IUCN SSC Afrotheria Specialist Group

2019 Report

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Co-Chairs

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Number of members

34

Social networks

Twitter: @Tweeting_Tenrec
Website: www.afrotheria.net

Mission statement

The IUCN SSC Afrotheria Specialist Group (ASG) facilitates the conservation of hyraxes, aardvarks, elephant-shrews or sengis, golden moles, tenrecs and their habitats by: (1) providing sound scientific advice and guidance to conservationists, governments, and other interested groups; (2) raising public awareness; and (3) developing research and conservation programmes.

Projected impact for the 2017-2020 quadrennium

If the ASG achieved all of its targets, it would be able to deliver more accurate, data-driven Red List assessments for more Afrotherian species and, therefore, be in a better position to move to conservation planning, especially for priority species.

Targets for the 2017-2020 quadrennium

Assess

Red List: reassess Red List categories in species for which new information arises (e.g. Nimba Otter Shrew, *Micropotamogale lamottei*, for which we have new extent of occurrence (EOO) data) or for newly described species that may be described during the quadrennium (such as golden moles or sengis).

Research activities: (1) develop five standardised monitoring protocols for each group of Afrotherians to track trends over time and produce more data for Red List assessments; (2) complete 2–4 reassessments of taxonomy of golden moles in species where it is necessary (e.g. *Amblysomus* and *Neamblysomus* species); (3) collect basic data for 3–4 golden mole species, including geographic distributions and natural history data; (4) conduct surveys to determine distribution and abundance of five hyrax species; (5) revise taxonomy of five hyrax species; (6) develop and assess field trials for standardised camera trapping methods to determine population estimates for giant sengis; (7) conduct surveys to assess distribution, abundance, threats and taxonomic status of the Data Deficient sengi species; (8) build on current research to determine the systematics of giant sengis, especially *Rhynchocyon* species; (9) survey Aardvark (*Orycteropus afer)* populations to determine abundance, distribution and trends; (10) conduct taxonomic studies to determine the systematics of Aardvarks, with a focus on contrasting Aardvarks from central African forests with southern African savannah Aardvarks; (11) integrate the monitoring of tenrecs in the management of key protected areas with threatened species in order to track their status and threats and identify key conservation concerns; (12) conduct genetic studies to clarify the taxonomy and species diversity within the genus *Microgale*.

Communicate

Communication: (1) update and maintain the afrotheria.net website; (2) produce one Afrotheria Specialist Group newsletter every year.

Activities and results 2019

Assess

Red List

i. We did not conduct any re-assessments for the Afrotheria during 2019. Although there will likely be some new species of tenrec to assess soon, these have not yet been formally described in the literature. We have not been informed by IUCN whether we need to restart the assessment process for our species, most of which were last assessed in 2014. (KSR #1)

Least Concern Lesser Hedgehog Tenrec, *Echinops telfairi*, Madagascar
Photo: L. E. Olson, University of Alaska Museum, Fairbanks

Least Concern Grant's Golden Mole, *Eremitalpa granti*, West Coast of South Africa
Photo: Drylands Conservation Programme, Endangered Wildlife Trust

Research activities

i. No progress during 2019 as this requires funding. However, the ASG aardvark section and ASG golden mole section are investigating ways to survey their species. (KSR #43)

ii. The golden mole team were unsuccessful in acquiring funding from the Mohammed Bin Zayed Foundation and the Foundational Information Biodiversity Programme (FBIP). Dr Samantha Mynhardt will re-apply for the FBIP Small Grant in 2020 (she will be attending an FBIP grant-writing workshop at SANBI). She will also apply for the Rufford Small Grant. Samantha will take on an honours student in 2020 to work on *Amblysomus* phylogenetics, while Paulette Bloomer and Nigel Bennett will investigate the availability of funds for field work in order to establish exactly what will be feasible for the project. (KSR #12)

