



SEOSAW Quarterly Newsletter: August 2022

Requests for PhD students

Do you know of any PhD candidates in your institutions who would be interested in using SEOSAW data for their research? If so, please contact us and we can explore potential research questions using the SEOSAW database that will fit with their research interests.

Upcoming Events

Human dimensions Workshop –

27-28 September, ~3.5 hrs per day at 07:00 EDT; 12:00 WAT/BST; 13:00 CAT/CEST; 14:00 EAT.

Thank you to all who participated in our expression of interest survey for this workshop.

The next SEOSAW **Science Meeting** is scheduled for 13:00-16:00 GMT on November 18. The theme has yet to be decided, but an agenda and further details will be sent around as soon as possible.

- <https://ed-ac-uk.zoom.us/j/87579301326>
- Meeting ID: 875 7930 1326
- Passcode: SEOSAW22

New Steering Committee Members

SEOSAW is happy to welcome to the following members to the Steering Committee.

- **Vera De Cauwer**-- Namibia University of Science and Technology (NUST), Namibia
- **Clemence Zimudzi**-- University of Zimbabwe, Zimbabwe
- **Carla Staver**-- Yale University, United States
- **Charles Blessings Jumbe**-- Centre for Independent Evaluations, Malawi
- **Muri Gonçalves Soares**-- Fundo Nacional de Desenvolvimento Sustentável (FNDS - National Fund for Sustainable Development), Mozambique
- **Justice Muvengwi**-- University of the Witwatersrand, South Africa

Student Liaisons

After much discussion, the Steering Committee decided that instead of choosing students/recent graduates to join the committee, they would create the role of student liaison with responsibilities different than SC members. The tasks and terms of the student liaison are still being determined, but will involve increasing engagement of students, organise student meetings, and attend the Steering Committee meetings as a representative for students. The student liaisons are still being determined, but those appointed will be highlighted on the SEOSAW website soon.

New Working Paper

A new working paper by Tatenda Gotore, Sally Archibald and Casey Ryan is now available on the SEOSAW website under *Publications*. The paper is entitled, "[Predicting diameter at breast height from 0.3m diameter measurements in miombo woodlands](#)".

Translations and Herbaceous biomass protocol now available!

After months of work, the Herbaceous Biomass Protocol has been finalized and is ready for use across the network! Penny Mograbi and many others worked extremely hard to make the protocol as intuitive and comprehensive as possible. The protocol includes links to instructional videos to aid in learning the methods and a fieldsheet to record data.

The field manual (plus the small stems and coarse woody debris) is now available in French, Portuguese, and Swahili! Please thank our amazing translators (Elisha Njoghomi, Paul Kazaba, and Maria da Graça Fernandes da Costa Campos de Oliveira). Translations of associated fieldsheets are also available.

All of these documents can be found on the [Manuals page](#) of the website.

Website Updates

The [SEOSAW website](#) has undergone some recent changes to update and clarify our work. These changes include:

- A new [News page](#) with recent highlights and links to past newsletters.
- The [Manuals page](#) has been reorganized to highlight all available materials and how they work in concert. Updates include new protocols, datasheets, and translations.
- The new Steering Committee members have been added the [People page](#). The page will be updated with the student liaisons when they are appointed.
- The [Data page](#) was revised to clarify the data request process. A sample dataset is now available to help you as you plan and write a data request.

Zimbabwe Fieldwork and Emissions Factor Workshop

June was a busy month for the Zimbabwe Forestry Commission! They returned to plots in Kazuma and Gwaai Forest Reserves in Western Zimbabwe to collect soil samples and retag trees. They plan to revisit other permanent sample plots throughout the country soon.

The data collected at these plots is contributing to a national initiative to develop a country-specific emission factor for deforestation. A workshop organized by the Climate Change Management department of the Government of Zimbabwe brought together experts from around the country to discuss how to calculate an emission factor using forest inventory data. The analysis portion was led by Sam Bowers and Lorena Benitez. An associated field workshop was led by Anderson Muchawona and others from ZFC and resulted in a new permanent sample plot being established in Mutoko district.



1 - Soil collection in Gwaai Forest Reserve.



