Ictonyx striatus – Zorilla

Johan & Estelle van Rooyen

Regional Red List status (2016)	**Least Concern**
National Red List status (2004)	Least Concern
Reasons for change	No change
Global Red List status (2015)	Least Concern
TOPS listing (NEMBA) (2007)	None
CITES listing	None
Endemic	No

Although Zorillas present obvious morphological and ecological similarities to skunks (Mephitidae) and are sometime referred to as "African Skunks", they belong to a different carnivore family – the Mustelidae.

Assessment Rationale

The Zorilla is listed as Least Concern as it is fairly common across its wide distribution range, is present in numerous protected areas, and faces no major threats. Threats, such as road mortalities and domestic dogs, may cause local subpopulation declines, but this is not currently suspected to impact on overall population trends. Education and awareness campaigns should be used to raise the public profile of this species. Citizen science monitoring can contribute to refining our knowledge of its distribution and population trends, especially so as to avoid confusion with the rarer African Striped Weasel.

Regional population effects: Dispersal is expected between regions, as the Zorilla's range is continuous across Africa south of the Sahara, and this species is not limited by fences.

Distribution

The Zorilla has a wide distribution, ranging south of the Sahara from Mauritania and Senegal in the west, to Sudan, southeastern Egypt, Ethiopia and Djibouti in the east, and south to South Africa (Stuart & Stuart 2013). It occurs from sea level to more than 4,000 m asl on Mt Kenya (Young & Evans 1993).

This species is widely distributed throughout southern Africa and, within the assessment region, is present in all South African provinces. Zorillas show a wide habitat tolerance, often ranging into agricultural areas, such as pastoral areas of the Kenyan Highlands, wheatlands of southwest South Africa, and exotic plantations of KwaZulu-Natal (Stuart & Stuart 2013).

Taxonomy

Ictonyx striatus (Perry 1810)

ANIMALIA - CHORDATA - MAMMALIA - CARNIVORA - MUSTELIDAE - *Ictonyx* - *striatus*

Common names: Zorilla, African Skunk, Cape Polecat, Striped Polecat (English), Stinkmuishond (Afrikaans), iQaqa (Ndebele, Xhosa, Zulu), Nakêdi (Sotho, Tswana), Ehidembo (Shona), Licaca (Swati), Thuri (Venda), Inganakazana (Zulu)

Taxonomic status: Species

Taxonomic notes: The type locality of this species is the Cape of Good Hope (Hollister 1915). Although Meester et al. (1986) and Coetzee (1977) listed at least ten subspecies, it is likely that many of these will be discredited following further taxonomic research (Skinner & Chimimba 2005). The Zorilla is easily distinguished from the closely related African Striped Weasel (*Poecilogale albinucha*) by its larger size, longer hair, and the three characteristic white facial markings (Rowe-Rowe 1997).

Population

The Zorilla ranges extensively across the assessment region and Shortridge (1934) described this species as one of the most ubiquitous mammals in southern Africa. Although Zorillas are considered rare in some parts of their range (Skinner & Chimimba 2005), they are fairly common elsewhere and are easily overlooked, as they may be difficult to trap, at least locally (E. Do Linh San pers. obs. 2005–2011). Estes (1991) stated that they are most common in open rangelands where wild or domestic grazers keep grass short. In East Africa, Hendrichs (1972) estimated population density at 0.1–0.2 individual / km^2. They are widespread and regularly observed within the assessment region. Using an average density of 0.1 individual / km^2, we estimate that there are well over 10,000 mature individuals in the population.

Current population trend: Stable, based on wide habitat tolerance and extent of occurrence.

Continuing decline in mature individuals: Unknown, but probably not.

Number of mature individuals in population: Probably > 10,000.

