

## THE CENTER OF EXCELLENCE IN BIODIVERSITY AND NATURAL RESOURCE MANAGEMENT (COEB), UNIVERSITY OF RWANDA

This quarter was busy for CoEB! I traveled to Belgium with colleague Prof Elias Bizuru to visit biodiversity collections and explore data sharing with Meise Botanic Garden, Africa Museum in Tervuren, Royal Belgian Inst of Natural Sciences, and Senckenberg Biodiversity Inst in Frankfurt, Germany. We aspire to one day have the resources to host collections managed and displayed in the ways we saw while on this visit. Partnerships are key to achieving this. We welcomed PhD student and research affiliate from Lancaster University, UK Matt Hanley studying Collective resource management for peace: How do transboundary environmental conservation practices expose synergies for peace and pressures towards further integration in a regional area?  
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Photo: University of Rwanda students training in biodiversity specimen collection and handling

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continued... In May we hosted visiting researchers Dr. Joern Fischer and Marina Frietsch from Social-Ecological Systems Inst at Leuphana Universitaet Lueneburg, Germany to discuss research collaboration on ecosystem restoration, a critical issue in Rwanda where much restoration is being done and assessments of ecosystem functioning, the role of biodiversity and native species, and services being delivered to support people's livelihoods are needed. We had visiting researchers from UK, USA and Norway who launched a project on effects of lightning on tropical forest dynamics. And we hosted Hilary McBean of Planet Birdsong; I went with her and Claver Ntoyinkama in Nyungwe NP recording bird sounds, and to see many endemic birds! And finally we hosted visiting researchers from Univ of California (UCLA and UCSC), partners on a project funded by National Geographic Society to apply eDNA to reconstruct mammal assemblages in Akagera National Park and build research capacity in eDNA techniques. It was a pleasure hosting Drs. Brenda Larison, Rachell Meyer, and Chloé Orland for the start of a long term collaboration. Enjoy this issue!

*Beth Kaplin*, Director of CoEB

## RESEARCH & MONITORING



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International  
collaborations



3

Reports and  
publications produced



4

Proposal  
submitted



8

Active  
projects



## Using Environmental DNA to Guide Re-wilding of Akagera National Park: A Professional Development Workshop



Left: collecting lake core samples; center: collecting surface samples; right: classroom training

The Center of Excellence in Biodiversity and Natural Resources Management (CoEB), University of Rwanda (UR) in partnership with researchers from the Congo Basin Institute at the University of California, Los Angeles, and CaleDNA at the University of California, Santa Cruz hosted a workshop that took place on University of Rwanda's Nyarugenge campus, College of Science and Technology lab and classroom facilities, and in Akagera National Park from June 16-25, 2022. The workshop was funded by the National Geographic Society.

An essential key to conserving biodiversity is understanding the current and historic composition of biotic communities. Environmental DNA (eDNA) is a cutting-edge tool for doing just that. It takes advantage of the fact that animals and plants shed their DNA, which can reside in sediments for 100's – 1000's of years. eDNA allows us to capture and sequence this DNA to build a picture of both past and current environments.

Participants were from the University of Rwanda, Nangui Abrogoua University, Cote Ivoire, University of Parakou, Benin, and nodes and partners of the CoEB (Dian Fossey Gorilla Fund, Albertine Rift Conservation Society, Akagera NP, Gorilla Doctors). There were 15 participants in total, and 6 organizers and trainers from UR, UCLA, UC Santa Cruz and Akagera National Park. Participants were selected through an application process completed in April 2022, which allowed them to participate in the workshop free of charge.



*Photo: Participants posing for a group photo in Akagera National Park, Rwanda.*

CoEB partners from the University of California are Dr. Brenda Larison (UCLA), Dr. Rachel Meyer (UCSC), and Dr. Chloé Orland (UCSC). They led the training and field sampling, and we are eager to continue this long-term collaboration for research capacity building and a better understanding of the biodiversity past and present in Rwanda and the region. The aim of the CoEB and its partners in this project is to support a cadre of researchers trained in eDNA approaches to lead research in the region.

