pierced by circular nostrils. Ears tubular, 150 to 210 mm in length. Neck short, fore-quarters low, back arched. Tail strong, muscular and tapered to a point. Legs short and stocky, forefoot with four digits, hind foot with five; all digits are webbed at their bases, with strong, blunt claws. Head and body length 1 000 to 1 580 mm; tail length 445 to 610 mm (Walker 1968 p 1317).

Present distribution: "... in the absence of material for comparison, for the present assumed to occur over the whole Union" (= Republic of South Africa) (Roberts 1951 p 240). Widespread further north in Africa.

Former distribution: Not known.

Status: Seldom seen or caught, and few specimens find their way into museums (Ellerman, Morrison-Scott & Hayman 1953 p 154), and this creates the impression that "they are now greatly reduced in numbers" (Walker 1968 p 1317). However, they may be more numerous than is suspected.

Estimated numbers: Not known.

Breeding rate in wild: "The female gives birth to a single offspring during the winter months, usually in May, June and July ..." (FitzSimons 1919 p 234).

Reasons for decline: If there is a decline, it is probably more from habitat destruction than hunting.

Protective measures already taken: Transvaal - Schedule 1; Natal - specially protected; Cape Province - protected; Orange Free State - Schedule 1.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

AFRICAN STRIPED WEASEL

Poecilogale albinucha (Gray, 1864)

Order CARNIVORA

Family MUSTELIDAE

Distinguishing characteristics: "Head and body is usually 250 to 350 mm., and tail length is 150 to 230 mm. From the white on the head and nape, four whitish to orangish-yellow stripes and three black stripes extend on the black back toward the tail, which is white. The legs and under parts are black. ... differs externally from the African polecat (*Ictonyx*) in its more slender and generally smaller body, and its narrower back stripes and other features of the color pattern" (Walker 1968 p 1203).

Present distribution: Widely but sparsely distributed in the Transvaal, eastern Orange Free State (Aberfeldy - Ellerman, Morrison-Scott and Hayman 1953), Natal, eastern, southern and northern Cape Province, usually but not exclusively between 50 cm and 150 cm isohyets (See Rowe-Rowe 1972b for list of localities and distribution map). Extralimitally recorded from Debeeti, Botswana, Leonardville, South West Africa, and more extensively from Rhodesia and Zambia (Rowe-Rowe 1972b); Angola, Zaïre, Tanzania and Uganda (Ellerman, Morrison-Scott & Hayman 1953). Locality records not listed in Rowe-Rowe (1972b) include King William's Town district, Addo National Park, Kirkwood and Cathcart district (P Swanepoel *in litt*), and an unconfirmed report from Naboomspruit (N H G Jacobsen *in litt*). In Natal occurs in grassland areas only, absent from low-lying regions of Zululand, "Ubombo specimens were obviously collected on top of the Lebombo mountains, a moist grassland area" (D T Rowe-Rowe *in litt*).

Former distribution: Not known.

Status: Rare (Roberts 1951 p 208); "... in the Union it seems widely distributed in the eastern parts, but is nowhere common" (Ellerman, Morrison-Scott & Hayman 1953 p 113); "apparently somewhat scarce throughout its range" (Shortridge 1934 p 202). A specialist carnivore which occupies a restricted niche, therefore rare, but not considered endangered (D T Rowe-Rowe *in litt*).

Estimated numbers: Not known.

Breeding rate in wild: Apparently two young per litter (Walker 1968 p 1203, Shortridge 1934 p 203). Two suckling immature animals collected during April in Natal (N H G Jacobsen *in litt*); one very young animal with eyes and ears not yet open collected in December 1970 near Pietermaritzburg (Rowe-Rowe 1972a).

Reasons for decline: No decline established.

Protective measures already taken: Cape Province - protected; Orange Free State - Schedule 3.

Measures proposed: None.

Number in captivity: Five at present kept by D T Rowe-Rowe, Pietermaritzburg; one pair donated to National Zoological Gardens, Pretoria; one animal at Port Elizabeth Museum, Snake Park and Oceanarium (D T Rowe-Rowe *in litt*).