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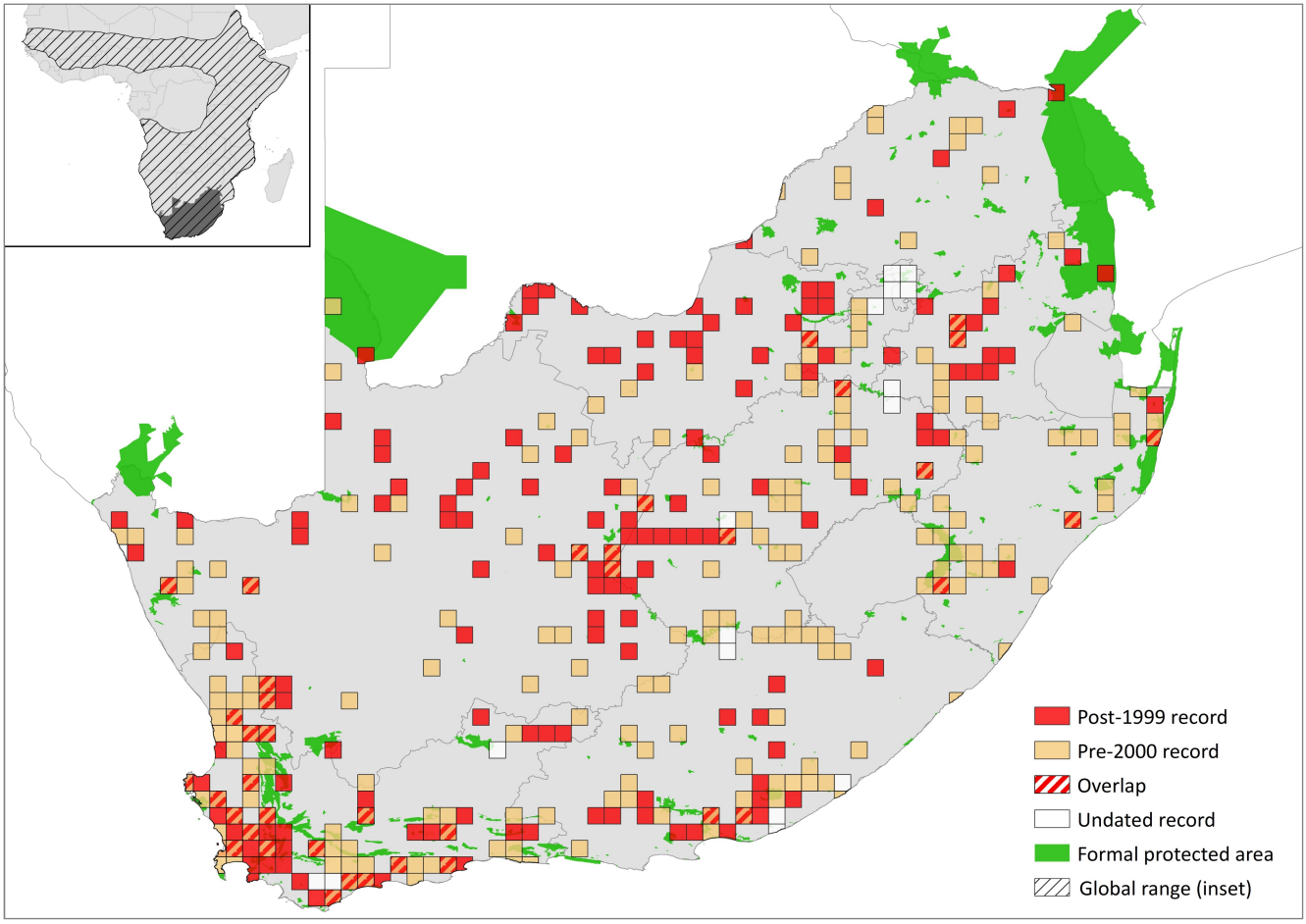

Figure 1. Distribution records for Zorilla (*Ictonyx striatus)* within the assessment region

Table 1. Countries of occurrence within southern Africa

Country	Presence	Origin
Botswana	Extant	Native
Lesotho	Extant	Native
Mozambique	Extant	Native
Namibia	Extant	Native
South Africa	Extant	Native
Swaziland	Extant	Native
Zimbabwe	Extant	Native

Number of mature individuals in largest subpopulation: Unknown

Number of subpopulations: It is not currently possible to determine the extent or number of subpopulations.

Severely fragmented: No. This species has a broad habitat tolerance and can exist in agricultural landscapes.

Habitats and Ecology

Zorillas are highly adaptable and exhibit a wide habitat tolerance, as they are found in open grassland, savannah woodland, thornbush, rocky habitats, agricultural areas, forest, and even desert (usually along drainage lines, provided there is some scrub cover). They are absent from the dense evergreen forests of the Congo basin and West Africa (Stuart & Stuart 2013). It was noted that, during dry years, their distribution extended further eastwards, receding westwards (to drier regions) during times of high rainfall (Rowe-Rowe & Taylor 1996).

