

## Royal Museum for Central Africa African Biodiversity Information Centre (ABIC)

***Call for applications for scholarships for scientific study visits on  
biodiversity in African Zoology and Wood Biology  
Year 2012***

**Deadline for submission of applications : October 14 2011**

**Period of realization of the visits : from February 1, 2012 till**

**December 21 2012.**

### 1. General context

Through an agreement with the Belgian Development Cooperation, the Royal Museum for Central Africa (RMCA) at Tervuren (Belgium) has each year a **number of scholarships available for scientific study visits to the RMCA collections.**

These scholarships contribute to the sharing of biodiversity data to African institutions, as stipulated in the Convention on Biological Diversity signed by Belgium.

The RMCA curates more than 10 million biological specimens from Africa, and holds by far the most important zoological collections in the world from central Africa. For instance, the Zoology Department counts 150.000 birds, 200.000 amphibians, 40.000 reptiles, 90.000 mammals, 950.000 fishes, 6 million insects and 1 million other invertebrates. These collections originate for more than 80% from Congo, Rwanda and Burundi (see more at [www.africamuseum.be](http://www.africamuseum.be)).

The Xylarium of the RMCA also counts on a very important collection of more than 60.000 wood specimens and 14.000 different types of wood. It is an essential reference center with a huge amount of documentation on wood and tropical trees. The specimens are used for new taxonomic researches and for the ecological indicators contained in their anatomic characteristics. The xylarium database can be consulted online at the following address : <http://www.metafro.be/xylarium>

All these specimens were historically collected as taxonomic references material. The collections contain an enormous wealth of biodiversity information. Collections also have

an historical component : in some cases time-series can be identified and changes in biodiversity studied. The RMCA employs scientists with specializations in different fields and who produced much added research value to the collections.

Because of the uniqueness and global importance of the collections at the RMCA, there is a growing interest to consult and study the collections and to use the biodiversity information they contain.

The RMCA wants to share the data on African biodiversity of its collections and in this view created on its own initiative the African Biodiversity Information Center (ABIC). This initiative allows each year visits of African scientists to the Museum.

In the scope of the Convention on Biological Diversity, the RMCA collaborates with the Royal Belgian Institute of Natural Sciences (RBINS). This institute works on individual and institutional capacity building in taxonomy and collection management of zoological specimens for developing countries. (<http://bch-cbd.naturalsciences.be>)

## 2. Characteristics

In principle scholarships are awarded to research projects that fit the development co-operation obligations following the Convention on Biological Diversity (<sup>1</sup>), involving RMCA collections and/or staff experiences and contributing to identification, conservation and sustainable use of biodiversity:

The RMCA's Internal Selection Committee will evaluate the research project according to their adequacy to the resources available in the RMCA and the answers to the following questions :

1. Does the project make optimal use of RMCA collections or of the scientific expertise available ?
2. What use will the candidate make of the results of his/her work at the RMCA ? Is there a sustainable impact of the project ? What are the future prospects after the research visit (publication , collaboration,...) ?
3. Is the research project relevant to the key conventions of the development cooperation with regard to the Convention on Biological Biodiversity ?  
With particular attention for :
  - exchange of information, results of research and specialised knowledge,
  - promotion of research, technical and scientific co-operation, particularly through joint research programmes; exchanges of experts,
  - provision of scientific and technical education and training; human capacity building, institutional strengthening,
  - support for in-situ or ex-situ conservation,
  - special consideration will be given to the most environmentally vulnerable areas (e.g. islands, mountains, arid zones).
4. Does the research project contain one or several priority themes of the development cooperation in the study of biodiversity ?
  - Sustainable development of water, including use and sustainable management of humid areas
  - Fight against desertification and land degradation
  - Conservation and sustainable management of forests

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<sup>1</sup> Except Clearing House matters; please refer to <http://bch-cdb.naturalsciences.be/homepage.htm>

- Improvement of ecological management of cities and suburbs
  - Fight against climate change consequences
5. What is the level of direct or indirect benefits for biodiversity conservation or its understanding ?
  6. What is the level of direct or indirect benefits for biodiversity sustainable use or its understanding ?

Projects perceived as damaging to the collections or scientifically inappropriate will not be taken into consideration. Furthermore, curators may formulate specific conditions for the use of the collections or for the sharing of existing data by successful applicants.

The Internal Selection Committee of the RMCA decides on the attribution of scholarships to research projects according to the requested criteria, to the feasibility of the project, to the availability of the RMCA scientists, to the candidate's curriculum vitae and to the adequacy with the RMCA mission statement. No appeal regarding to the selection will be received.