### **Workshop Schedule – 16-25 June 2022**

**16 June, Day 1** Introduction to the science of eDNA. College of Science & Technology (CST), Conference room on top floor of Einstein block (ICTP), Nyarugenge campus, University of Rwanda.

**17-18 June, Days 2-3** Participants will work with existing data from our previous projects to learn how to analyze eDNA sequence data and assess species presence and abundance over time. CST, Karisimbi block (former KIST 4), Nyarugenge campus, University of Rwanda

**19-22 June, Days 4-7** Hands on experience with eDNA sampling in Akagera National Park. We will collect sediment cores and sample surface sediments. In and around three of Akagera's lakes. We will also collect metadata on natural history observations.

**23-25 June, Days 8-10** Hands on experience in the lab, extracting eDNA and producing libraries for sequencing. CST, Karisimbi block (former KIST 4), Nyarugenge campus, University of Rwanda

# Growing Biodiversity Science & building specimen collections



VolkswagenStiftung

UNIVERSITY of  
RWANDASENCKENBERG  
world of biodiversity

## VOLKSWAGEN FOUNDATION PROJECT

PROJECT NAME: MIND THE  
DARWINIAN SHORTFALLS – A  
GRADUATE SUMMER SCHOOL  
ON BIODIVERSITY AND  
COLLECTION MANAGEMENT  
IN EAST AFRICA



**Duration:** March 2021 – December 2023

**Implementation team:** Senckenberg Research Institute,  
Germany and CoEB, Rwanda

**Funding body:** Volkswagen Foundation, from Germany

**Total project funding:** 212,000 EUR

**Focus:** A 2-week summer school for collection of  
biodiversity taxa (animals and plants) including field  
surveys and wildlife collections

**Support to the CoEB:** Improvement and management of  
zoological collections and the Herbarium at the CoEB  
facility in Huye, Rwanda: equipment, specimen  
collections, covering some technical costs

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This 3-year project began last year from 22 August to 3 September 2021, a two-week field school session that focused on natural history collections and biodiversity sampling and taxonomy held in Nyungwe National Park (NNP). This field school is funded by Volkswagenstiftung Germany (Volkswagen Foundation) through a grant to the Senckenberg Nature Research Society (German: Senckenberg Gesellschaft für Naturforschung) in partnership with the Center of Excellence in Biodiversity and Natural Resource Management (CoEB).

CoEB partnered with Senckenberg, Germany to receive this grant, to assist with creating field school programs and trainings geared towards building capacity for taxonomy, biodiversity sampling, and plant and zoological collections. Program instructors from Germany and the Central and East African community will continue to work to develop modules that can be adopted as qualification courses at Senckenberg and CoEB in the fields of biodiversity and database management.

This year, the second session of the field school is scheduled to take place from 7 -20 August. Field course participants include staff from Senckenberg and CoEB, as well as from CoEB nodes and partners like the Dian Fossey Gorilla Fund International (DFGFI), Rwanda Cultural Heritage Academy (RCHA), and Centre de Recherche en Science Naturelles, DRC (CRSN, Lwiro). It will bring together 50 people including experts and postgraduate students from the University of Rwanda, as well as NNP freelance guides. The session will be taught by taxonomic specialists from 11 countries: South Africa, Germany, Rwanda, DRC, Uganda, Kenya, Tanzania, Belgium, USA, Sweden, Czech Republic, and select international research institutions.

The course introduces core aspects of taxonomy and systematics, as well as the management of biological collections and databases (e.g., museums, university collections and herbaria) for use in biodiversity research and education. Participants receive field and lab training, and specimens obtained and preserved during the courses will be used to build up CoEB's reference collections.

