



REPORT

Taxonomic training & access to collections in Belgium

NOTICE

The present questionnaire must arrive with the Belgian National Focal Point to the Global Taxonomy Initiative within one month of the official closure of the capacity building visits. Electronic submission on the general e-mail address of the Belgian GTI NFP (cbd-gti@naturalsciences.be) is strongly encouraged. If electronic submission should however be impossible, paper copies may be sent by fax or ordinary mail. The Belgian GTI NFP will acknowledge receipt of all project reports.

If grantees have **relevant pictures** to illustrate their capacity building visit, these may be annexed to the report. The Belgian National Focal Point might use some of these pictures in one of its reporting activities, but only after the copyright holder has given his permission.

Contact and further information

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PART I – CANDIDATE INFORMATION

Family name:	Naturinda
First name(s):	Zerubabeeli
Nationality:	Ugandan
Date of arrival and departure in / from Belgium	4/09/2016 to 1/10/2016
Number of training days:	28
Type of visit	<input type="checkbox"/> Mainly training in taxonomy and collection management <input type="checkbox"/> Mainly access to collections <input checked="" type="checkbox"/> Other, <i>specify</i> (Processing ants collections from research work in Uganda).
Location of training:	<input checked="" type="checkbox"/> Royal Belgian Institute of Natural Sciences, Brussels <input type="checkbox"/> Royal Museum for Central Africa, Tervuren <input type="checkbox"/> Botanic Garden of Meise <input type="checkbox"/> Other, <i>specify</i>

PART II - GENERAL INFORMATION

Describe concisely how you have learned about the Belgian GTI Project	Having been at RBINS in 2015, i received an email on the advertisement on the call for proposals from Dr. Lucie Marie. On checking at the website, i found myself eligible to be a beneficiary once more. On application i was amongst the lucky candidates invited.
Describe concisely how you have learned about this specific call for proposals	I received an email on the advertisement on the call for proposals from Dr. Lucie Marie, I then checked on GTI link and then i submitted in my proposal for consideration. Fortunately enough i was considered. Glory to be God that am one of the lucky beneficiaries.
Describe concisely why you needed capacity building in taxonomy and collection management	Having not finished all the identification process in the past campaign, especially some ants species of genus tetramorium, Pheidole, Dorylus, there was need for me to identify them further to a species level since i want to look at the species evenness, richness, and abundance in the different land use systems. and linking the different ants communities for biodiversity conservation.

<p>Describe concisely what support (e.g. training, access to collections,...) you have received and how this training can be related to taxonomy and /or collection management</p>	<p>I can now identify ants up to species level. i was also exposed to the management of ants' collections and other organisms like beetles and butterflies. This is all geared towards finding the different taxonomic hierarchies of ants' species in eastern Uganda. I got access to equipment and tools used in the study of ants (processing).</p>
<p>Describe concisely how your gained capacity will help you in your professional duties</p>	<p>Ants species identification will help me perform different analysis that will help me draw conclusions on the use of ants species as bio indicators for environmental changes that are fast like climate change, degradation, increased natural disasters like landslides. The conclusions drawn on this will help in coming up with right policy recommendations towards biodiversity conservation since am a conservationist. Emphasis will be put towards sustainable use of the environment for both the present and future generations to meet their needs</p>
<p>Describe concisely how your gained capacity will be implemented in your institution</p>	<p>I shall be able to demonstrate and teach other interested students in my University, Busitema on how to identify insects(especially ants) and to digitize and also to use e-resources like antweb for conducting research that is aimed at biodiversity conservation for sustainable development. I gained skills in DNA sequencing which is useful to easily tell the different ant species though am not sure of its application since its new use in Uganda. There are no established laboratories particularly for this.</p>
<p>Describe concisely what other support you eventually would need</p>	<p>I want to look at the ants' diversity and the economic value of biodiversity conservation in urban areas. If possible i would want to access the expertise of Dr. Wouter in future for me to become a specialist. I would also wish to train more in entomology. This is of great importance to me and my country at large. A vote of thanks to the GTI team for the support.</p>
<p>Describe concisely what infrastructural and human resources you and your institution eventually still need to become fully functional</p>	<p>There is a need of a fully functioning laboratory. My institute lacks a laboratory for entomology studies. There is also need of equipment like Microscopes, Insect collection equipment like light traps, Winkler bags, Sieves, Mounting kits among others. There is also need of constructing a mini-museum at the institute for keeping the different collections for various students' research studies There is also need of the institution to employ a technician who is knowledgeable in entomology.</p>

