

# The 4th African Bioacoustics Community Conference

**1st - 6th September 2024**

**Breakwater Lodge, Cape Town**

**Both IN-PERSON and ONLINE tickets available**

*Making Africa Heard*



# Sunday

01/09/2024

**16:00 - 19:00** - Ice Breaker event & delegate registration

# Monday

02/09/2024

**08:00 - 08:45** Delegate registration continued

**08:45 - 09:00** Opening Address - Tess Gridley

**09:00 - 10:00 - Plenary Address:** Angela Stöeger-Horwath

“Vocal Communication in African elephants: from production to function and potential implications”

**10:00 - 10:15 - Tea and Coffee Break**

## Session 1: Biology and Behaviour

**10:15 - 10:30** Michal Budka - "Species-specific strategies for acoustic space competition-avoidance in tropical bird"

**10:30 - 10:45** Rohini Balakrishnana - "Predation risk of acoustic and vibratory signalling in a multimodally duetting katydid"

**10:45 - 11:00** Rachel Probert - "Case study: the short-term impacts of firework noise on marine species"

**11:00 - 11:15** Giacoma Constalunga - "Wild nightingales flexibly match whistle pitch in real time"



**11:15 - 11:30** Martine Hausberger - "Could vocal communities of territorial songbirds constitute a pseudo-social system? Testing dialects as potential community markers in social versus territorial congeneric songbird species"

**11:30 - 11:45** Vesta Eleuteri - "How elephants say "Hello": Vocal-gestural combinations and audience directedness in the greeting behaviour of African savannah elephants"

**11:45 - 12:00** Mumi Kikuchi - "Comparative study of vocalizations and feeding sounds of African manatees in captivity and the wild"

**12:00 - 12:15** Mathieu Mahamoud-Issa - "Context of communal singing and mechanisms of song coordination in the Yellow-breasted barbet (*Trachyphonus margaritatus*), a group-living bird species that performs vocal duet and chorus."

**12:15 - 12:30** Catherine Carr - "Sound localization behavior in the Barking Gecko"

**12:30 - 12:45** Daniela Hedwig - "Call combination in African forest elephants *Loxodonta cyclotis*"

### **12:45 - 13:45 Lunch**

**13:45 - 14:15** Tess Gridley - African Bioacoustics Community review

## **“The Basics of Bioacoustics” Special Session**

**14:15 - 17:15** (including breaks)

**Hosted by Rohini Balakrishnana, Larissa Sayuri M. Sugai & Ben Gottesman**

We will be joined by experts who will provide training on the fundamentals on conducting bioacoustics research, including acoustic data collection, processing, and analysis in the software Raven, along with an introduction to BirdNet.

[africanbioacoustics@gmail.com](mailto:africanbioacoustics@gmail.com)

[www.africanbioacoustics.org](http://www.africanbioacoustics.org)



# Tuesday

03/09/2024

**09:00 - 10:00 Plenary Address:** Beth Brady - "What Does the Manatee Say? Manatee Vocalizations in Florida and Beyond"

**10:00 - 10:15 - Tea and Coffee Break**

## Session 2: Speed Talks and Posters

**10:15 - 10:20** Katharina Prager - "Calling with the pack – African wild dog choruses"

**10:20 - 10:25** Matthew Clark - "Deep learning detection of bird and amphibian species of the Cape Region, South Africa"

**10:25 - 10:30** Thandiswa Maduna - "3-D functional skull morphology and acoustics signal design – a within and across species analysis of southern African horseshoe bats"

**10:30 - 10:35** Ashlee Lillis - "Not so shrimple: how spatiotemporal variation in the ocean's noisiest animal impedes it's use as an easy ecoacoustic metric"

**10:35 - 10:40** Alice Affatati - "Quantifying Prosody in Marine Mammals: a tool to decipher internal states and support conservation efforts"

**10:40 - 10:45** Robyn Daniels - "Interannual Variability of the Acoustic Occurrence of Killer Whales Around the Prince Edward Islands"

**10:45 - 10:50** Viktoria Stauffer - "Conservation research towards an acoustic monitoring system for African elephants"



**10:50 - 10:55** Martha Mutiso - "Citizen Science: A journey into Bioacoustics in East Africa"

**10:55 - 11:00** Attila Aradi - "Evaluating Machine Learning (AI) Approaches for Classification and Clustering of Marine Mammal Vocalizations in Underwater Acoustic Environments"

**11:00 - 11:05** Yoba Alenga "Bat sonotype as a novel insight into the Congo basin rainforest dynamic"

**11:05 - 11:10** Toka Mosikidi - "Understanding the unrevealed soundscape dynamics of the Northern Drakensberg"

**11:10 - 11:15** Consolata Gitau "Use of passive acoustic monitoring to evaluate restored and degraded tropical Savannah ecosystems in Africa"

**11:15 - 11:20** Julian Burger - "Developing a Social and Vocal Tracking System for the Naked Mole-Rat"

**11:20 - 11:25** Katharina Prager - "The adaptive function of the cheetah chirp"

**11:25 - 11:30** Buyisile Makhubo - "Testing the audibility of *Hipposideros caffer* echolocation pulses to species of eared moths"