Our aim in the CoEB is to build regional taxon expertise and capacity to manage and maintain biodiversity collections for research, teaching and educational or tourism purposes. The last field school under this funding will take place in 2023. From the field school in 2021, participants found a total of 494 fresh water invertebrate, 103 amphibians, 201 lichen, 223 butterfly, 40 small mammals, and 453 beetle specimens were recorded, in addition to the 208 plant samples that were collected and brought to the National Herbarium of Rwanda.



## Rwanda Biodiversity Information System for sustainable development and climate change adaptation in Rwanda

The Rwanda Biodiversity Information System, an open access portal created using open-source software, continues to mobilize more data to the public. New data records are being digitized from published books, reports, and journal articles as well as researchers who understand the importance of making biodiversity data available. Currently, one hundred thousand occurrence records have been made available for use in the system. Most recently, the team mobilized data for two new modules that include plants and reptiles. The team leader for biodiversity data management also created a module for mammals of Rwanda that will be added to the collection of seven modules already completed. The occurrence data already available include amphibians, fish, birds, odonates (dragonflies), macro-invertebrates, plants, and reptiles. Additionally, the team will integrate abiotic data to the biodiversity data including physico-chemical parameters associated with aquatic systems where biodiversity records were collected.

Data mobilization requires a combined effort between data providers and the system management. There is good news that more data sets have been repatriated from Belgian partners after a visit of the Project PI and co-PI Profs Elias Bizuru and Beth Kaplin to Belgium. These data will be added to the current records. More data are housed in different institutions and the need for these data has motivated the team to visit each institution to demonstrate how the RBIS works to monitor ecosystem changes over time. We acknowledge the DFGI and the Akagera National Park to have welcomed the Team to share insights about the development of the system. The RBIS team also has taken an opportunity to present the functionality of the system to 220 University of Rwanda students, to partners in Belgium (RBINS, Meise Botanic Garden and Africa Museum), DFGI staff, staff at the Senckenberg Museum of Zoological collection in Dresden (Germany), Yale University students and staff, and Akagera National Park staff. These efforts are to increase awareness and use of this system and users worldwide.



Photo: PI and co-PI of RBIS project, Prof Elias Bizuru and Prof Beth Kaplin during their visit in Belgium (left); Lucky Barahebuza, RBIS data manager demonstrating RBIS functionality to Univ of Rwanda student visit (right).

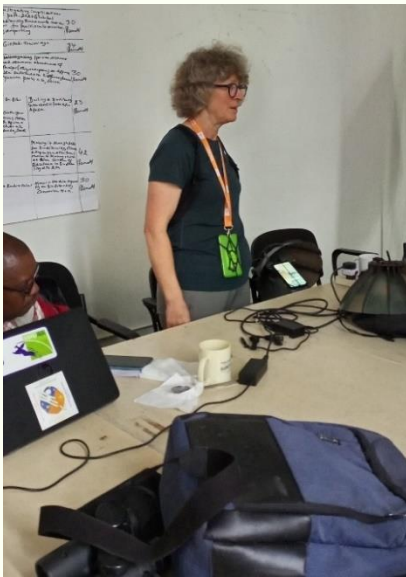


## Planet Birdsong and CoEB collaboration took another step ahead!

Planet Birdsong ([www.planetbirdsong.org](http://www.planetbirdsong.org)) is a UK-based charitable initiative devoted to engaging the greatest possible number of citizens in nature. The initiative is multi-disciplinary, involving scientists, conservationists, musicians, educators, citizens and information technology professionals.

October 2021 saw the start of practical training in bird acoustic recordings in Rwanda using a phone and adapted parabolic reflector. This was the first practical expression of the new collaboration between CoEB and Planet Birdsong that uses bird sound and nature-based education with rigorous science through the aid of citizen scientists, researchers, and academics.

