1. Context

Access to useful biodiversity information is influenced by many factors, ranging from the proper collection of specimens and observations in the field to ensuring collected information is available online using appropriate standards and formats for various target users. The concept of “Biodiversity Information” includes monitoring, conservation and technological innovation adapted to small-scale and infrastructure-limited contexts, taxonomy, climate change, collection management, data mining, distribution modeling. Our goal is to promote the conservation of biodiversity by improving the availability and accessibility of biodiversity data, and to facilitate further information gathering.

Our experienced trainers will help participants to assess what information already exists (availability of biodiversity data in Europe and Africa and in other parts of the world), where it is located (biodiversity data sources), and where the gaps in biodiversity information lie (analyze the data in terms of both taxonomic and geographic coverage). Participants will learn how to identify knowledge gaps in general, using GIS tools and statistical methods.

Participants will learn how to build and maintain a relational database using their own datasets (or sample dataset). Participants will also be able to collaborate with external experts, for example from the Global Biodiversity Information Facility (GBIF). Participation of Belgian Biodiversity Platform (Belgian node of GBIF) during this course will ensure the compliance with

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1 Past workshops on GIS and Biodiversity Information and cybertaxonomy have been held in 2009 (Kinshasa, DR Congo; Dar es Salaam, Tanzania); 2010 (Kinshasa, DR Congo); 2011 (Arusha, Tanzania)
GBIF standards and regulations. Participants will get an overview on opportunities for funding, collaboration and publishing. This training is supported by the Belgian Directorate General for Development Cooperation.

2. Training programme

The general objective of this training is to improve the understanding and application of biodiversity information for Sub-Saharan African scientists, university members and students and to increase their participation and ownership in biodiversity informatics.

More specifically:

- To help researchers identify the data from collections, databases and literature that are in their possession and relevant for an on-line publication.
- To involve scientists in digitizing, accessing and sharing data using internationally recognized protocols and tools as those recommended by the GBIF (www.gbif.org) and the Biodiversity Information Standards (www.tdwg.org).
- To enable the use of GIS tools for the visualization of distribution data

Specific topics covered by the training:

**Digital management of collections** (i.e. for collection management software and associated best practices):
- Automated data collection from digital images
- Crowd-sourcing metadata enrichment of digital images
- Access and management of digital collections

**IT applications** (participants will be asked to come with their own data examples to test with the IT programs):
- Biodiversity tools in scientific research: for example, monitoring, GIS, etc.
- Training in GIS and related Biodiversity methods and tools (such as the standards of the TDWG: BioCASE, GBIF, DarwinCore etc.) applicable to the context of SSA.
- Introduction to predictive modeling tools and integration of observational data in models.
- Data mining, data capture.

**How to write a competitive project proposal in the field of Biodiversity information**

Participants will be asked to present their ideas for a collaborative project at the beginning of the training course. An overview of potential funding opportunities as well as a discussion of the most appropriate solution will be given. They will then further develop their ideas according to the funding guidelines. At the second and fourth weeks of the course, their proposals will be discussed.

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2 DISCLAIMER: the workshop programme is subject to change. A definitive programme will be placed on the website after confirmation of availability of all trainers involved.
be evaluated – in order to assist them in submitting more and better proposals. Topics will include: funding opportunities for SSA researchers, eligibility criteria, how to set up a consortium, administrative requirements, budget management. Selected applicants will be asked to come with a concrete project idea that at the end of the course should be ready for a potential real proposal submission.

**Publication strategies for scientific articles**

Another aspect of biodiversity information is dissemination of scientific results (to make them accessible and noticeable) and access to published documents. Much progress has been made in recent years in improving accessibility through open access publishing initiatives. An introduction to open access strategies, for information gathering and publishing, will be provided during the training.

### 3. Profile of the participants

Scientists involved in biodiversity monitoring, biodiversity information systems specialists, collection managers, university members, PhD students. The target audience can be composed of both trained IT professionals and scientists who apply IT technology in the context of biodiversity information management.

Number of participants: 12

### 4. Admission requirements

Only applications from people with residence in Sub-Saharan Africa and working for an institution, ministry, research institute or university can be taken into consideration. Applications from consultants or individuals cannot be accepted.