iii. Cobus Theron (from the Endangered Wildlife Trust, Johannesburg) has secured funding for trialling the use of sniffer dogs and drones to find and collect golden mole specimens and collect natural history information for the two threatened *Cryptochloris* species in Namaqualand. Samantha Mynhardt will be developing a method for mammalian eDNA extraction from soil, and subsequent species identification through barcode sequencing of small mtDNA fragments. Without a reference sequence for the *Cryptochloris* species, rudimentary identification will be based on phylogenetic placement. The initial goal is to detect golden mole species in these areas and catch some golden moles to obtain reference sequences. (KSR #12)

iv. An application for a National Geographic Society grant was submitted during 2019 to conduct surveys to determine distribution and abundance of five hyrax species. (KSR #12)

v. The revision of the taxonomy of five hyrax species was set back during 2019 due to the death of Hendrik Hoeck, who was a lead. Lukas Keller continues to work on this project. (KSR #43)

vi. There has been no progress with the survey of Aardvark populations due to the lack of funds to support it and the difficulty in quantifying Aardvark populations. The ASG Aardvark section has started internal discussions about how such a process might be conducted using photographic (camera trap) surveys and machine learning technology. If the technique seems promising, funding will be sought to initiate it. (KSR #12)

vii. The genomic work on Aardvark was put on hold after the PostDoc in charge of the project was not confirmed in her position (i.e. after the probationary period). The project is on hold until new funding and new candidate can be found. (KSR #43)

viii. Integration of monitoring of tenrecs in the management of key protected areas with threatened species: At present, the biggest problem is lack of a consistent approach to monitoring. 'Monitoring' means different things to different people, and for small-bodied tenrecs, particularly shrew tenrecs (*Microgale* and *Nesogale*), identification to species is almost impossible without collecting voucher specimens or genetic samples. Also, there are very few longitudinal demographic studies, so we don't yet know if and to what extent some species fluctuate. So, 'monitoring' is likely a premature concept for these species, and inventories are still needed. (Interestingly, this is an issue the US National Park Service has struggled with in its federally mandated Inventory and Monitoring Program--where does the former stop and the latter begin?) So, the primary need in this case is agreement, or at least consensus, as to what 'monitoring' entails. For large-bodied species, especially *Tenrec ecaudatus* and *Setifer setosus*, population declines have become apparent in some areas, and these are also more directly threatened by exploitation (e.g. bushmeat) and are likely being adversely affected by zoonotics. These species are easier to 'monitor' in that they can be confidently identified to species without having to inspect craniodental features that require specimen collection. But again, the primary need is for an actual strategy for monitoring. (KSR #32)

Communicate

Communication

i. Website maintenance for 2019 will be paid for in early 2020. No website updates were conducted during 2019. The Afrotheria Specialist Group gratefully received funding from the IUCN internal grants to pay for 2 years of website maintenance and updating websites for aardvarks and tenrecs. This work needs to be paid for in 2020. (KSR #28)

ii. Our annual newsletter (*Afrotherian Conservation* 15) was released in September 2019, and we have put out a first call for submissions for the 2020 edition. The editors for the last few editions have stepped down from the position, and PJ Stephenson, a previous editor for the newsletter, has resumed his role as new editor. Andrew Taylor will assist. (KSR #28)

Acknowledgements

We thank our Afrotheria Specialist Group members, all of whom are volunteers, who contributed towards ongoing work on our species and to those who contributed towards the annual newsletter. In particular, we are grateful to our section coordinators, Gary Bronner, Lee Koren, Thomas Lehmann, Voahangy Soarimalala, Link Olson and PJ Stephenson, as well as our newsletter editors, Chris and Mathilde Stuart (who edited their final newsletter in 2019 and have now stepped down from the position). We also thank Avian Designs for supporting our website at discounted rates. Finally, we again remember our group founder and long-time Co-Chair Galen Rathbun, who died in April 2019.

Summary of activities 2019

Components of Species Conservation Cycle: 2/5	
Assess	**9**
Communicate	**2**
Main KSRs addressed: 1, 12, 28, 32, 43	

KSR: Key Species Result