



# SEOSAW Quarterly Newsletter: March 2023

## **What is SEOSAW?**

[SEOSAW](#) is a network of scientists and plots unified by a shared interest in understanding the changing ecology of African woodlands and savannas.

For more information, see 'What is SEOSAW?' , 'Who owns the data?' , and 'Request our Data' at the bottom of the newsletter.

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## Science Meeting- May 16

We are planning a Science Meeting for **May 16, 13:00-16:00 BST/GMT+1**. The topic will be *Science for Policy* and be jointly hosted by the [Miombo Network](#).

It will have a very similar structure to the last meeting where there will be equal parts presentations and discussions. We are still determining speakers, but we will discuss how

science can be used to inform policy on biodiversity, sustainable use, carbon, and climate change. More details to follow soon!

<https://ed-ac-uk.zoom.us/j/88435893897>

**Meeting ID:** 884 3589 3897

**Passcode:** SEOSAW23

## Updates from the Field





*1 - Ongava, Namibia*



*2 - Ongava, Namibia*



*3 - Ongava, Namibia*



*4 - Ongava, Namibia*



*5 - Ongava, Namibia*



6 - Ongava, Namibia

## Namibia

In February fieldwork was led by Vera De Cauwer (NUST, Namibia University of Science and Technology) and John L. Godlee (University of Edinburgh) in [Ongava Game Reserve](#), in collaboration with [Ongava Research Centre](#). With a team of five students from NUST, they set up 11 100x100 m (1 ha) new plots in a mixture of woodlands, shrublands and grasslands. These new plots are the driest permanent plots in the SEOSAW database, with just 370 mm rainfall per year, on average. The woodlands are dominated by a mixture of *Colophospermum mopane* and *Commiphora* species. More information about this project can be found [here](#).



7 - Musingo Mbuvi, John Ngugi Kigomo, Chemuku Wekesa, Leila Ndalilo, Abdalla Kisiwa, Sylvia Mwalewa, Solomon Kipkoech, Collins Masinde, Rufo Jillo, Linet Muinde, Nixon Kilimo, Julius Gicheru, and Ruth Kabale







## Kenya

Kenya Forestry Research Institute (KEFRI) established permanent sample plots for long-term monitoring of vegetation change as well as the socio-ecological factors driving the changes over time at University of Nairobi (UON) woodland- Kibwezi in January. Beyond setting new plots, they conducted household surveys, key informant interviews, and focus group discussions to better understand the socio-ecology of the area. Full report [here](#).







## Tanzania

Dr. Njoghomi, E. Elisha (PI) and other PIs; Mr Naftali L. Mahewa, Mr. Sitta Malulu and Mr Josephat Kalugasha carrying out herbaceous layer sampling excersice at Kitulangalo PSP in Morogoro, thrusting forward the SEOSAW initiatives in Tanzania that will further our understanding on the distribution, diversity and conservation status of the ground layer species for miombo woodlands in Tanzania.



*8 - Hwedza, Zimbabwe*



*9 - Hwedza, Zimbabwe*



*10 - Hwedza, Zimbabwe*



*11 - Hwedza, Zimbabwe*

**Zimbabwe**

University of Zimbabwe student Eddie Nyamugadza and his supervisor Clemence Zimudzi (SEOSAW steering committee member) recently completed fieldwork in Hwedza district. He set permanent sample plots in areas including Imire Game Park and Hwedza resettlement area. Field work took place between 19 and 30 January 2023. Their main objectives were mainly to set out 1 ha permanent sample plots and as well to soil samples following the SECO protocol.