Breeding potential in captivity: Bred in captivity in 1973 and 1974; two litters of three young born, of which two survived in each case (D T Rowe-Rowe *in litt*).

Remarks: Worthy of protection and study (N H G Jacobsen *in litt*). Detailed study of behaviour and some aspects of ecology done by D T Rowe-Rowe (Rowe-Rowe 1972a, 1972b) to be included in a thesis to be submitted to the University of Natal (D T Rowe-Rowe *in litt*).

HONEY BADGER

Mellivora capensis (Schreber, 1776)

Order CARNIVORA

Family MUSTELIDAE

Distinguishing characteristics: Heavy-bodied animals with short legs and a relatively short tail. Head and body 600 to 770 mm, tail 200 to 300 mm. Upper parts grey to pale yellow or whitish, contrasting sharply with dark brown or black underparts. Hair coarse and scant on underparts. Skin exceedingly loose and extremely tough (Walker 1968 p 1205).

Present distribution: Kruger National Park (including Toulon) and Rustenburg district, Transvaal; near Upington, Little Namaqualand (north of Steinkopf and Kamiesberg), Knysna, Albany district and Amatola mountains, Cape Province (Ellerman, Morrison-Scott & Hayman 1953). Halfway House, near Pretoria, and eastern Transvaal (eg Timbavati) (J A J Nel *in litt*). Cathcart, East London and Queenstown districts (P Swanepoel *in litt*). In Natal recorded from low-lying regions of Zululand and Tongaland (D T Rowe-Rowe *in litt*). Goukamma Nature Reserve between Knysna and George; Langkloof (N Fairall *in litt*). Extralimitally widely and evenly distributed over Africa, and eastward to Nepal and India, west of Bay of Bengal (Ellerman, Morrison-Scott & Hayman 1953 p 114-115).

Former distribution: Unknown but probably wider than at present.

Status: ? rare; widespread but nowhere common. Rare in Zululand and Tongaland (D T Rowe-Rowe *in litt*).

Estimated numbers: Not known.

Breeding rate in wild: Young usually born and reared in holes in the ground; usually two young per litter; gestation period recorded as "about six months" (Shortridge 1934 p 196).

Reasons for decline: Extermination and habitat destruction by man.

Protective measures already taken: Cape Province - protected; Orange Free State - Schedule 3.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

MELLER'S MONGOOSE

Rhynchogale melleri (Gray, 1865)

Order CARNIVORA

Family VIVERRIDAE

Distinguishing characteristics: "... some resemblance to *Ichneumia* in having coarse hairs protruding from the close underfur, rather solid back teeth, the same number of teeth (though the p¹ above and below is rudimentary, sometimes missing above), but with no naked line from the nose to upper lip (covered completely with short hair), and the small inner toe on all the feet is small and rudimentary; ..." (Roberts 1951 p 156). "The length of the head and body is 440 to 485 mm., and the length of the tail is usually 300 to 400 mm. The color is grayish or pale brown, the head and undersides are paler, and the feet and tail are usually darker. ... *Rhynchogale* has hind soles that are hairy to the roots of the toes" (Walker 1968 p 1259).

Present distribution: North-eastern to south-eastern Transvaal along the Transvaal Drakensberg. Extralimitally Swaziland, Mocambique, Malawi, Rhodesia, Zambia and Tanzania (N H G Jacobsen *in litt*).

Former distribution: Not known.

Status: Rare; "Very uncommon" in Zambia (Ansell 1960 p 43). "... not well represented in study collections" (Walker 1968 p 1259).

Estimated numbers: Not known.

Breeding rate in wild: Two litters of two young each, one recently-born, the other foetal, collected in December in Zambia (Walker 1968 p 1259).

Reasons for decline: No decline established.

Protective measures already taken: Orange Free State - Schedule 3.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

AFRICAN CIVET

Viverra civetta Schreber, 1776

Order CARNIVORA

Family VIVERRIDAE

Distinguishing characteristics: "Head and body length is 670 to 800 mm., and tail length is about 460 mm. The color is black with white or yellowish spots, stripes and bands. The hair is long and coarse, and that of the tail is thick. The perineal glands under the tail contain the oily scented matter used commercially in making perfume. All the feet have five claws, and the soles are hairy" (Walker 1968 p 1230).

