# *Elephantulus rupestris* – Western Rock Sengi

Jack Dumbacher

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

A widespread species found mainly in South Africa and Namibia, but also extreme southern Botswana (Smithers 1971) and southwestern Angola (Corbet & Hanks 1968; Rathbun 2005).

## Taxonomy

*Elephantulus rupestris* (Smith 1831)

ANIMALIA - CHORDATA - MAMMALIA - MACROSCELIDEA - MACROSCELIDIDAE - *Elephantulus* - *rupestris*

**Synonyms:** *Macroscelides rupestris*

**Common names:** Western Rock Sengi, Smith's Rock Elephant Shrew, Western Rock Elephant-shrew (English), Smith se Kliklaasneus (Afrikaans)

**Taxonomic status:** Species

**Taxonomic notes:** In the past the single family was included in the order Insectivora, but now the family is in the monophyletic order Macroscelidea and the newly created super-cohort Afrotheria. Currently, there are 19 living species recognized in four genera. The soft-furred Sengis or elephant-shrews include three genera: *Petrodromus* is monospecific, *Macroscelides* has three species, and *Elephantulus* contains 11 species. The four species of giant sengis belong to the genus *Rhynchocyon*. The common name "sengi" is being used in place of elephant-shrew by many biologists to try and disassociate the Macroscelidea from the true shrews (family Soricidae) in the order Soricomorpha. See the IUCN SSC Afrotheria Specialist Group web site and www.sengis.org for additional information.

## Assessment Rationale

Although this species is not abundant, it is widespread in suitable habitats over a wide extent of occurrence for South Africa. Because it occupies habitats that are very arid that will not support most development without the availability of water, there are no known threats to the vast majority of the habitats occupied by the Western Rock Sengi. Areas close to rivers or reliable sources of water may have been developed, or may be developed in the future, as agricultural and urban areas. For example, a narrow area adjacent to and along the Orange River between Namibia and South Africa has been developed, but this is a relatively small area compared to the overall distribution of the Western Rock Sengi. Intensive goat and sheep grazing, resulting in localised desertification, may also adversely impact relatively small areas. Mineral extraction activities, such as around the town of Springbok in South Africa, can also alter sengi habitats. However, these disturbances are confined to a relatively small area compared to the overall distribution of the species. Past, current, and future development in this region of Africa is not expected to have a significant impact on this sengi or its habitats. On the other hand, bush encroachment and desertification might adversely alter habitats that these sengis occupy, and these processes should be monitored for possible negative impacts on sengi populations. The species is listed as Least Concern.

**Regional population effects**: More or less continuous distribution with populations in Namiba and Botswana, so rescue effect is possible.

## Distribution

A widespread species found mainly in South Africa and Namibia, but also in southwestern Angola (Corbet & Hanks 1968; Skinner & Chimimba 2005). Within the assessment region, they only occur in the Northern Cape and Eastern Cape provinces (Skinner & Chimimba 2005). Museum records from the Western Cape need to be carefully vetted. Similarly, in the North West Province, there is one museum record from the Schweizer-Reneke area, but no recent specimens have been from the same area during an intensive small mammal survey (Power 2014). Further work on delimiting the distribution of the species within South Africa is necessary.

## Population

There are no data on the population status of the Western Rock Sengi, but it is likely to be locally common and it can be expected that subpopulations will vary greatly in the arid habitats that it occupies. We suspect that it occurs naturally in low numbers but habitats are reasonably secure.

**Current population trend:** Unknown

**Recommended citation:** Rathbun G, Smit-Robinson H. 2016. A conservation assessment of *Elephantulus rupestris*. In Child MF, Roxburgh L, Do Linh San E, Raimondo D, Davies-Mostert HT, editors. The Red List of Mammals of South Africa, Swaziland and Lesotho. South African National Biodiversity Institute and Endangered Wildlife Trust, South Africa.