**Please let Lorena know if you want your fieldwork to be highlighted in the next newsletter!**

## Faunal Activities for Climate Action

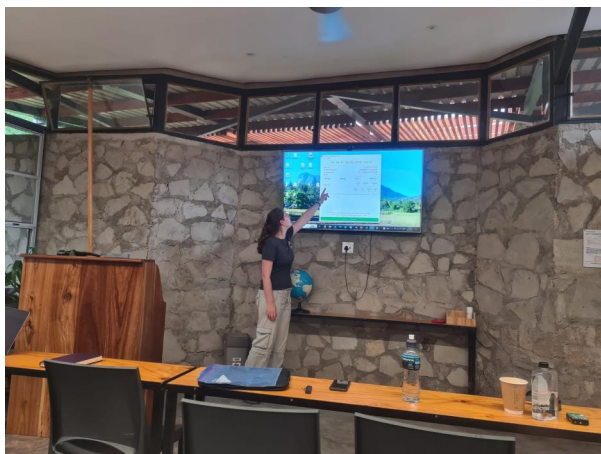




*12 - SEOSAW plot protocol discussion*



*13 - Discussing protocol*





*14 - Setting audiomoth*



*15 - SEOSAW plot protocol discussion*



*16 - Drive in Kruger*



*17 - SEOSAW plot protocol discussion*



18 - SEOSAW plot protocol discussion



19 - Exterior of audiomoth



20 - Interior of audiomoth



*21 - Plane on way to Skukuza*

Faunal Activities for Climate Action (FACA) is a project lead by Dr. Sheila Holmes, Prof Mariska te Beest and Prof Joris Cromsigt, and funded by Swedish research links network grant. The project aims to examine faunal abundance at SEOSAW sites using [audiomoths](#). The goal of the workshop (Feb 27-Mar 2) was to create a protocol for implementing audiomoths in accordance with existing plots in Angola, Mozambique, South Africa, and new plots to be set this year in Madagascar. The workshop was a grand success with a comprehensive draft protocol produced by the end with a plan for implementation. Look for more updates on this exciting project later in the year as data collection begins!

Attendees: Dr. Sheila Holmes (Swedish University of Agricultural Sciences), Prof Mariska te Beest (Utrecht University, Netherlands), Prof Joris Cromsigt (Swedish University of Agricultural Sciences), Dr. Francisco Maiato Pedro Gonçalves (Herbarium of Lubango, Angola), Jone Fernando Jr. (Universidade Eduardo Mondlane, Mozambique), Dr. Sehenó Andriantsaralaza (University of Antananarivo, Madagascar), Donovan Tye (Organization for Tropical Studies, South Africa), Lorena Benitez (University of Edinburgh, UK)

**Special thanks to Skukuza Science Leadership Initiative, especially Thandeka Mathenjwa, Laurance Kruger, and Donovan Tye.**

## African Forest Forum Project

**SEOSAW, Miombo Network and the African Forest Forum (AFF) are collaborating under a project named “Strengthening the understanding of the dynamics of African forest vegetation under changing climate through permanent sampling plots” managed by the AFF.**

The team lead by Dr. Jonathan Muledi from Lubumbashi University (DRC) with support from Prof Natasha Ribeiro, Prof Emmanuel Chidumayo and Prof Judith Kamoto is expected to analyse data from long-term monitoring plots in woodlands and savannas of Southern Africa

and report to AFF how the changing climate is affecting these systems. Specifically, the aim is to assess how tree dynamics in the selected sites have changed over time using time series PSP data, how these tree dynamics are associated with climate and weather events (using historical climate data) and how these dynamics might be altered in future considering the projected climate change.

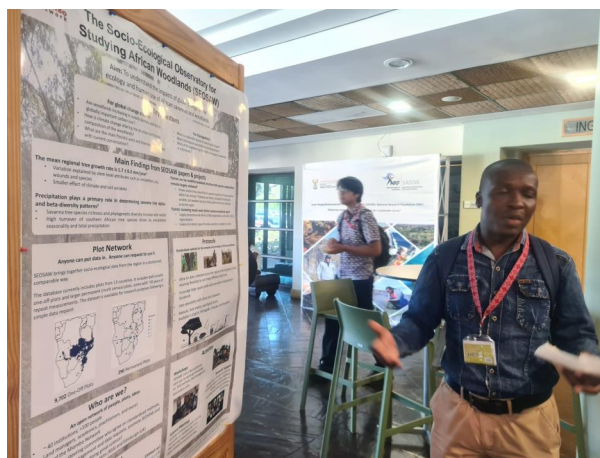
The project which is expected to be completed between three to four months, officially started with a data analysis workshop held in hybrid format from 13 to 21 March 2023 comprising mainly the data analysis team (Tatenda Gotore, Urbain Mumba Tshanika and Dr. Penelope Mograbi) supported by Project Lead (Dr. Muledi) and SEOSAW Co-Chairs (Dr. Casey Ryan and Prof. Sally Archibald). The main objective of the workshop was to put together the required data (both climate and vegetation) for the analysis and to get started with analysing the data and observing any trends.