Present distribution: "... the Kruger National Park, and the Zoutpansberg and Rustenburg districts, Transvaal, and according to Shortridge the coastal parts of northern Zululand" (Ellerman, Morrison-Scott & Hayman 1953 p 120). Northern Cape? (N Fairall *in litt*). Extralimitally widespread in Africa, and common in some areas.

Former distribution: Unknown but doubtless more widespread than at present. A record exists (Shortridge 1934 p 111) of its presence in Pretoria, where it no longer occurs.

Status: Rare; limited distribution and probably declining in numbers. Rare in northern Zululand (D T Rowe-Rowe *in litt*).

Estimated numbers: Not known.

Breeding rate in wild: Two to three young per litter, and usually two litters per year (Walker 1968 p 1230).

Reasons for decline: Habitat destruction by man. Elsewhere in Africa exploitation for the perfume industry is probably a factor.

Protective measures already taken: Orange Free State - Schedule 3.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: Probably not in danger of extinction, but nevertheless limited in distribution and declining in numbers.

NAMAQUA DUNE-MOLE

Bathyergus janetta Thomas & Schwann, 1904

Order RODENTIA

Family BATHYERGIDAE

Distinguishing characteristics: "... short legs and five well-developed foreclaws, ... The tail has a flat, feather-like appearance ... The incisors are white; the upper ones are heavily grooved. ... Both sets of incisors project forward to an unusual degree. The eyes are quite small and there is no external ear" (Walker 1968 p 1075). "Colour darker, with distinct dark, broad dorsal band; size smaller on the whole (than *B suillus*)" (De Graaff 1968 p 3).

Present distribution: "Little Namaqualand (especially Port Nolloth and adjacent areas, including Kamiesberg), and just across the mouth of the Orange River into Great Namaqualand - possibly further north as well" (De Graaff 1968 p 4). The population north of the Orange river is confined to an extremely restricted area on the river bank, circumscribed by the town of Oranjemund, a landing strip and other mining activities (C G Coetzee *in litt*).

Former distribution: Not known.

Status: Rare; limited distribution.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

DASSIE RAT

Petromus typicus A Smith, 1831

Order RODENTIA

Family PETROMYIDAE

Distinguishing characteristics: "... somewhat squirrel-like in appearance, but the tail, although not bushy, is covered with scattered long hairs. The length of the head and body is 140 to 200 mm., and the length of the tail is 130 to 180 mm. The limp body can be greatly compressed, so that with its flat skull, this rodent can squeeze into narrow crevices" (Walker 1968 p 1070).

Present distribution: Little Namaqualand, eastwards to Keimoes (Misonne 1971 p 9) and southward to Kenhardt (Ellerman, Morrison-Scott & Hayman 1953 p 238). Extralimitally through South-West Africa to Benguella, Angola (Misonne 1971 p 9).

Former distribution: Not known.

Status: ? rare; limited distribution.

Estimated numbers: Not known.

Breeding rate in wild: "*Petromus* mates ... from November through December; they give birth near the end of the year. The usual litter size is one or two" (Walker 1968 p 1070).

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: C G Coetzee (Windhoek) had five or six individuals in his lounge during July 1974 (G de Graaff *in litt*).

Breeding potential in captivity: Not known.

Remarks: None.

SOUTH AFRICAN RED SQUIRREL

Paraxerus palliatus Peters, 1852

Order RODENTIA

Family SCIURIDAE

Distinguishing characteristics: Head and body length around 200 mm, tail about the same (Roberts 1951 p 362); skull length around 45 to 52 mm; tail either deep red or deep orange, or has these colours in it; underparts red or orange (Ellerman, Morrison-Scott and Hayman 1953 p 244).

Present distribution: Maputa and Manguzi Forests, north-eastern Zululand, to Ngoye Forest, Eshowe district, Zululand (Roberts 1951 p 366-367). Extralimitally Mocambique to Somalia (Ellerman, Morrison-Scott and Hayman 1953 p 245).

Former distribution: Not known.