Following the project's introduction through the CoEB Seminar Series and technical online trainings in June 2022, Hilary Macbean, Planet Birdsong Trustee and Rwanda project coordinator, came to Rwanda from her home in UK and offered a practical face-to-face training from 10 June, 2022 to reinforce skills in the online training. In the field, the training included bird identification, recording, and labelling data. This was followed by class-based practice in sound processing on a PC using a Digital Audio Workstation (DAW) such as Ocenaudio, to create spectrograms and to prepare the audio files for verification and submission. Data will be submitted to Cornell University, Macaulay Library global commons data set, through eBird, and to the Rwanda Biological Information System hosted by CoEB. Now  $\geq 20$  people are using the techniques of this initiative, with Hilary MacBean actively mentoring young citizen scientists from a number of institutions in Rwanda including IPRC Kitabi and Kivu Hills Academies.



Right: Hilary MacBean in Nyungwe National Park testing the home-made recording system with expert birder Claver Ntayinkama; Left: Hilary Macbean explaining bird recording techniques in CoEB conference room.

Watch all Planet Birdsong recorded trainings [here](#). The CoEB is grateful for Hilary's donation of two copies of the most recent edition of *Birds of East Africa* field guide and one parabola to be used in recording. If you have any questions please reach out to Rwanda project coordinator [hilary.macbean50@hotmail.co.uk](mailto:hilary.macbean50@hotmail.co.uk)



# EDUCATION & AWARENESS RAISING



7

Graduate students  
supported



6

Trainings  
conducted



12

Seminars hosted



23

Academic  
interns



3

Professional  
interns



3

Community  
Outreach activities

## CoEB Seminar Series highlights

Continuing to engage students, researchers, practitioners and professionals from around the world, the CoEB seminar series hosted a diversity of topics from April – June this year. The seminars represent the multidisciplinary nature of biodiversity science and conservation, and include CoEB research associates, fellows, and partners from many different institutions at UR and across the globe. Among the 12 seminars provided in these three months, two of them were able to be presented in person. The event still hit its momentum of 20-50 people attending each time. CoEB seminar presenters included Prof. Umaru Galba Wali on “Water users and uses in Rwanda”; Dr Robin Morrison, Post-doctoral researcher at Dian Fossey Gorilla Fund, who presented on “The transmission of respiratory infections in mountain gorillas”; Dr. Shannon McFarlin, Associate Professor in Dept of Anthropology at Center for the Advanced Study of Human Paleobiology, George Washington University, USA who presented on the “The Mountain Gorilla Skeletal Project in Rwanda: Recovering new insights into mountain gorilla biology and life history”; and Dr. Laine Munir, Assistant Professor of Global Challenges at African Leadership University and Senior Research Fellow CoEB who presented on “Women, Conflict, and Modern Mining in Rwanda”.

Other seminars included one by Dr. Amanda G. Tokash-Peters, Assistant Professor of Biology in the School of Natural, Health, Social, and Behavioral Sciences at Centenary University in New Jersey, USA and Research Fellow at the CoEB who presented on “Composition of collected mosquitoes and their microbiomes in Rwanda”. Prof. Phillipe Munyandamutsa, Lecturer of Fisheries Management, Fish Taxonomy and Fish Ecology at the University of Rwanda, College of Agriculture, Animal Sciences and Veterinary Medicine, presented on “Species specificity and sexual dimorphism in tooth shape among the three sympatric haplochromine species in Lake Kivu cichlids”. Prof. Joern Fischer, Professor at the Faculty of Sustainability at Leuphana University Lueneburg, Germany and Marina Frietsch, Early Career Researcher at Leuphana University Lueneburg, Germany" together presented on “A social-ecological systems approach to inform



Evan Gora, Research Fellow at the Cary Institute of Ecosystem Studies, USA, Martin Sullivan, Senior Lecturer at Manchester Metropolitan University, UK and Dr Aida Cuni-Sanchez, Assistant Professor at the Norwegian University of Life Sciences, together presented on "Unraveling the ecological effects of lightning in tropical forest, Spatial variation in carbon stocks in tropical forests and Local perceptions of tropical forest ecosystem services, insights from Africa".