<p>Describe concisely how you think the Belgian GTI National Focal Point could further construct capacity for you and your institution</p>	<p>I would like the Belgian GTI National Focal Point to invite me over to Belgium again to get further skills in ants Identification.</p> <p>I would wish GTI to support me with research equipment and tools that would aid me to be a better researcher.</p> <p>The institution needs to establish a link, by patterning up in biodiversity research projects.</p> <p>There is need to build capacity of students through trainings and visiting other collection centres for knowledge acquisition and exposure.</p>
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PART III – TAXON SPECIFIC INFORMATION

<p>What is your taxon of interest</p>	<p>Phylum Arthropoda; Class Insecta; Order Hymenoptera; Family Formicidae; many genera(all)</p>
<p>Describe concisely how you intend to make your taxonomic data available to other colleagues</p>	<p>The identified and digitised ants will be uploaded on antweb plus on the RBINS website for public access and use. The published research papers will be made available online for use by other people. The results of the research shall be accessed by all stakeholders like the certification bodies of coffee in Eastern Uganda like Gumutindo Ltd and Kyagalanyi Ltd. The reports shall also be made available to the funding organisations like VLIROUS, Busitema University, Lueven University, GTI Belgian National Focal Point.</p>
<p>Describe how your taxonomic work helps improving the status of biodiversity in your country</p>	<p>There is need of public awareness, political and financial support in order to improve biodiversity conservation in Uganda. Currently very few is known about local biodiversity and its importance to the country. This study aims to indicate the role of agroforestry systems for the conservation of biodiversity in human modified land use systems outside the borders of the Mt. Elgon National Park in eastern Uganda. The PES (payment for ecosystem services) schemes such as carbon sequestration projects are important co-benefits that can increase the carbon credit's values and attractiveness of projects. Since land use changes around Mt. Elgon are happening on a large scale and often in an irreversible way this study is of high importance for the documentation and taxonomy of species that might get lost very soon.</p>
<p>Describe how your project could help reduce poverty in your country</p>	<p>Through promoting sustainable ways of coffee production in the Mt. Elgon region poverty can be reduced. The study of ant communities in small holder coffee plantations around Mt. Elgon will indicate the effects of different management systems on biodiversity. It will provide evidence that can convince policy makers and foreign donors to support the extension of sustainable management practices, certified coffee production or PES schemes in the region.</p>

Pictorials during the training at RBINS courtesy of GTI



a)



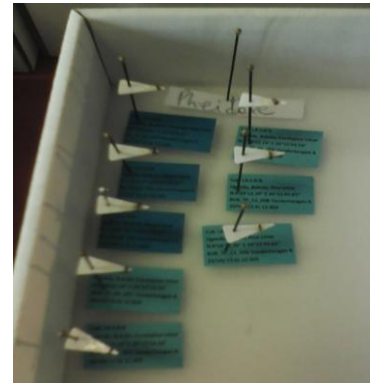
b)



c)



d)



e)



f)



g)



h)

*Plates **a)** remaining ants sorted, **b)** ants labeled, **c)** identification process ongoing, **d)** Dr. Wouter identifying ants, **e)** and **f)** ants grouped according to different sub-families and species, **g)** preserved ants and other organisms like spiders found in the collection samples, **h)** grouped and identified ants species.*

Pictorials during the DNA sequencing with the PCR- Machine in the molecular lab, RBINS



a)



b)



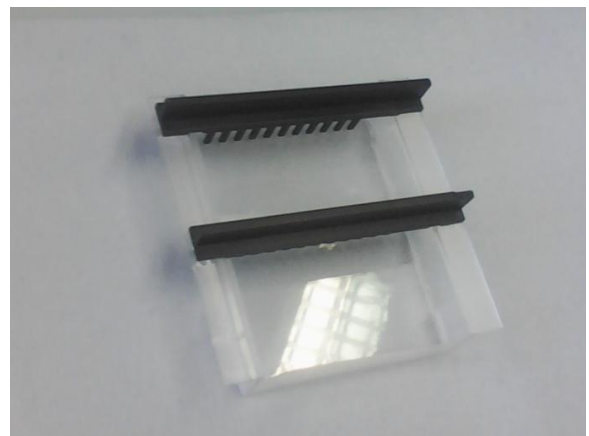
c)



d)



e)



f)

Plates a) and b) training with Anna in Molecular lab, c) shaker machine used in DNA extraction process, d) In the lab, e) PCR- machine, f) Agarose preparation