Status: Rare. Confined to isolated forest patches, and limited in distribution. Rare in northern Zululand; forest patches being reduced by "slash and burn" agriculture (D T Rowe-Rowe *in litt*).

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No reason to assume decline (but see Status above - habitat destruction may lead to reduced numbers).

Protective measures already taken: None.

Measures proposed: None; the species is widespread in Mocambique.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: This species is included because it is limited to a restricted habitat (relict forest patches) in a limited part of the country. However it does not at first sight appear to be endangered.

AFRICAN GIANT RAT

Cricetomys gambianus Waterhouse, 1840

Order RODENTIA

Family CRICETIDAE

Distinguishing characteristics: "... the largest of the African rats, with the tail very long (though not scaled like the Murines), the skull elongate and less arched, though the muzzle is similarly broad, and the palatal foramina very short ..." (Roberts 1951 p 439). "Very large, head and body length 240 mm. and more, hindfoot 63 mm. and more. Tail wholly dark proximally, wholly pale distally. Cheek pouches present. ... In South Africa, skull length 65 to 80 mm." (Ellerman et al 1953 p 260).

Present distribution: Zoutpansberg and Woodbush, northern Transvaal (Davis 1962 p 63). Widespread extralimittally. One unconfirmed report (Anon 1951 p 185) records it from Hluhluwe, Zululand, but this is probably a misidentification (Davis 1974 p 164).

Former distribution: Not known.

Status: Rare; very limited distribution in South Africa, but widespread elsewhere in Africa. Found even in the suburbs of Salisbury but rare in South Africa (N H G Jacobsen *in litt*).

Estimated numbers: Not known.

Breeding rate in wild: "... mate at various seasons. The gestation period is about 42 days, and probably two to three young are produced at a birth" (Walker 1968 p 941).

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: (See above, breeding rate in wild). Ewer (1967) records a gestation period of not more than 32 days in captivity. Litter size varied from one to four with two being most common. Age of sexual maturity appears to be approximately seven months in females (N H G Jacobsen *in litt*).

Remarks: No protective measures are suggested; however this species has a limited distribution in South Africa, and is therefore included.

CAPE FAT MOUSE

Steatomys pentonyx (Sclater, 1899)

Order RODENTIA

Family CRICETIDAE

Distinguishing characteristics: "General colour above brown with a rufous tinge, below including the upper lips and limbs pure white, the line of demarcation being very marked; fur soft and thick, above with, below without, slaty bases; head acutely pointed, ears moderate, ... oval, ... covered internally with sparse whitish, externally with brown hairs. ... fore limbs with four clawed toes; hind limbs with five toes ... tail short, a little darker above than below, covered with short, stiff, bristle hairs" (Sclater 1899 p 202).

Present distribution: Western Cape, from Cape Flats east at least to Tulbagh and Wolseley, northwards to Klaver (Roberts 1951 p 452).

Former distribution: Not known.

Status: Rare; limited distribution and nowhere common.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: This species is limited in numbers and distribution, but does not appear to be endangered.

BRUSHTAILED GERBIL

Gerbillurus vallinus (Thomas, 1918)

Order RODENTIA

Family CRICETIDAE

Distinguishing characteristics: Skull with braincase and particularly bullae enlarged, the latter being over 10 mm long, 34 per cent of occipito-nasal length; rostrum, zygoma and mandible weakened, nasals usually not more than 13 mm; upper incisors grooved; upper cheekteeth biserially cuspidate; soles of hind feet poorly haired; small species, head and body rarely over 110 mm, tail 124 mm and more (Ellerman, Morrison-Scott and Hayman 1953 p 259, 314-315).

Present distribution: Kenhardt, north-western Cape Province (Ellerman, Morrison-Scott and Hayman 1953 p 317) and on the Orange River near Goodhouse (Davis 1974 p 180). Extralimitally South-West Africa and Southern Angola (Davis 1974 p 180).

Former distribution: Not known.