### Savanna Science Network Meeting





22 - Tatenda Gotore presenting his results on Zimbabwe growth rates



23 - Tatenda Gotore discussing SEOSAW during the poster session



24 - Sachin Doarsamy from SAEON ([South African Environmental Observation Network](#))

Several members of SEOSAW attended the Savanna Science Network Meeting March 6-9!

- Sally Archibald (Co-Chair), Tatenda Gotore (Staff), Mariska te Beest (Steering Committee), Nikki Stevens (Steering Committee), Lorena Benitez (Staff), and many data owners were present.
- Tatenda Gotore presented his growth rates results from plot data collected by Zimbabwe Forestry Commission.
- Rob Davies (SEOSAW data user; University of Sheffield) and Sally Archibald shared a session on precipitation impacts on vegetation during which Rob shared his results based on SEOSAW data.
- Lorena Benitez presented her results on mapping the vegetation of Zimbabwe using Zimbabwe plot data for model training.
- Tatenda and Lorena presented a poster on SEOSAW's early results and recent activities. Engagement was good and several people indicated an interest in providing or using the data.
- Sachin Doarsamy from SAEON ([South African Environmental Observation Network](#)) presented a poster about the new plots they are setting using the SEOSAW protocol.



*25 - Rob Davies (U Sheffield) testing how palatable leaves are!*



*26 - Skukuza flux tower and plots*



*27 - Explanation of vegetation at Skukuza by Felix Skhosana*



*28 - Explanation of vegetation at Skukuza by Felix Skhosana*



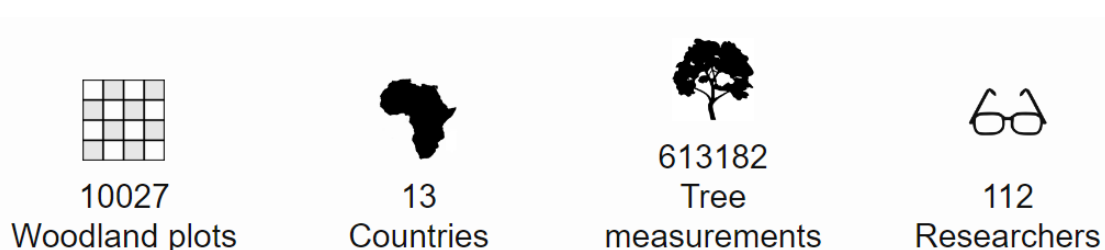
*29 - Explanation of vegetation at Skukuza by Humbelani Thenga and Sally Archibald*



30 - Explanation of vegetation at Skukuza by Humbelani Thenga

During the meeting, a few SEOSAW members visited the Skukuza eddy covariance flux tower site. The purpose and history of the flux tower were described by Felix Skhosana (Council for Scientific and Industrial Research), Humbelani Thenga (Council for Scientific and Industrial Research), and Sally Archibald. Felix and Humbelani gave an overview of the site and talked about how they are using the tower's data for their PhD's. Sally Archibald explained how catenas determine the vegetation at the site and discussed how herbivory impacts the vegetation.

## Version 3.1 of SEOSAW Dataset



**SEOSAW now has more than 10,000 plots across 13 countries, including 326 permanent plots!**

Dr. John Godlee and many other SEOSAW members worked extremely hard to put together a new and improved version of the SEOSAW dataset. The new version includes:

- New plots were added from Namibia (J. Godlee & V. De Cauwer) and Zimbabwe (A. Muchawona, ZFC)
- New censuses from permanent plots in DRC (J. Muledi) and Mozambique (N. Ribiero)

## Opportunities!

**Hundreds of sustainability scholarships announced for African students**

Some 850 sustainability-focused postgraduate scholarships for students from Africa have been announced by the University of Edinburgh and the Mastercard Foundation Scholars Program. Learn more [here](#).

