



# The 14th African Small Mammal Symposium



SCIENTIFIC PROGRAMME & ABSTRACTS

17 - 22 September 2023 | Swakopmund | Namibia

Open your mind

 [www.unam.edu.na](http://www.unam.edu.na)

31 August 2023

Dear Conference Participants,

The Local Organising Committee (LOC) has great pleasure in welcoming you to the 14<sup>th</sup> African Small Mammal Symposium (14<sup>th</sup> ASMS) held at the Swakopmund Plaza Hotel, Namibia.

We would like to thank you, the participants, for making the effort to attend this conference. Without your presentations and stimulating after-hour discussions this conference would not exist. We are also grateful to several institutions that have provided support, resources or funds that have been channelled into making this conference better for you. We would like to thank the Namibian Chamber of Environment (NCE) for providing funds to cover expenses for the logistic arrangements; the Oppenheimer Generations Research and Conservation (OGRC) for sponsoring scientists from Africa, Europe, and South/North America.

Finally, thanks to the University of Namibia, the National Museum of Namibia, and the Directorate of Scientific Services (Ministry of Environment, Forestry & Tourism) for the institutional support that was given to the 14<sup>th</sup> ASMS, without which we would not have been able to successfully host this conference.

We hope that you enjoy your stay here and take some time to explore the beautiful Namib Desert and the rest of Namibia, during and after the conference.

Yours sincerely,

**Dr. Seth J. Eiseb & Dr. Sacharian P. Muteka**  
**On behalf of the Local Organizing Committee**

#### **Local Organizing Committee**

- Dr. Seth J. Eiseb, *Dept. of Environmental Science, UNAM, Private Bag 13301, Windhoek, Namibia (Co-chair)*
- Dr. Sacharian P. Muteka, *Dept. of Animal Production, Agribusiness & Economics, UNAM, Private Bag 13188, Windhoek, Namibia (Co-chair)*
- Ms. Salmi Kapala, *Dept. of Environmental Science, UNAM, Private Bag 13301, Windhoek, Namibia*
- Ms. Ester Kayala, *Dept. of Environmental Science, UNAM, Private Bag 13301, Windhoek, Namibia*
- Ms. Laina Abiatar, *Dept. of Environmental Science, UNAM, Private Bag 13301, Windhoek, Namibia*
- Ms. Lina Mushabati, *Dept. of Wildlife Management & Tourism, UNAM, Private Bag 1096, Katima Mulilo, Namibia*
- Ms. Lavinia Haikukutu, *Dept. of Animal Production, Agribusiness & Economics, UNAM, Private Bag 13188, Windhoek, Windhoek, Namibia*
- Dr. Francois Becker, *National Museum of Namibia, Ministry of Education, Arts and Culture, P O Box 1203, Windhoek, Namibia*
- Mrs. Apollonia Dirks, *National Museum of Namibia, Ministry of Education, Arts and Culture, P O Box 1203, Windhoek, Namibia*
- Mr. Kenneth /Uiseb, *Wildlife Monitoring & Research, Directorate of Scientific Services, Ministry of Environment, Forestry & Tourism, Private Bag 13306, Windhoek, Namibia*
- Ms. Novald Iiyambo, *Wildlife Monitoring & Research, Directorate of Scientific Services, Ministry of Environment, Forestry & Tourism, Private Bag 13306, Windhoek, Namibia*

### **Scientific Committee**

- Dr. Seth J. Eiseb, *Dept. of Environmental Science, School of Science, University of Namibia, Namibia*
- Prof. Rhodes H. Makundi, *Pest Management Centre, Sokoine University of Agriculture, Morogoro, Tanzania*
- Prof. Apia W. Massawe, *Pest Management Centre, Sokoine University of Agriculture, Morogoro, Tanzania*
- Prof. Ara Monadjem, *Dept. of Biological Sciences, University of Eswatini, Eswatini*
- Dr. Voahangy Soarimalala, *Association Vahatra, Antananarivo, Madagascar*
- Prof. Peter J. Taylor, *Afromontane Research Unit, Dept. of Zoology & Entomology, University of the Free State, South Africa*
- Dr. Nico Avenant, *Dept. of Mammalogy, National Museum, Bloemfontein, South Africa*
- Prof. Petr Benda, *National Museum, Prague, Czech Republic*
- Prof. Josef Bryja, *Institute of Vertebrate Biology, Academy of Sciences of the Czech Republic, Brno, Czech Republic*
- Prof. Steven Belmain, *Natural Resources Institute, University of Greenwich, United Kingdom*
- Dr. Christiane Denys, *Muséum national d'Histoire naturelle, Paris, France*
- Dr. Laurent Granjon, *Institut de Recherches pour le Développement, Montpellier, France*
- Prof. Herwig Leirs, *University of Antwerp, Antwerp, Belgium*
- Dr. Victor Rambau, *Stellenbosch University, South Africa*