Zorillas are carnivorous, with insects and murids predominating in their diet. They are also known to occasionally supplement their diet with reptiles, amphibians, birds, spiders, scorpions, centipedes and millipedes (Stuart 1981; Rautenbach 1982; Lynch 1983; Smithers 1983). Competition between this species and the African Striped Weasel is reduced somewhat by the Zorilla's more diverse diet and adaptable habits (Rowe-Rowe 1978a).

Zorillas are generally solitary, but pairs and family groups are occasionally sighted (Rowe-Rowe 1992). They are entirely nocturnal (Shortridge 1934; Smithers 1971), resting during the day in rock crevices, burrows, under buildings or in hollow logs (Shortridge 1934; Smithers 1971; Stuart 1981).

In the assessment region, Zorillas mate and give birth between August and December (Rowe-Rowe 1978b; Stuart 1981; Rautenbach 1982). However, females who lose their young likely mate again, as demonstrated in captivity (Rowe-Rowe 1978b). Generally one to three young are born after a gestation period of 36 days. Postnatal physical and behavioural development has been studied thoroughly (Rowe-Rowe 1978b). Rowe-Rowe (1992) estimated longevity in the wild at 4–5 years.

Ecosystem and cultural services: Zorillas may locally have a predatory impact on small rodents (e.g. *Rattus* spp.). This is especially true in agricultural areas, where rodents feed on crops and dung of domestic farm animals (Kingdon 1977). In pastures, Zorillas consume beetle larvae that feed on roots and grasses (Kingdon 1977).

Table 2. Use and trade summary for the Zorilla (*Ictonyx striatus*)

Category	Applicable?	Rationale	Proportion of total harvest	Trend
Subsistence use	Yes	Bushmeat and traditional medicine.	Majority	Stable
Commercial use	Yes	Bushmeat and traditional medicine, and the pet trade.	Minority	Stable
Harvest from wild population	Yes	Hunted for bushmeat and traditional medicine products; captured for the pet trade.	All	Stable
Harvest from ranched population	No	-	-	-
Harvest from captive population	No	-	-	-

Table 3. Possible net effects of wildlife ranching on the Zorilla (*Ictonyx striatus*) and subsequent management recommendations

Net effect	Neutral
Data quality	Suspected
Rationale	Zorillas have a wide habitat tolerance and therefore probably occur on wildlife ranches and game farms. However, exactly because of this wide habitat tolerance, it is assumed that there are no significant effects of wildlife ranching.
Management recommendation	Reduce persecution of this species through holistic management techniques.

Use and Trade

Zorillas have been documented being caught using dogs or traps by subsistence hunters in Tanzania (Carpaneto & Fusari 2000). There are also some reports of Zorillas being kept as pets after anal glands have been surgically removed (Kingdon 1977), as well as their scent being used as perfume (Shortridge 1934). Locally, this species (especially its bones and organs) is used in traditional medicine, although this small-scale use is not expected to have any significant impact on the population.

Threats

There are no major threats to the species. Most mortality is attributed to motor vehicles and free-roaming domestic dogs (Kingdon 1977), and in some areas it may be undergoing local declines due to increasing rural human populations and predation by domestic dogs (Stuart & Stuart 2013). Not only are Zorillas killed by free-roaming domestic dogs, but they also compete with them for food in many rural areas (Rowe-Rowe 1997). They are also occasionally targeted and killed for preying on poultry (Rowe-Rowe 1992) or gamebird eggs and chicks (Rowe-Rowe 1997).

Current habitat trend: Stable

Conservation

Zorillas are present in numerous protected areas within the assessment region. Currently, no conservation interventions are required. However, educational campaigns aimed at distinguishing between this species and the African Striped Weasel may help citizen scientists to improve monitoring capacity for these two species.

Recommendations for land managers and practitioners:

- There are no management or conservation plans for this species, and it does not require any at this stage.