### 3. Target group

The scholarships target two categories of scientists:

1. **young African PhD students with doctoral work well defined** and preferably well advanced. Their visit will consist in a study of the RMCA collections and/or having access to the expertise of RMCA scientists who can make a substantial difference to the quality of their PhD research. Duration of the visit: from 2 weeks up to maximum 8 weeks. Applicants may not be older than 40 years at the moment of the application.
2. **African scientists** (experts) with a substantial curriculum specialised in African biodiversity and on the subject proposed. The purpose of the visit is to allow the scientist to complete a study on a particular subject and/or to assist in the identification and databanking of sections of RMCA collections. As scientists are expected to work autonomously in the collections, visits on collections for which there is no RMCA specialist are also possible (please contact the RMCA curators – see [www. Africamuseum.be](http://www.Africamuseum.be)). Duration of the visit : from 2 to 4 weeks maximum.

### 4. Eligibility criteria

Only applications from candidates **from Sub-Saharan Africa** (and residing in this region) **from the following countries** : Bénin, Burundi, Burkina Faso, Cameroun, Côte d'Ivoire, Democratic Republic of Congo, Ethiopie, Guinée, Kenya, Madagascar, Mali, Mozambique, Niger, Ouganda, Rwanda, Sénégal, South Africa, Tanzania, Zambia, Zimbabwe, working for a public institution : university, ministry or research institute, will be taken into consideration. Independent experts or consultants are not eligible for the scholarships.

Priority will be given to applicants who did not yet benefit from other scholarships in Belgium in the last two years.

## **Academic background or professional experience**

For doctoral research projects, the academic qualities of the applicants will be examined on the basis of diplomas, classes taken, academic results, on-going or past research activities and eventual publications.

For scientific visits, professional experience in relation with the application and relevant publications will be taken into consideration.

## **Language skills**

A good command of English or French is requested in case it would not be the mother tongue or the language of education of the applicant.

Please note that most of the available documents or reference books in the RMCA are in English or French. Reading comprehension of French is thus an asset for English speaking applicants.

## **Gender equality**

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

## **5. Scientific fields taken into consideration**

### **5.1. Entomology:**

#### Category : PhD

All subjects are eligible, but priority will be given to activities within the framework of current research projects of the entomology section :

- systematic research on Diptera (in particular Tephritidae) and Lepidoptera (in particular moths and microlepidoptera),
- specimen database development on Odonata, Neuroptera, Isoptera, Orthoptera, Diptera and Lepidoptera,
- research focussing on the study of biogeographical patterns in the Afrotropical region,
- studies of insect-hostplant relationships.

#### Category : expert

All subjects on the museum collections are eligible. Please contact the curator :

[marc.demeyer@africamuseum.be](mailto:marc.demeyer@africamuseum.be)

### **5.2. Herpetology**

#### Category : PhD

All subjects concerning faunistics and systematics of reptiles and amphibians are eligible, but priority will be given to studies involving :

- study of new fauna collections [balanced in view of collection effort and species diversity, and properly documented (also ecologically)],
- use of RMCA-collections by critical review (determination and distribution check), consequently priority tends to go to collections from R.D. Congo, Rwanda, Burundi, but also Cameroon, Ivory Coast, Togo,...

- development of practical workable determination keys at least for regional use [preferably practical for both museological and field use],
- subjects focusing on systematic groups are preferred to general faunistic studies of a local nature.

Category : expert

All subjects on the museum collections are eligible. Please contact the curator :

[danny.meirte@africamuseum.be](mailto:danny.meirte@africamuseum.be)

**5.3. Ichthyology (lacustrine):**

Category : PhD

The study of African cichlids in general, with a special emphasis on the East African great lakes region :

- taxonomy and phylogeny of haplochromine cichlids of the Lake Victoria super-flock (Victoria, Kivu, Edward, George, Albert and associated basins),
- taxonomy, phylogeny and distribution of Lake Tanganyika cichlids,
- biodiversity patterns and conservation of the endemic cichlids of Lake Malawi/Nyasa/Niassa.

Category : expert

All subjects on the museum collections are eligible. Please contact the curator :

[jos.snoeks@africamuseum.be](mailto:jos.snoeks@africamuseum.be)

**5.4. Ichthyology (riverine):**

Category : PhD

All subjects are eligible, but priority will be given to activities within the framework of current research projects :

- biodiversity studies of fresh-and brackish water fishes from West-Central Africa (Cameroon, Equatorial Guinea, Gabon and Congo-Brazzaville),
- biodiversity studies of fishes from the Congo Basin,
- impact of anthropogenic activities on African fish and fisheries,
- development of FishBase ([www.fishbase.org](http://www.fishbase.org)). (Check our Fishbase training call for applications on [www.africamuseum.be](http://www.africamuseum.be)).

Category : expert

All subjects on the museum collections are eligible. Please contact the curators :

[jos.snoeks@africamuseum.be](mailto:jos.snoeks@africamuseum.be); [emmanuel.vreven@africamuseum.be](mailto:emmanuel.vreven@africamuseum.be).

**5.5. Mammology:**

Category : PhD

All subjects are eligible, but priority will be given to activities within the framework of current research projects :

- research on endemic taxa from Africa and particularly on Afrotheria, pangolin and artiodactyls

- taxonomic research combining morphological and molecular data obtained from the RMCA's collections and eco-ethological data from the field
- biology of primates and conservation strategies of African primates

Category : expert

All subjects on the Museum collections are eligible. Please contact the curator : [emmanuel.gilissen@africamuseum.be](mailto:emmanuel.gilissen@africamuseum.be)).