2 - Fieldwork in Mutoko District.



3 - Emissions factor workshop participants.



4 - Painting and tagging trees in Gwaai Forest Reserve.



5 - Prepring for fieldwork in Gwaai Forest Reserve.



6 - Soil collection in Gwaai Forest Reserve.

Science Meeting Recap

We had another great Science Meeting on June 10! Thank you to all who presented and attended. We had great presentations from Zimbabwe Forestry Commission, Tanzania Forestry Research Institute, University of Lubumbashi, and Kenya Forestry Research Institute

who updated us on their fieldwork. Additionally, we had a series of flash talks from students. The meeting commenced with the co-chairs giving an overview of SEOSAW's scientific goals and ended with a review of all the SEOSAW protocols. If you missed the meeting, **the recording is [here](#)**.

PhD Opportunities

Five PhD positions are available with the CANOPi project. Candidates wishing to apply must send their application before September 1 at 16:00 CET. For each work package, 3 to 4 shortlisted candidates will be invited for an interview session on September 15. The laureates will join their labs on October 1, 2022:

https://www.canopi.uliege.be/cms/c_9001498/en/canopi-news-offers

Topics: Distribution and determinants, Carbon and biodiversity, Seasonality in functioning, Drought mitigation strategies, Upscaling/Remote-Sensing

SEOSAW Questionnaire

The Future Ecosystems For Africa (FEFA) is an impact programme funded by the Oppenheimer Generations Research and Conservation (OGRC) and implemented by the University of the Witwatersrand's Global Change Institute, School of Animal, Plant and Environmental Sciences, and Exeter University. The programme seeks to promote the generation and use of good quality data by African researchers to answer globally important questions. You are hereby invited to take part in this baseline survey to evaluate the current participation and use by African researchers of the Socio-Ecological Observatory for the Study of African Woodlands (SEOSAW) platform. It should take you about five minutes to respond to the survey questions. All responses will be treated as confidential and used only for the intended purpose. Use the link below to access the survey:

https://docs.google.com/forms/d/e/1FAIpQLSev9f1GoSwGxMtr71RC-jkYU4uJv_VXlc-1J4ytAp22LTHCOQ/viewform?usp=sf_link

Data Requests

Hermane Diesse Mwamba (diessehermane@gmail.com), PhD student at Namibia University of Science and Technology, is requesting stem data from plots in Namibia, Zambia and DRC, as well as shrub and herbaceous data if available for plots in these countries. Please contact Hermane if you have any questions or concerns.

Title: Estimating Miombo structure and Above Ground Biomass based on field data and remotely sensed data

Supervisors of research: Dr Nichola Knox, Dr Vera De Cauwer, and Dr John L. Godlee

Source of funding: FRAME scholarship

Project description: The main goal of this project is to analyse the influence of rainfall and fire disturbance gradients on the vertical structure of Miombo woodland. This project will use a combination of in-situ plot data and remotely sensed data, including GEDI LiDAR to:

1. Describe the vertical structure and to estimate the total, understory and overstory Above Ground Biomass (AGB) of Miombo woodland and to understand how these characteristics differ along rainfall and fire distribution gradients. I will investigate how tree size distribution, understory/overstory AGB, understory structure and canopy structure vary along rainfall and fire disturbance gradients.
2. Evaluate the potential of GEDI LiDAR to estimate the vertical structure of Miombo woodland. I will investigate whether plot-level estimates of the vertical structure can be upscaled to generate continuous regional maps.

Airborne and Terrestrial LiDAR will be used to measure the vertical structure and to simulate GEDI LiDAR. To assess the relationship between understory and overstory, simple linear, logarithmic, exponential and quadratic regression analysis using different forest parameters will be built.

Data has been shared with Chris Lusk (clusk@waikato.ac.nz), Associate Professor at University of Waikato, New Zealand, who requested woody vegetation (single census) and soil data from all plots that already have soil data available.

Title: Mycorrhizas, alternative stable states, and landscape partitioning in south-temperate forests

Supervisors of research: Chris Lusk and Ian Dickie

Source(s) of funding: Royal Society of New Zealand (Marsden grant 20-UOW-041)