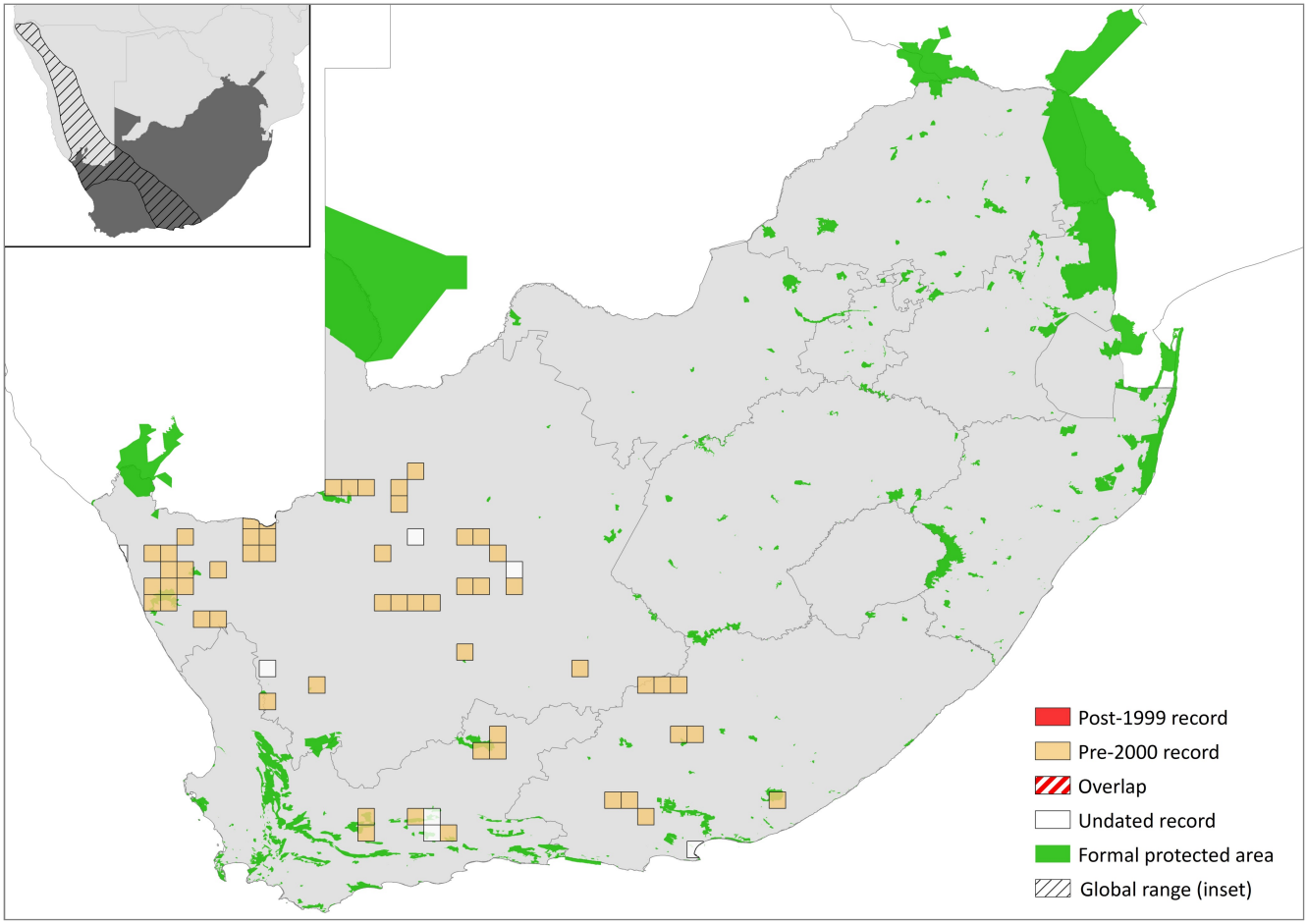


**Figure 1. Distribution records for Western Rock Sengi (*Elephantulus rupestris*) within the assessment region**

**Table 1. Countries of occurrence within southern Africa**

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

**Continuing decline in mature individuals:** Unknown

**Number of mature individuals in population:** Unknown

**Number of mature individuals in largest subpopulation:** Unknown

**Number of subpopulations:** Unknown

**Severely fragmented:** No

# Habitats and Ecology

This species occupies arid habitats, including deserts, dry savannahs, and dry shrublands. It is typically associated with rocky ridges, outcrops or koppies (rocky hills), and boulder fields at the bases of mountains. Habitat relationships and genetics are discussed by Smit et al. (2009). The species occurs in the succulent and Nama Karoo Biomes.