Evan W. Craig, a PhD candidate in Environmental Sciences at the University of Massachusetts Boston, USA AND Research Associate with the Field Museum of Natural History, Chicago, USA presented on "High elevation-specialist mammal species weigh more than their relatives down the mountain in Eastern Africa".

Lastly, Perpetra Akite (PhD), Lecturer in the Department of Zoology, Entomology & Fisheries Sciences, Makerere University, Uganda, offered an interesting presentation on "It takes a village to raise a child: making a case for how to document our vast biodiversity"

Video recordings of the CoEB Seminar Series can be accessed at our Youtube channel here: <https://www.youtube.com/channel/UCdr8ykoxB00DI7ywxpvBuWA>



Photo: attendees of the second in person seminar series in the CoEB conference room at Huye Campus.



## Land snail study at CoEB by Umuntunundi Prosper

CoEB Honorary Research Fellow Prosper Umuntunundi is a young conservation biologist interested in Land snail Ecology, Biogeography and Systematics of Rwanda. Umuntunundi trains professional interneers and academic staff of CoEB in land snail sampling and identification. Umuntunundi commits to the development of the CoEB Zoological Collection and together with a team of young student researchers, recently collected land snail specimens, including live animals and empty shells in Ruhande Arboretum, Rwanda. Umuntunundi has collected land snails in other parts of the country and provided the first lot of land snail voucher specimens to the CoEB's zoological collection. The first lot submitted accounts for 1230 specimens totaling 25 species. Currently, Umuntunundi is drafting manuscripts (compiling data for an annotated checklist of land snails and the first record of an introduced land snail species in Rwanda) to be published in peer-reviewed journals.



Photo: Prosper Umuntunundi with professional and academic interneers of CoEB, sampling land snails in Arboretum forest.



## National Herbarium of Rwanda

In the last three months, the National Herbarium of Rwanda (NHR) hosted academic interns and received some visitors (students and researchers) from across the world. During the internship program, students were shown a range of activities regarding the Herbarium management techniques, plant sampling, pressing and drying, mounting to produce the herbarium specimens, and preserving the physical collection.

On 4 May, NHR staff trained year two students from the University of Rwanda, College of Science and Technology on plant sampling and collections to enhance what they learned in both plant systematics and plant community modules.

From 25 to 26 May, NHR hosted 59 year one students of Wildlife and Conservation Technologies, and from 30 to 31 May, it also hosted 27 students of Forest and Resources Management both from IPRC Kitabi. The students received support in terms of skill building, tools, and equipment for tree material collection, identification, and storage in the NHR.

On 8 June, the NHR also hosted level 2 students from College of Agriculture and Veterinary Medicine who are doing their module "Biodiversity conservation" where they gained a series of trainings in plant material identification and preservation and other herbarium techniques.



Photo: Pascal Sibomana, NHR staff demonstrating the activities of NHR to students (left); Sandrine Uwase and students showcasing plant collection techniques on field (Right).

The NHR strives to support plant science and conservation and provide resources that can empower individuals and institutions to make science-driven decisions for environmental sustainability. The NHR provides valuable data regarding the botanical biodiversity of Rwanda and the Albertine Rift region for present and future generations.



## CoEB Community Rising!

On 1 June 2022, the office of the Principal of the College of Science and Technology (CST) appointed new Honorary Research Fellows and Research Associates to the CoEB. A total of 34 new Research Fellows with various expertise in biodiversity conservation and natural resource management were appointed, both social and natural scientists, from early career to more senior individuals from within and outside Rwanda. They are added to the 17 existing Research Fellows previously appointed, making a total of 51 Research Fellows of CoEB so far.

We have 13 new Research Associates appointed adding to the 22 existing Research Associates making a total of 35 so far. Research Associates are academic staff from University of Rwanda, and this new round of appointees includes lecturers in the CST with pending appointments from lecturers in the College of Agriculture and Veterinary Medicine (CAVM), College of Medicine and Health Sciences (CMHS), College of Arts and Social Sciences (CASS) and College of Education (CE).