**11:30 - 11:35** Lisa Nupen "Prenatal acoustic communication in southern African birds"

**11:35 - 11:40** Georgia Muller - "Call Library Development and Occupancy Modelling of Small Mammal Species on Telperion Nature Reserve"

**11:40 - 11:45** Maria Maust-Mohl - "Temporal trends in the acoustic activity of the common hippopotamus (*Hippopotamus amphibius*)"

**Participants above will continue to share their work via poster presentations**





**12:30 - 13:30 Lunch**

**13:30 - 14:30 Plenary Address:** Simon Elwen presenting the work of Guilherme Frainer - "A naturalist toolbox: Investigating sound production in dolphins from anatomy to machine learning"

**14:30- 14:45 - Tea and Coffee Break**

## **Session 3: Advanced Methodology & Technology**

**14:45 - 15:00** Vanessa Süßle - "Automated Bioacoustic Monitoring on Unlabeled Data Using Artificial Intelligence"

**15:00 - 15:15** Ellen White - "Can one model do it all? Exploring the application of multi-sound source detection algorithms to new marine soundscapes"

**15:15 - 15:30** Lorène Jeanet - "Unlocking the potential of unlabeled data in automatic bat vocalisation classification from deep learning models"

**15:30 - 15:45** Jonathan Timperley - "Developing acoustic monitoring of soil invertebrates: can current challenges be overcome?"

**15:45 - 16:00** Reyhaneh Abbasi- "Challenges in Detecting Ridges of Mouse Ultrasonic Vocalizations"

**16:00 - 16:15** Simon Chamaille-Jammes - "The wehear logger: a new device to study the behaviour of animals and their responses to the environment"



**16:15 - 16:30** Danielle Harris - "Estimating whale densities from acoustic data over large temporal and spatial scales"

**16:30 - 16:45** Xavier Raick - "Navigating the Depths of Coral Reef Communication – Unveiling the Pros and Cons of Diverse Methods in Understanding Fish Communication"

**16:30- 17:00 - Break**

**17:00 - 19:00 Practical Recording Session**

# Wednesday

**04/09/2024**

**09:00 - 10:00 Plenary Address** Ashlee Lillis - "Interviews with Fish: Ecoacoustic monitoring of reef habitats in East Africa"

**10:00- 10:15 - Break**

## Session 4: Applied & Eco-acoustics

**10:15 - 10:30** Collins Ongore - "Improved biomass estimations from species-by-species resolution of Lake Victoria's multiannual acoustics data using fish schools' analysis and updated Caridina TS"

**10:30 - 10:45** Jack Fearey - "Long term PAM of unique vocal signatures to estimate abundance of resident bottlenose dolphins"

**10:45 - 11:00** Shahir Ramndit - "Exploring Coral Reef Soundscape Dynamics: Acoustic Indices as Potential Biodiversity Assessment Tools in Sodwana Bay"



**11:00 - 11:15** Donovan Tye - "Evaluating the performance of acoustic indices as proxies for bird diversity in semi-arid savanna habitats"

**11:15 - 11:30** Francis Brooke - "Use of acoustic recording units to determine presence and use of Cape Parrot (*Poicephalus robustus*) habitat within forests in the Amathole Mountain Range - development of a vocal classifier"

**11:30 - 11:45** Thabang Motaung - "Call and not shoot: Testing and application of acoustic monitoring of Black backed jackal in two contrasting agricultural land use."

**11:45 - 12:00** Elizabeth Znidersic - "Acoustic restoration: using soundscapes to benchmark and fast-track recovery of ecological communities"

**12:00 - 12:15** Miles Parsons - "Listening to soundscapes through short-term environmental events"

**12:15 - 12:30** Edward Jenkins "Comparing the use of both autonomous recording units and point counts to assess avian diversity at two sites in Africa"

**12:30 - 13:30 Lunch**

## Session 5: Citizen Science

**13:30 - 13:45** Tess Gridley - "How listening for life can help wildlife conservation in Africa"

**13:45 - 14:00** Isla Keesje - "World Oceans Passive Acoustic Monitoring Project: Opportunities for African Involvement in Exploring a Day in the Life of the Worlds Ocean Soundscapes"

**14:00 - 14:15** Alex Rogers - "AudioMoth: A low-cost, open-source acoustic monitoring device"





**14:15 - 14:30** Lucille Chapuis - "Development of a low-cost hydrophone for research, education, and community science"

**14:30- 14:45 - Tea and Coffee Break**

**14:45 - 15:00** Audrey Looby - "Underwater Sound Production in Fishes and Invertebrates: Global Syntheses with Highlights from African Species"

**15:00 - 15:15** Miles Parsons - "Global library of underwater biological sounds: GLUBS"

**15:15 - 15:30** Nathalia Serpa - "Scientific Collection of Sounds of the African Bioacoustics Community: recording and archiving wildlife sounds and soundscapes from South Africa"

**15:30 - 16:00** Samuel Kudjodzi - "Sound Art Presentation forms for citizen science and conservation: immersive media approaches"

**16:00- 16:30 Break**

**“Bioacoustics Beyond Biology”  
Special Session**

**16:30 - 18:30**

**Hosted by Caitlin Mkhasibe, Claire Homewood (CareCreative)  
& Sarah Woodward**

This special session will focus on the concept of the Theatre Voice and its adaptability for voice training, the use of acoustics in art for public engagement via visual, sound art installations, and explore how science can find its way into public spaces, for more effective and meaningful information transfer to the community, through participatory graffiti art.