Status: Rare; very limited distribution in South Africa, although widespread in South-West Africa.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

CAPE GREATER GERBIL

Tatera afra (Gray, 1830)

Order RODENTIA

Family CRICETIDAE

Distinguishing characteristics: Colour dull, texture of fur somewhat harsh; line of demarcation between flanks and belly often indistinct; belly pure white; mammary formula 2-2=8; tail longer than, about equal to or shorter than head and body, evenly coloured to tip; pads of feet normally light-coloured, feet broad; upper incisors grooved or plain, moderately opisthodont to orthodont (Davis 1968 p 1-2).

Present distribution: South-western Cape, from Cape Town northwards to Nieuwhoudtville and eastwards to Herold's Bay (Davis 1968 p 6).

Former distribution: Not known.

Status: Rare; limited distribution, but not uncommon where present.

Estimated numbers: Not known.

Breeding rate in wild: Breeding season from beginning of August until end of March. Two to six young per litter (mean 3,98); one female can produce six to seven litters per season. Estimated weight at birth 4,5 g (Measroch 1954).

Reasons for decline: No decline evident.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Breeds well in captivity as long as it is given a small dark box in which to hide (J U M Jarvis *in litt*).

Remarks: This species is in no danger, and is included only because of its restricted distribution.

SPINY MOUSE

Acomys subspinosus (Waterhouse, 1838)

Order RODENTIA

Family MURIDAE

Distinguishing characteristics: Small animals with spiny fur, practically naked tails. Head and body length around 70 to 85 mm, skull length about 24 to 26 mm.

Present distribution: Knysna, Cape Town, Simonstown, Citrusdal, Eendekuil and Clanwilliam district, South-western Cape Province (Ellerman, Morrison-Scott & Hayman 1953 p 293).

Former distribution: Not known.

Status: Rare : Limited in distribution and nowhere very abundant.

Estimated numbers: Not known.

Breeding rate in wild: "Most births occur between February and September ... the young are born with the eyes open and with little of the helplessness of most newborn rodents. Male *Acomys* are capable of breeding when about seven weeks old" (Walker 1968 p 935).

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

AFRICAN WATER RAT

Dasymys incomtus (Sundevall, 1846)

Order RODENTIA

Family MURIDAE

Distinguishing characteristics: Superficially similar to *Otomys* spp, with coarse brown fur and short tail, but distinguished by slender white claws, naked scaly tail, ungrooved incisors and molars incompletely laminate.

Present distribution: "... the Transvaal, including Pretoria, Zoutpansberg, Woodbush, Tzaneen, Hectorspruit, near Carolina, etc. Natal (Durban, Zululand). In the Cape Province, Pondoland in the southeastern and Wolseley in the southwestern coastal districts" (Ellerman, Morrison-Scott & Hayman 1953 p 288). Widespread extralimitally, ranging as far north as Liberia, the Sudan and Ethiopia.

Former distribution: Not known.

Status: Rare; fairly widespread but seldom caught, and probably occurring in low numbers. "A swamp rat which appears to be losing its hold in Southern Africa" (Davis 1962 p 62).

Estimated numbers: Not known.

Breeding rate in wild: "The number of young is usually two to four. Many newborn young and pregnant females have been collected in the Okavage (*sic*) in southwestern Africa from June to October; a female collected in Angola in August was lactating" (Walker 1968 p 889).

Reasons for decline: Habitat destruction by dessication?

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: None.

VERREAUX'S RAT

Pracomys verreauxi (A Smith, 1834)

Order RODENTIA

Family MURIDAE

Distinguishing characteristics: Head and body usually below 130 mm; tail long, averaging 138 per cent or more of head and body; mammae 10; palatal foramina at least 22 per cent of occipitonasal length; molars narrower, width of M1 about 1,4 to 1,5 mm (Ellerman, Morrison-Scott & Hayman 1953 p 268-269).

Present distribution: The south-western Cape Province, including Knysna, George, Simonstown, Cape Town, Hout Bay, Paarl, Wolseley, Citrusdal, Eendekuil and Klaver. "There are two specimens in the British Museum from Umfolosi, Zululand, ... which might possibly represent a form of this species" (Ellerman, Morrison-Scott & Hayman 1953 p 277). (This last record is doubtful.)

Former distribution: Not known.