### **SEOSAW long-term data collection workshop**

SEOSAW is planning to host an online workshop in August or September to analyse data from PSPs to get estimates for change in biomass, growth rates, and mortality. If you are interested in participating and have longterm data the analyse, please email Lorena ([lbenitez@ed.ac.uk](mailto:lbenitez@ed.ac.uk)).

### **Postdoctoral Research in Soil Sensing and Society**

Information [here](#)

## What is SEOSAW?



SEOSAW comprises a network of scientists and also a network of vegetation survey plots across southern and eastern Africa. Members of SEOSAW conduct diverse research and come from a variety of institutions (academic, government, private, etc.), but are unified by a shared interest in the changing socio-ecology of woodlands and savannas.

**The long-term goal of SEOSAW is to understand the response of African woodlands to global change.**

SEOSAW is managed communally, and the scope of SEOSAW's activities is open to change as the network and its members' research interests develop. SEOSAW's main purpose is to connect researchers and their data, and to facilitate collaborative research via standardized methods and a curated, accessible database. Anybody is welcome to become part of SEOSAW, by contributing data or expertise, or by using the SEOSAW dataset for their research.

Who owns the data?

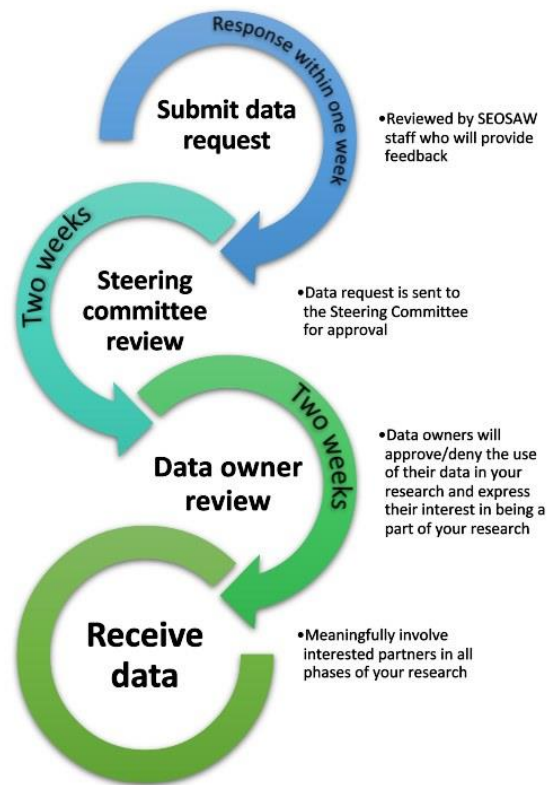


**SEOSAW data belong to the people who collected it.** SEOSAW oils the wheels by standardising the data and storing it in a common database, but the intellectual property belongs to whoever puts the data in, and the data can only be used by others with the owner's permission, and for specific purposes.

Anyone can request to use some or all of the SEOSAW data (see [here](#)). However, we put most of our energy into supporting SEOSAW network members and researchers in the region to make full use of the opportunities the SEOSAW offers. Typically this allows us to scale up our research from site-specific analyses to regional analyses that use data from

across all of the woodlands. Or it allows us to use multiple data sets that are hard for one person or group to be expert in (e.g. soils, grass and tree data).

Request the SEOSAW data!



**We want the SEOSAW database to be as open and used as possible! If you have science questions, we have data and people willing to help you draft a data request!**

To access the SEOSAW data, we require you to draft a data request which is reviewed by the SEOSAW steering committee first and then the data owners. This process takes about a month. The SEOSAW office is here to make this process as easy as possible for you, and will assist you in formulating the perfect data request.

If you are interested, please answer the questions in this [document](#) and get in touch via the [contact form](#) if you would like to use the SEOSAW dataset. A sample of the dataset is freely available [here](#) to help you in formulating your data request.