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# Thursday

05/09/2024

**09:00 - 10:00 Plenary Address** Elodie Briefer - "Vocal communication and group dynamics: An overview and study cases in birds and mammals"

**10:00 - 10:15 Tea and Coffee Break**

## Session 6: Evolution & Behaviour

**10:15 - 10:30** Erin Ross-Marsh - "An investigation of the cultural evolution of humpback whale song between the 2018 northward and southward migrations in southern Africa"

**10:30 - 10:45** Vanessa Couldridge - "Temporal partitioning of *Bullacris unicolor* (Orthoptera: Pneumoridae) calling activity to avoid predation"

**10:45 - 11:00** Alexander Kirschel - "Genetic and environmental determinants of vocal frequency variation in tinkerbirds"

**11:00 - 11:15** Emma Swanepoel - "Characteristics and evolution of fin whale song off the coast of South Africa"

**11:15 - 11:30** Anna Bastian - "Indication of acoustic character displacement in South African horseshoe bats"

**11:30 - 11:45** Berndt van Rensburg - "Assessing acoustic competition between sibling frog species using rhythm analysis"

**11:45 - 12:00** Tomasz Osiejuk - "Size matters, song frequency in African doves affects response to territorial intruders"



**12:00 - 12:15** Mogaletloa Madiseng - "The effect of habitat on avian vocalisations – does this apply to the Sabota Lark *Calendulauda sabota*?"

**12:15 - 12:30** Iniunam Iniunam - "Song recordings and environmental factors influencing the response rate of owl species in an afrotropical ecosystem"

**12:30 - 13:30 Lunch**

**13:30 - 14:30 Plenary Address** Peter Tyack - "Effects on marine mammals of underwater sound from human activities"

**14:30 - 14:45 Tea and Coffee Break**

## **Session 7: Conservation & Acoustic Monitoring**

**14:45 - 15:00** Francesca Terranova - "Identification of active nests in an African penguin colony using autonomous recording units"

**15:00 - 15:15** Ivana Schafer - "Acoustic occurrence and behaviour of Baleen Whales around the subantarctic Prince Edward Islands"

**15:15 - 15:30** Jonathan Growcott - "The secret acoustic world of leopards: Vocal individuality in leopards and its potential for conservation monitoring"

**15:30 - 15:45** Clinton Factheu - "Passive Acoustic Monitoring reveals manatees spatial and temporal acoustic activities in Lake Ossa, Cameroon"



**15:45 - 16:00** Sasha Dines - "SWORD: Signature Whistles For Occurrence, Recapture And Density For Indian Ocean Humpback Dolphins, *Sousa plumbea* In South Africa"

**16:00 - 16:15** Fannie Shabangu - "A catalogue of killer whale calls around two sub-Antarctic Islands"

**16:15 - 16:30** Mangala Gowri Viswanathan - "Temporal evolution of characteristics of Antarctic blue whale calls off the west coast of South Africa"

**16:30 - 16:45** Colin Swider - "Evaluating environmental determinants of illegal gun hunting using passive acoustic monitoring"

**16:45 - 17:00 Tea and Coffee Break**

## **“Navigating a career in Bioacoustics” Special Session**

**17:00 - 19:00**

**Hosted by Clinton Factheu**

This session is aimed towards students, offering advice on how to navigate a career in bioacoustics research and beyond. The session will include the stories of African students, how they were introduced to the field of bioacoustics and their journey to where they are now, followed by a Q&A session hosted by both African students and experts in the field.



# Friday

06/09/2024

## Full Day's Workshop

### **MANTA: Making Ambient Noise Trends Accessible**

*Hosted by Jennifer Miksis-Olds*

MANTA is a tool for the community to enable comparisons between soundscapes and identification of ambient sound trends required by stakeholders. MANTA enhances the value of individual datasets by assisting users in creating thorough calibration metadata and internationally recommended products, comparable over time and space, to ultimately assess ocean sound at any desired scale up to a global level. The goal of this workshop is to introduce MANTA and to run MANTA on your own dataset.

### **Acoustic Recording and Data Analysis with Wildlife Acoustics**

*Hosted by Paul Howden-Leach*

This workshop will provide hands-on training with Wildlife Acoustics' diverse selection of terrestrial acoustic recording equipment, followed by acoustic data analysis training in the Kaleidoscope Pro Analysis Software.





# Sponsors