Table 4. Threats to the Zorilla (*Ictonyx striatus*) ranked in order of severity with corresponding evidence (based on IUCN threat categories, with regional context)

Rank	Threat description	Evidence in the scientific literature	Data quality	Scale of study	Current trend
1	*4.1 Roads & Railways*: mortality from road collisions.	Kingdon 1997; E. Do Linh San pers. obs. 2008–2016	Anecdotal	-	Stable
2	*8.1.2 Invasive Non-Native/Alien Species/Diseases*: predation by domestic dogs and competition for food.	Rowe-Rowe 1997	Anecdotal	-	Stable
3	*5.1.3 Persecution/Control*: direct persecution for killing poultry or game birds.	Rowe-Rowe 1992	Anecdotal	-	Stable
4	*5.1.1 Hunting & Collecting Terrestrial Animals*: hunting for bushmeat and traditional medicine.	Carpaneto & Fusari 2000	Empirical	Local	Stable

A Zorilla's Last Stand

Zorilla –
a rather fancy name for "stinkmuishond",
Africa's skunk!
Fossicking and ferreting for small prey,
it gets on with its nocturnal hunting,
brazenly unperturbed,
on the sparsely vegetated Karoo veld.
Large enemies are no threat –
presenting a bold side-on stance,
with tail fluffed out, curved over back,
displaying its black and white stripes,
the zorilla warns that it does not taste good,
and is ready to eject its foul-smelling fluid.
Crossing the N1 it hears an approaching enemy,
stops, and adopts the threatening pose.
But the twenty-ton juggernaut,
hurtling along at 120 km/h,
knows nothing about aposematic colouration.

From *Green Water, Grey Sand, and High Places* by David Rowe (2005)

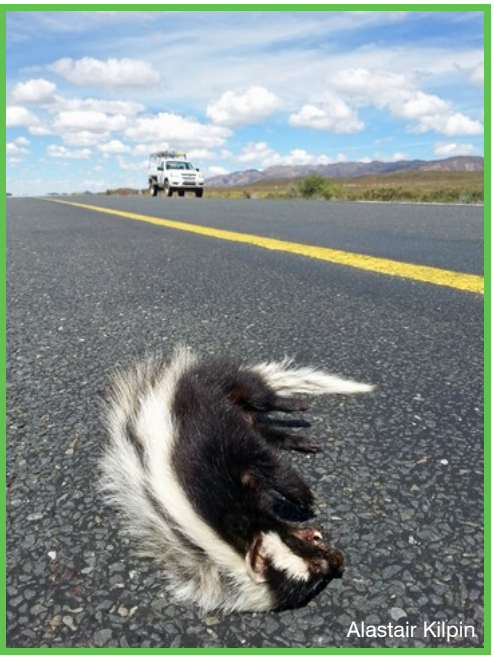
Alastair Kilpin

Table 5. Conservation interventions for the Zorilla (*Ictonyx striatus)* ranked in order of effectiveness with corresponding evidence (based on IUCN action categories, with regional context)

Rank	Intervention description	Evidence in the scientific literature	Data quality	Scale of evidence	Demonstrated impact	Current conservation projects
1	*4.3 Awareness & Communications*: education and awareness to raise the public profile of this species.	-	Anecdotal	-	-	-

Research priorities:

- Quantification of the impact of roads, and especially mortality from motor vehicles, on this species.
- The use of citizen science in generating accurate population trends.
- More information is required on the species basic biology (e.g. reproduction) and ecology (e.g. home range size, habitat use).

Encouraged citizen actions:

- Report sightings on virtual museum platforms (for example, iSpot and MammalMAP), especially outside protected areas. Please see **Taxonomic notes** for differentiating between the Zorilla and the African Striped Weasel.
- Roadkill sightings with clear photographs and accurate GPS coordinates can be submitted to the Endangered Wildlife Trust (email: roads@ewt.org.za; or download the EWT Road Watch app to submit data directly).

Data Sources and Quality

Table 6. Information and interpretation qualifiers for the Zorilla (*Ictonyx striatus*) assessment

Data sources	Field study (literature, unpublished), indirect information (literature, expert knowledge, unpublished)
Data quality (max)	Estimated
Data quality (min)	Suspected
Uncertainty resolution	Best estimate
Risk tolerance	Evidentiary

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Details of the methods used to make this assessment can be found in *Mammal Red List 2016: Introduction and Methodology.*