Status: Rare; uncommon in museum collections, and with a limited distribution, but in no apparent danger of extinction.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: No steps appear necessary to safeguard the survival of this species. If the record from Umfolosi is correct (above) it may not even qualify for inclusion in this list.

COASTAL FOREST MOUSE

Thamnomys cometes Thomas & Wroughton, 1908

Order RODENTIA Family MURIDAE

Distinguishing characteristics: Postero-internal cusp (T7) of M¹ reduced to a clear ridge connecting T4 to T8; ears with subauricular tuft of white hairs usually present; larger and greyer than *Thamnomys dolichurus*, with head and body 112 to 124 mm, tail 142 to 195 mm, hind foot 23 to 25 mm, skull length 31 to 33,2 mm (Misonne 1971 p 30-31).

Present distribution: Houtboschloop valley, eastern Transvaal (Davis 1974 p 145), and northeastern Zululand, along the coast, extralimitally to Inhambane, Mocambique (Roberts 1951 p 492), Rhodesia, Malawi, Tanzania and Kenya (Misonne 1971 p 31).

Former distribution: Not known.

Status: Rare; has a limited distribution in South Africa, and is nowhere common.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Not known.

Remarks: , None.

WOOSNAM'S DESERT RAT

Zelotomys woosnami (Schwann, 1906)

Order RODENTIA

Family MURIDAE

Distinguishing characteristics: "... based upon its paler colour, short tail, absence of supraorbital ridges (which is also the case in *Myomys*) and difference in m^1 (not specified); Thomas, however, was guided primarily by the number of mammae, ... as this genus has three pairs pectoral and two pairs inguinal ..." (Roberts 1951 p 471); "Larger species, the head and body in the majority of specimens exceeds 130 mm. ... tail short, averages 85 per cent of head and body, its colour white" (Ellerman, Morrison-Scott & Hayman 1953 p 268, key).

Present distribution: From Kuruman northward to the Molopo river, and along the Nossob river in the Kalahari Gemsbok National Park. Extraliminally Ngamiland and eastern and northern South-West Africa (Ellerman, Morrison-Scott & Hayman 1953 p 274, Davis 1974 p 159).

Former distribution: Not known.

Status: Rare; very limited South African and extralimital distribution, and never present in numbers where it occurs.

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No decline indicated.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Not known.

Breeding potential in captivity: Three litters arrived between March and end of July, consisting of five, five and four pups respectively (G de Graaff *in litt*).

Remarks: This species is listed because of its very limited distribution and apparently low numbers. However, it does not appear to be endangered.

BLACK-AND-WHITE DORMOUSE

Graphiurus ocularis (A Smith, 1829)

Order RODENTIA

Family MUSCARDINIDAE

Distinguishing characteristics: "... the largest of our species and prettily marked about the face with black and white" (Roberts 1951 p 368); "Colour pattern specialized; underside of tail with striking black line running down the middle, and with white hairs each side of this. A black stripe from eye to ear ... Large species, head and body length 129 - 144 mm., skull length 32.8 - 37.1 mm." (Ellerman, Morrison-Scott & Hayman 1953 p 253).

Present distribution: "From the southern Cape Province northwards through the Karroo on the west at least to Little Namaqualand and, on the east, to the Orange Free State and western Transvaal (Linokana, north-west of Zeerust, according to Lorenz)" (Roberts 1951 p 369).

Former distribution: Not known.

Status: Rare. Widespread but uncommon. "This is a rare species in museums" (Ellerman, Morrison-Scott & Hayman 1953 p 259).

Estimated numbers: Not known.

Breeding rate in wild: Not known.

Reasons for decline: No reason to assume a decline.

Protective measures already taken: None.

Measures proposed: None.

Number in captivity: Jarvis has three in captivity (J U M Jarvis *in litt*).

Breeding potential in captivity: A captive female produced a litter of six soon after capture; young mature remarkably slowly (J U M Jarvis *in litt*).

Remarks: This species is limited in numbers but widespread. There is no reason to assume that it is threatened, although rare. Animals adjust well to captivity and are locally a pest in mountain club huts (J U M Jarvis *in litt*).

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