

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

Dr M-L Susini
Belgian Focal Point to the Global Taxonomy Initiative,
Royal Belgian Institute of Natural Sciences
Vautierstraat 29,
B-1000 Brussels, Belgium
Tel.: +32 2 627 45 90
Fax: +32 2 627 41 41
Email: cbd-gti@naturalsciences.be

PART I – CANDIDATE INFORMATION

| | |
|---|---|
| Family name: | Morffe Rodríguez |
| First name(s): | Jans |
| Nationality: | Cuban |
| Date of arrival and departure in / from Belgium | October 5 to October 27, 2013 |
| Number of training days: | 23 |
| 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> training and access to molecular techniques. Access to SEM techniques. |
| 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"/> National Botanic Garden of Belgium, Meise <input type="checkbox"/> Other, <i>specify</i> |

PART II - GENERAL INFORMATION

| | |
|---|---|
| Describe concisely how you have learned about the Belgian GTI Project | I learned about GTI by mean of a colleague that was granted with such project. |
| Describe concisely how you have learned about this specific call for proposals | By the website of the Belgian GTI. |
| If this was your first study visit financed via the Belgian GTI National Focal Point, describe concisely why you needed capacity building in taxonomy and collection management | |
| If this was not your first study visit financed via the Belgian GTI National Focal Point, describe concisely why you needed further support | In order to complement the information obtained by the revision of material from collections I asked for the access to SEM and molecular techniques. SEM will be useful in order to make more accurate descriptions. DNA studies will be the basis for establish the phylogeny of the group as well as for the proper identification of several species and to match the males with their conespecific females. |

| | |
|---|--|
| 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 | The support received was mainly the access to material from collections (in 2010 and 2012). Also, in 2012 I asked for access to SEM techniques. |
| Describe concisely how your gained capacity will help you in your professional duties | The capacity gained will help in my PhD. |
| Describe concisely how your gained capacity will be implemented in your institution | The data on SEM and DNA studies will contribute to the proper description and identification of several new and known Cuban taxa. Such correct identifications will help to the better organization of the helminthological collection of my institution. |
| Describe concisely what other support you eventually would need | In order to establish the phylogeny of the family the further researches on Hystrignathidae could be complemented with DNA. In this case, including more genes in addition to the rDNA 28S and 18S, such as the COI and COII. |
| Describe concisely what infrastructural and human resources you and your institution eventually still need to become fully functional | Mainly infrastructural resources: adequate cabinets for maintain the collections, slide boxes for the storage of mountings, slides and coverslips, mounting medium (glycerine) as well as microscopy equipment. |
| Describe concisely how you think the Belgian GTI National Focal Point could further construct capacity for you and your institution | The access and training on SEM and molecular techniques, as well as the access to such facilities could be useful for the current studies of Cuban zoo-parasitic nematodes. Also, by mean of the access to type material of Hystrignathidae and other groups of nematodes deposited in foreign collections. This is very necessary for the current taxonomical studies that we´re carrying out in our institution. |

PART III – TAXON SPECIFIC INFORMATION

| | |
|--|--|
| What is your taxon of interest | Family Hystrignathidae (Nematoda: Oxyurida) |
| Describe concisely the different methodologies for collecting your taxon. | Hystrignathids are parasites specific of the intestine of Passalidae (Coleoptera). Passalid beetles inhabit rotting logs that must be broken for collect them manually. Passalids are also attracted by light-traps, but with such traps only a few specimens are captured. The best is to maintain the hosts alive in jars with wood chips, as source of food and humidity until arrive to the lab. Beetles must be killed with ethyl-ether, chloroform or similar and immediately dissected in order to extract the intestines, that must be excised with needles in normal saline (0,9% NaCl or Ringer´s solution). This step ensures to obtain the nematodes alive, without damage of the cuticle or internal structures. Finally, parasites are killed in tap water (60-70°C) and fixed in 70% ethanol or TAF (triethanolamine-formaline). |
| Describe concisely how to best preserve collected specimens of your taxon for taxonomic purposes | For a long storage the best is the use of vials with 70% ethanol (long conservation in formaldehyde or similar fixing media affects the cuticle and hardens the specimens). For DNA studies is better to storage the specimens in vials with 96-98% ethanol. For the study of the internal structures the mounting on slides is required. Anhydrous glycerine is the recommended medium. For this is necessary to transfer gradually the specimens to such medium, via slow evaporation method (Seinhort´s method) and then make the mount on slides, sealing the preparations with wax rings or nail polish. As glycerine mounts, specimens must be stored in slides boxes (slides horizontally, in order to prevent the movement of the specimens embedded in the liquid medium). In all the cases the samples must be maintain in close cabinets, avoiding the sunlight. The room of the collection must be climatized. |
| Describe concisely how you intend to make your taxonomic data available to other colleagues | All data on new taxa and new records of species will be published in scientific journals. Also, such results would be presented in scientific events and symposia and used in some topics of the career of Biology, University of Havana. |
| Describe how your taxonomic work helps improving the status of biodiversity in your country | This work increases the knowledge on one of the more neglected taxa of Cuban fauna. New species and genera have been described or are under description and new localities and hosts have been recorded. Moreover, the DNA studies will be useful as a basis for the study of the phylogeny and biogeography of these taxa. |

| | |
|--|---|
| <p>Describe how your project could help reduce poverty in your country</p> | <p>A better knowledge of biodiversity is essential for an adequate conservation of the species and sustainable development. Both of these topics permit the establishment of a theoretical basis for the adequate development of human society, based on a harmonic relation with nature. This includes the sustenance of the population health as well as its better life quality.</p> |
|--|---|



Belgian National Focal Point to the
Global Taxonomy Initiative