The main tasks of an Honorary Research Fellow or Research Associate of the Center are to participate in writing grant and project proposals with teams from the CoEB, CoEB nodes, and partners depending on expertise and fit with any particular project or proposal; co-advise or mentor students in BSc, MSc or Ph.D. with the CoEB Director or a CoEB Research Associate (academic staff), participate in joint programs with CoEB and its nodes and partners; deliver guest lectures, workshops, trainings or assist in outreach activities; participate in the development of policy briefs or other publications; and last but not least, acknowledge CoEB and UR in all publications, presentations, grant proposals, research projects and other activities done in collaboration with CoEB as a Fellow.

CoEB works with its Research Associates and Fellows to liaise with government organizations like the Ministry of Environment, Rwanda Environment Management Authority, Rwanda Water Resource Board, Rwanda Forestry Authority, and others as well as NGOs and nodes for international and global UN events such as World Environment Day, etc. We thus collaborate with our partners and nodes to create events and activities in advance to celebrate the events. This can include a diversity of activities ranging from public lectures, videos, school events, etc.

The CoEB also needs its Research Fellows and Associates to help in tracking activities related to international agreements such as CBD, Nagoya protocol, NBSAP, Post 2020 Biodiversity Framework and ensure CoEB is involved and contributes where needed; propose projects for CoEB to pursue related to these international agreements; attend workshops on behalf of CoEB; prepare research proposals, manuscripts and policy briefs; propose research and evaluation of interventions related to multilateral environmental agreements and conservation and development targets.



## The Ecosystem Services Partnership 3rd African Regional Conference

Taking place from the 8-10 of June this year, the Ecosystem Services Partnership (ESP) hosted the third African regional conference in partnership with the Ministry of Environment of Rwanda and IUCN. The conference theme was 'Ecosystem services for the future: Delivering value for Nature, Livelihoods and Economic Investment'.

Ecosystem Services are crucial worldwide as we experience the negative impact of climate change and widespread land degradation, a situation that is projected to worsen in the future. Proper management and restoration of ecosystems and essential ecosystem services is paramount to deal with these dramatic environmental changes affecting the lives and livelihoods of millions of people.

This conference was an opportunity to enhance collaboration between scientists, professionals and policy makers from Africa and across the world to share experiences and best practices around the importance of ecosystem services for the transition to sustainable economies and natural capital accounting.

The conference was also an opportunity for Rwanda and other African countries to showcase the great work already accomplished and the ambitious programmes that have been created to enhance nature's capacity to deliver ecosystem services and enhance economic development.

The Director of CoEB, Professor Beth Kaplin was a keynote speaker in this conference. She talked about **Ecosystem-based Adaptation experience in Rwanda (EbA)**.



Photo: Prof. Beth Kaplin, Director of CoEB

In her talk, she said that EbA has tremendous potential to contribute to climate adaptation and human wellbeing in Rwanda. "But we need to pay more attention to the details of implementation (its more than just planting trees) - true participation, traditional knowledge, co-production of knowledge and the learning process, monitoring achievement of ecosystem functioning, common understanding of goals for restoration" Beth Kaplin said.

Beth Kaplin continuously highlighted that EbA has connections to nature-based solutions and social-ecological restoration approaches and these can be explored more deeply.

"We need to pay attention to how we can develop and promote stewardship of the EbA intervention sites by the local communities" Beth said.

She is very interested in evaluating and monitoring effectiveness of ecosystem-based adaptation and landscape restoration initiatives.



## Visit With Students from Yale University, USA

Led by Dr. Amy Vedder who has a long history of research and conservation in Rwanda, the first group of postgraduate students from Yale Univ arrived on Monday 23 May to visit CoEB. The visitors were welcomed by CoEB staff, Research Associates, and Fellows. The group had a rich discussion around five topics namely water resource management and bio-indicators, forestry, climate-smart agriculture, the Rwanda Biodiversity Information System, and conservation communications and community outreach. There has also been raised interest for future collaboration with Yale researchers by involving final year students of the School of Forestry and Biodiversity Conservation in local ongoing researches.