The candidates’ maximum age at the moment of their application is not to exceed 45 years. Candidates must be citizens of one of the following countries: Benin, Burundi, Burkina Faso, Côte d’Ivoire, Cameroon, Democratic Republic of Congo, Ethiopia, Guinea, Kenya, Madagascar, Mali, Mozambique, Niger, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe.

Scientists with a diploma other than M.Sc or PhD. should demonstrate a record of substantial work related to biodiversity information

All applications will be subject to an evaluation by RMCA internal experts. The training staff may formulate specific conditions for sharing existing data with successful applicants.

**In addition to the candidate’s CV, the following questions will be used for evaluation of the application:**
1. Which direct or indirect benefits does this training entail for the candidate in his future professional career?

2. The knowledge and skill level in the field of GIS and database management specifically related to biodiversity information.

3. The nature and scope of personally managed databases (as these will be used for practical exercises during the training) and the format of storage (excel, access or other).

**Mastering of languages**

As the training and the complete documentation are mainly given in English, the candidate is to master this language well.

**Equality of opportunities**

The RMCA pays special attention to the participation of women in its study visit programs.

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5. **Instructions for application**

A complete application file, electronic version sent by email, consists of :

1. the application form, which can be downloaded from the RMCA internet site at the following address: [http://cabin.cybertaxonomy.africamuseum.be](http://cabin.cybertaxonomy.africamuseum.be). This application form has to be completed, dated and signed by the applicant.

2. a separate motivation letter outlining
   - why you consider yourself a good candidate for this training,
   - what would be the benefits of your training to your home institute,
   - what is the level of direct or indirect benefits of the training for you in future research/work,
   - your intentions as to sharing the knowledge gained during the training,

3. a letter from your employer (research institution, ministry, university,...) authorizing your participation in the requested training, confirming your current position within the institution and indicating a commitment to make good use of the newly acquired expertise. This letter must be dated and signed (+ stamp of the institution). The name, position and address of the author of the letter must be clearly mentioned.

4. a letter of recommendation indicating, amongst others, why you are particularly well placed or suited for this training. This letter must be dated and signed with clear mention of the name, position and address of the person.

5. copies of relevant diplomas (MSc or PhD – or affirmation in the recommendation letter concerning adequate level of your professional experience).
6. 1 recent passport photograph.

Only complete application files will be taken into consideration. No additional information communicated afterwards will be accepted, unless upon specific request from the RMCA.

**The complete application file should reach the following email address before 15/03/2013 (deadline):**

E-mail: bioinfotraining@africamuseum.be

Applications per email are preferred. If not possible, a paper copy of the application file can be sent per regular mail to the following postal address (file must arrive before the deadline):

Ms. Muriel Van Nuffel, Training and Study Visit Coordinator
Royal Museum for Central Africa
Leuvensesteenweg 13
B 3080 Tervuren, Belgium

Reception of application files will only be acknowledged by e-mail to the email address to be mentioned in the application form. This acknowledgement will be done shortly after the application form is received.

All applicants will be personally informed of the results of the selection process by the end of March 2013. Successful applicants will have to send their original file per regular mail.

**NB:** the persons *selected for the training* will be asked to bring along their data to be used during the practical exercises, as well as an example of a project for which they would like to seek funding (this will be used for development of a proposal that they may later submit to a funding agency of their choice – please note that the development of this proposal is in no way a guarantee for success in attaining funding).

6. Scholarship conditions

**Duration:**

4 weeks’ training session (03-28/06/2013)

**Travel expenses:**
The RMCA will provide one round-trip ticket (economy class). Some expenses related to obtaining the visa will be reimbursed.

**Allowances:**
- Daily allowance covering board, individual transport, and personal expenses of the selected applicant,
- Accommodation provided by the RMCA.

**Insurance:**

The RMCA will provide insurance for the selected applicants. The insurance will cover:

1. medical and accident insurance (this insurance does not cover medical care related to pre-existing diseases, nor does it cover medical expenses related to pregnancies and/or births),
2. third-party liability,
3. repatriation insurance.