**Ecosystem and cultural services:** Sengi species are thought to be included in San art and are therefore subject to local folklore.

# Use and Trade

There is no evidence that this species is used for local or international trade.

# Threats

There are no known major threats to the species. However, local declines due to habitat modification to

**Table 2. Threats to the Western Rock Sengi (*Elephantulus rupestris*) 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 | *3.2 Mining & Quarrying*: habitat loss from mining activities. Current stress *1.2 Ecosystem degradation*: loss of habitat. | - | Anecdotal | - | Unknown |
| 2 | 3.1. *Oil & Gas Drilling*: potential habitat loss from hydraulic fracturing. | - | Anecdotal | - | Future |

relatively small areas may occur near rivers and human population centres due to small-holder and industrial agriculture, mineral extraction, and urban development. Changes in habitats due to desertification and bush encroachment may adversely alter habitats for sengis, but at present these changes do not appear widespread or serious.

**Current habitat trend:** Stable

# Conservation

The species occurs in protected areas, but it is not clear which areas and what proportion of the distribution is protected. Key protected areas within South Africa include the Namaqua National Park, Tankwa Karoo National Park and Mokala National Park. Because of the very minor conservation problems facing this species, no conservation measures are needed or recommended at present or in the foreseeable future.

**Recommendations for land managers and practitioners:**

- Expansion of the protected area network.

**Research priorities:**

- Determine abundance and range size across its distribution.
- Biological data including life-history and ecology.
- Vetting of museum records to more accurately delimit distribution.

**Encouraged citizen actions:**

- Citizens are encouraged to report sightings on virtual museum platforms (for example, iSpot and MammalMAP) with photographic confirmation.

# Data Sources and Quality

**Table 3. Information and interpretation qualifiers for the Western Rock Sengi (*Elephantulus rupestris*) assessment**

| | |
|---|---|
| Data sources | Museum records, indirect information (expert knowledge) |
| Data quality (max) | Suspected |
| Data quality (min) | Suspected |
| Uncertainty resolution | Expert consensus |
| Risk tolerance | Evidentiary |

# References


Corbet GB, Hanks J. 1968. A revision of the elephant-shrews, family Macroscelididae. Bulletin of the British Museum of Natural History (Zoology) **16**:5–11.

Power RJ. 2014. The distribution and status of mammals in the North West Province. Department of Economic Development, Environment, Conservation & Tourism, North West Provincial Government, Mahikeng, South Africa.

Rathbun GB, subeditor. 2005. Macroscelidea. Pages 22–34 in Skinner JD, Chimimba CT, editors. The Mammals of Southern Africa Subregion. Third edition. Cambridge University Press, Cambridge, UK.

Skinner JD, Chimimba CT. 2005. The Mammals of the Southern African Subregion. Third edition. Cambridge University Press, Cambridge, UK.

Smit HA, Watson J, Jansen van Vuuren B. 2009. Relative importance of habitat connectivity in shaping the genetic profiles of two southern African elephant-shrews. Journal of Biogeography **37**:857–864.

Smithers RHN. 1971. The mammals of Botswana. National Museums of Rhodesia, Museum Memoir **4**:1–340.


# Assessors and Reviewers


**Galen Rathbun[1†], Hanneline Smit-Robinson[2,3†]**

*[1]California Academy of Sciences, [2]BirdLife South Africa, [3]University of the Witwatersrand*

*[†]IUCN SSC Afrotheria Specialist Group*


# Contributors


**Andrew Taylor[1†], Samantha Page-Nicholson[1], Matthew F. Child[1]**

*[1]Endangered Wildlife Trust*


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