**5.6. Non-insect invertebrates:**

Category : PhD

All subjects involving the collections and expertise of RMCA scientific personnel are eligible, but emphasis is laid on :

- evaluation of rainforest and other endangered biota based on selected invertebrate taxa,
- resilience of tropical biota,
- biodiversity monitoring using megadiverse invertebrate taxa,
- species database development on a continental scale for terrestrial invertebrates,
- studies about the selection of taxa for biological control in agriculture.

Category : expert

All subjects on the museum collections are eligible. Please contact the curator : [rudy.jocque@africamuseum.be](mailto:rudy.jocque@africamuseum.be)

**5.7. Ornithology:**

Category : PhD

All subjects are eligible, but priority is given to the following areas and approaches :

- taxonomic research combining morphological data, molecular phylogenies, and eco-ethological data from the field,
- research relating to the taxa endemic to Africa,
- biodiversity patterns and conservation strategies in Africa,
- morphology of African birds, particularly work focussing on the significance of age- and sexual dimorphism in plumage; moult studies,
- island syndromes and their conservation consequences,
- research on crop raiding species.

Category : expert

All subjects on the museum collections are eligible. Please contact the curator : [michel.louette@africamuseum.be](mailto:michel.louette@africamuseum.be)

**5.8. Wood Biology**

Wood biology is a discipline studying : wood anatomy, dendrochronology, growth rings of trees,... This discipline gives the necessary scientific information on tree growth or wood quality and contributes to a sustainable forest management

Category : Phd

All subjects on wood biology (anatomy and dendrochronology) are eligible, but priority is given to the following areas and approaches :

- analyse of cambial dynamic of mangroves

- analyses of annual rings in the tropical forest and in the clear zambezi forest

All topics concerning wood biology (anatomy and dendrochronology) could be considered but priority is given to

- the analysis of the dynamics of cambial activity of mangroves
- the analysis of growth rings of trees of the equatorial forest and the Zambesian Miombo Woodland

The study material for the visit consists of samples collected in the field by the PhD student (herbarium material, mature secondary xylem, stem disks) and specimens from the Tervuren Xylarium.

Category : expert

All topics related to the xylarium (collection of samples, thin section, microscopic photographs and stem disks) will be taken into consideration.

Please contact the curator : [hans.beeckman@africamuseum.be](mailto:hans.beeckman@africamuseum.be)

## 6. Instructions for application

The selection process consists of :

- 6.1. the submission of a motivation letter + application form completed
- 6.2. the submission of a detailed research project (if project selected in the first phase)

### **6.1. Submission of a motivation letter :**

The first step of the selection process consists in the submission of a **motivation letter**. This letter must present a brief description of the research project and the reasons why the candidate wants to carry out this research in the RMCA. (max. 2 A4 pages)

The motivation letter and the registration form (to be downloaded from the RMCA website - <http://www.africamuseum.be/research/collaborations/training>) must be sent by email **before October 14 2011** to the following address : [callabic@africamuseum.be](mailto:callabic@africamuseum.be)

The selected candidates will be invited to participate in the second step of the selection and to send their complete research project before November 18 2011 .

Reception of application files will only be acknowledged by e-mail to the e-mail address to be mentioned in the application form. This acknowledgement will be done at the latest by end October 2011.

### **6.2. Submission of the detailed research project :**

Candidates selected for submission of a complete research project must submit it before November 18 2011. The complete research project consists of :

- a summary of the project : title, description (maximum 500 words), duration and preferred periods for the visit (minimum 2 options),

- a detailed description of the project including the objectives, the methods, the expected results and a planning of activities (timeframe) as justification for the duration of the stay. Moreover, the project must specify the level of direct or indirect benefits for biodiversity conservation and/or sustainable use of biodiversity or its understanding (see P. 2 – characteristics) (maximum 7 A4 pages font 12).
- an authorization letter from your employer,
- a letter of recommendation,
- photocopies of diplomas,
- 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.

All applicants will be personally informed of the results of the selection process in December 2011.

## 7. Scholarship conditions

**Detailed information on the practical and financial conditions of the scholarship will be send to selected candidates.**

### **Duration :**

Visits for doctoral research : from 2 to 8 weeks.

Expert visits : from 2 to 4 weeks.

Study visits will take place between February 01, 2012 and December 21, 2012 according to the availability of curators.

No prolongation of the scholarship duration can be authorized once the scholar started his/her stay at the RMCA..

### **Travel expenses :**

The RMCA will provide one round-trip ticket (economy class).

Some expenses related to visa obtention will be reimbursed.

### **Allowances :**

The RMCA takes care of the accommodation. The daily allowance of 40€ will cover board, individual transport and personal expenses of the selected applicant.

### **Insurance :**

All RMCA scholar will benefit from a medical and accident insurance for the duration of his/her stay at the RMCA.