*Photo: Venant Nzibaza, CoEB Research Fellow and Project Manager welcoming the visitors and showing them the library (left) Sandrine Uwase, National Herbarium of Rwanda (NHR) Coordinator welcoming the second group of visitors at NHR (Right)*

On Thursday 16 June, the second Yale group come to Huye again. At this time, the group was led by Drs Amy Vedder and Bill Weber. Dr. Vedder was so impressed with the discussion in the first visit and she proposed to stay a bit longer and visit the National Herbarium and Zoological Collection as well as sit with the staff, and hear about projects and the group discussions. The group also had a brief visit to the Arboretum forest.

"Thank you so much for organizing the session with the Center of Excellence in Biodiversity & Natural Resource Management at the University of Rwanda. We had such a wonderful time speaking to your colleagues and students there who hosted us at our meeting! There was a palpable excitement about research and conservation as we had discussions in small groups and all together, and that energy was one of the highlights of our trip"! stated Dr. Vedder.

Mapendo Mindje, Team Leader of the Rwanda Biodiversity Information System (RBIS) and his team of data managers presented the functionality of RBIS. "It was nice sharing experiences and contacts with the visitors from Yale. For the RBIS we have two plans to follow up with, the development of biodiversity data products and connection of biodiversity data while Amy was working in Rwanda" said Mapendo Mindje, leader of the Biodiversity Data Team for the RBIS project.

## CoEB Research Associate Mapendo Mindje speaks about his training experience in Germany



*Photo: Mapendo Mindje in the lab.*

From 29 May to 29 June, CoEB Research Associate and RBIS Biodiversity Data Team Leader Mapendo Mindje traveled to Germany as a visiting student researcher to the Senckenberg Natural History Collections, Museum of Zoology in Dresden for training in DNA sequencing, zoological collections management, and statistics.

The training aimed to support his current Ph.D. studies in Rwanda, where he is studying the diversity of amphibians in the western province of Rwanda with a special focus on Human dominated wetlands.

"Amphibians in Rwanda include a diverse group of frogs and toads plus only one known species of Gymnophiones (Caecilians). I am happy to keep learning a lot in this field and have already been working on their diversity and DNA sequences", Mapendo Mindje said. He is a PhD student at the University of Koblenz-Landau, Germany.

Mapendo is passionate about building capacity for current and future generations of students and practitioners to study and transfer knowledge about this important group of animals. He loves to see students from the University of Rwanda expressing their interest in frog sampling, identification, biodiversity.



*Photo: Christella Umulisa, a BSc student at UR practicing amphibian specimen preservation in CoEB zoological collection under Mapendo's supervision.*



## Center of Excellence in Biodiversity and Natural Resource Management

The Government of Rwanda is committed to Centers of Excellence that will ensure research is available to meet national data needs for evidence-based decision making. University of Rwanda hosts several Centers which drive academic research, training and innovation in support of policy and management. The CoEB was formally established at University of Rwanda in 2016 and works across Colleges, Schools and departments. It engages with environmental scientists, biologists, social scientists, policy scientists, gender experts, ecological economists, anthropologists, chemists, pharmacists, molecular biologists, foresters, agronomists, climate scientists, and many others. The Center functions as a consortium of institutions, known as nodes, and works with youth and elders, with government and private sector, communities, practitioners, NGOs and international partners to meet its mission.

We are developing opportunities for youth and early career researchers to gain experience, we provide data for decision-makers, we are creating an academic & research culture, and making it enjoyable. We are creating a dynamic and welcoming atmosphere for academics and practitioners, we want science and research to be exciting and rewarding, and we are driven to contribute to sustainable development goals and achievement of climate resiliency and biodiversity conservation for Rwanda and the region.

### Contact us!

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