## Exploring Uganda's bat diversity: a rapid assessment utilizing a combination of techniques

Budinski, I.<sup>1\*</sup>, Montauban, CM.<sup>2,3</sup>, Ketola, CT.<sup>4</sup>, Hillier, LP.<sup>5</sup>, Kirkby, CA.<sup>4</sup>, Lloyd, JN.<sup>6</sup>, Kwarija, I.<sup>6</sup>, and Kityo, R.<sup>7</sup>

<sup>1</sup>Department of Genetic Research, Institute for Biological Research "Siniša Stanković" – National Institute of Republic of Serbia, University of Belgrade, Belgrade, Serbia; <sup>2</sup>Global South Bats, Massachusetts, USA; <sup>3</sup>Department of Life Sciences, Imperial College London, Ascot, United Kingdom; <sup>4</sup>Asociación Fauna Forever, Puerto Maldonado, Madre de Dios, Perú; <sup>5</sup>Noctua Ecology Ltd, Bristol, United Kingdom; <sup>6</sup>Sunbird Hill, Kibale Forest edge, Bigodi, Uganda; <sup>7</sup>Department of Zoology, Makerere University, Kampala, Uganda

\*E-mail: [ivana.budinski@ibiss.bg.ac.rs](mailto:ivana.budinski@ibiss.bg.ac.rs)

Uganda is recognised as a biodiversity hotspot, but knowledge gaps remain, especially for lesser-known taxonomic groups like bats. More comprehensive taxonomic studies and combined monitoring methods are needed to assess bat species' distributions and populations. In early 2023, NGO Fauna Forever partnered with local biologists, rangers and community members to conduct a rapid bat diversity assessment at eight privately-owned sites across Uganda, mostly in close proximity of National Parks. We used a combination of ground mist nets, a triple high mist net system, and a 2-bank harp trap to survey bats. We captured 664 bats of 44 species from 8 families. Each method revealed unique captures, with 38% of individuals caught in the triple high net (including 8 species not trapped elsewhere), all but one of the Nycterid bats caught in ground nets, and the only individual of *Kerivoula smithii* trapped in the harp trap. We emphasize the importance of using a combination of methods to assess the bat community, and advocate for training local conservationists in diverse survey techniques. Furthermore, we share our experience delivering workshops at Sadhguru School to showcase the diversity and importance of local bat fauna. Our study yields significant contributions, including new species distribution records, genetic and morphometric data, and hand-release echolocation call recordings. These findings will contribute to conservation efforts, taxonomic assessments, and the growth of a bat call reference library in Uganda. Undoubtedly, continuous monitoring of biodiversity is crucial for understanding population trends, detecting threats, and formulating effective conservation strategies.

### Update on bat research in Burkina Faso.

Kangoyé, NM<sup>1\*</sup>, Thiombiano, NG.<sup>1</sup>, and Oueda, A.<sup>1</sup>

<sup>1</sup>Department of Animal Biology and Physiology, Life and Earth Sciences Training and Research Unit, University Joseph KI-ZERBO, Ouagadougou, Burkina Faso

\*E-mail: [kangoyemalika@yahoo.fr](mailto:kangoyemalika@yahoo.fr)

Bats are one of the most ecologically diverse groups of vertebrates. They are considered key species for maintaining ecosystem functions. Despite the important ecological role that bats play throughout the world, they are often neglected and rarely studied, especially in Burkina Faso. Our knowledge of these species is very limited, so we can't protect them and make the most of the ecosystem services they can provide. We, therefore, set ourselves the goal of studying bats in Burkina Faso. Then since 2007, we conducted a literature review on bats, supplemented by bat captures and population surveys. As of today, bats diversity was investigated, and this show up to 16 species newly recorded in Burkina Faso rising the known from Burkina Faso. Bats distribution and population were analyzed across the country following climate and vegetation and North to South gradient. From distribution records, suitable habitats for bat species were identified using Maxent approach. After this, we also investigate parasites from bats and found that they host several helminths and bacteria. Using an ethnobiological approach, the perceptions, and practices of people in the city of Ouagadougou in contact with bats we also analyzed to anticipate exposure to zoonosis. Then studies on the bats of Burkina Faso cover today several areas like biodiversity, ecology, parasitology, and ethnozoology. This trend is to be encouraged to provide a better understanding of this fauna which is little studied in our country.