



# **The 13<sup>th</sup> African Small Mammal Symposium**

Mekelle, Ethiopia

16-21 September, 2019

*Programme and Abstract Book*

**Editors:**

**BRYJA Josef, MEHERETU Yonas**

some surprising findings such as the presence of *Rhinolophus clivosus*, *R. eloquens*, and *R. blasii*.

(ORAL PRESENTATION)

### **Collecting few to save many: The role of natural history museums in mammalian conservation**

FERGUSON A.

*Field Museum of Natural History, Chicago, USA*

Natural history museums (NHMs) function as vital repositories of information for better understanding our Planet. Whether it be through public education, scientific research, or on-the-ground conservation, NHMs are founded on and fueled by one major component: collections. Collections of objects, or specimens for biological material, form the heart and soul of NHMs and are vital to the mission of these institutions. However, conflict often arises around such collections, especially with regard to killing animals, and scientists working in NHMs are increasingly under pressure to both defend and explain why continued collecting is necessary. Moving beyond the moral argument as to whether or not killing animals is acceptable, this talk seeks to explore the positive impacts continued collecting has on the field of mammalogy and how NHMs can augment conservation efforts on a local and global scale.

(KEYNOTE LECTURE)

### **Diversity of shrews (*Soricomorpha*, *Soricidae*) in the Congo basin near Kisangani (Democratic Republic of the Congo)**

GAMBALEMOKE M.S. (1), MUKINZI I.J.-C. (1), KATUALA G.-B.P. (1), DUDU A.M.B. (1), LEIRS H. (2), HULSEMANS J. (2), HUTTERER R. (3), VERHEYEN E. (2,4)

(1) *University of Kisangani, Faculty of Science, Kisangani, DRC*; (2) *Antwerpen University, Belgium*; (3) *Bonn Museum, Germany*; (4) *Institut Royal des Sciences Naturelles de Belgique*

In Kisangani and its hinterlands, shrews are relatively little studied. This study combined the genetic tools (mt gene 16S rRNA and nuclear gene ApoB) with anatomical, cranio-dental morphometrics and ecological data to review shrew diversity and taxonomy in the region of Kisangani. The Congo River and its main tributaries were considered as barriers for their distribution. Shrews were trapped on open transects and in a closed area of 1ha, using four types of traps: Pitfall, Sherman, Museum special, and Victor. Shrews were captured in different habitats: primary forest, old secondary forest, old fallow lands, and old palm groves.

This study enabled us develop a new overview of shrew biodiversity along the Congo River and its major tributaries (Maiko, Tshopo, Lindi, Lomami, Aruwimi, Itimbiri, etc.). The

molecular markers allowed to separate 21 "cryptic operational taxonomic units": e.g. *Scutisorex* sp1, (presumed to differ from *S. congicus*, *S. somereni*, *S. thory*), *C. cf. olivieri* is split into three distinct populations (*C. olivieri* sp1, *C. olivieri* sp2 and *C. olivieri* sp3) ; the clade *C. littoralis* contains three populations: *C. littoralis* sp1, *C. littoralis* sp2, and *C. littoralis* sp3., etc. Because of these cryptic species, the use of genetic tools, combined with morphological, cranio-dental, and ecological data, as well as the distribution areas in reference to type localities, proved to be usefull for reviewing the taxonomic status of shrews.

(POSTER)

### **An update on *Rhodomys* sp. distribution, ecology and behavioural characteristics**

GANEM G. (1,2), DUFOUR C.M-S. (1,2,3), AVENANT N.L. (4), KOTZE L. (2), PILLAY N. (2)

(1) Montpellier University, Institute of Evolutionary Sciences, France; (2) Wits University, Department of Animal Plant and Environmental Sciences, Johannesburg, South Africa; (3) Centre of Functional and Evolutionary Ecology, CNRS, University of Montpellier, France; (4) National Museum and Centre for Environmental Management, University of the Free State, Bloemfontein, South Africa

Until recently, the genus *Rhodomys* was considered monospecific. Hence the bulk of studies addressing its ecology and behaviour reported population variations, which in light of recent knowledge could be species differences. Indeed, three studies described the phylogeography of the genus, revealing the existence of at least 5 species, occupying distinct environmental niches, although their distribution range and limits are still under investigation. Here we will, first, clarify the distribution of *Rhodomys* species and, second, report on our ongoing research involving several contact areas between *Rhodomys* species. Indeed, *Rhodomys* offers the opportunity to address ecological divergence between species under common garden conditions, and we used this opportunity to investigate the impact of environmental conditions versus species interference on ecological and behavioural divergence within this genus.

(ORAL PRESENTATION)

### **Sampling distribution of bats (Chiroptera, Mammalia) in Protected Areas in the hinterland of the Kisangani region, DR Congo**

GEMBU T., MUSABA A., MALEKANI B., NGOY S., GAMBALEMOKE MB., NEBESSE M., VERHEYEN E., DUDU A.

Faculty of Science, University of Kisangani, Department of Ecology and Animal Resource Management, Kisangani, DRC

The "Centre de Surveillance de la Biodiversité (CSB/Kisangani) develops research Programs in the Protected Areas of the Kisangani region in order monitoring not only endemic,