

**The Royal Museum for Central Africa - Belgium  
The Invertebrates Section**

**The National Museums of Kenya – Kenya**

**The International Centre of Insect Physiology and Ecology - Kenya**

**Training course in taxonomy and systematics of African pollinating  
flies**

**Organized at the National Museums of Kenya and the  
International Centre of Insect Physiology and Ecology, Kenya**

**Session 2017**

**Call for applications for 15 scholarships**

**Opening and closing date of the applications: 01/06/17 till 31/08/17**

**Training: from 20/11/2017- 01/12/2015**

1. Context

Plant-pollinator networks describe the complex interactions between pollinators and flowering plant, and among plants and pollinators. Several fly families (Diptera) belong to the most important pollinators of a variety of plant species, including agricultural crops; and thus are an important aspect of plant-pollinator networks. Their significance may even be increasing due to a worldwide decline in other pollinator groups such as bees and butterflies. However, the identification of these dipteran groups is not easy and requires a specific training. In addition, some ground level knowledge on how to assemble data of use for studying basic ecological aspects of plant-pollinator networks, is a prerequisite in any applied program. By means of this basic training, local specialists will be less dependent on exterior expertise in this respect and will be able to carry out independent research.

This training is organized by three institutions: the Invertebrates Section of the Royal Museum for Central Africa in Belgium, the National Museums of Kenya (NMK, Nairobi) and the International Centre of Insect Physiology and Ecology (ICIPE, Nairobi) in Kenya.

The Royal Museum for Central Africa has at the moment an internationally renowned expertise related to the taxonomy and systematics of African Diptera. The Invertebrates Section has vast documentation and sample collections at its disposal.

The RMCA has a research partnership on pollinating Diptera with the NMK and ICIPE through the JRS Biodiversity Foundation project 'PINDIP' (Pollinator Information Network for sub-Saharan two-winged insects). See:

<http://jrbsbiodiversity.org/grants/royal-museum-central-africa/> for more information on the project. Both NMK and ICIPE have considerable expertise in the organization of training courses in entomology.

## 2. Training programme

The objective of this group training is to ensure, for the sake of the African scientists or the persons confronted with the problem, a basic training on the identification and ecology of African Diptera that have a significant role in plant-pollinator networks. The target families are Bombyliidae, Calliphoridae, Mythicomyiidae, Nemestrinidae, Rhiniidae, Syrphidae, and pangonine Tabanidae).

The course will take place over 10 working days and be taught in English. It shall consist of ex-cathedra courses on morphology, classification, identification, identification methods, collection methods, and conservation methods of Diptera, with a special focus on the target families listed above. Practical exercises will be used to comment on and test the topics presented in the courses.

Participants shall be asked to bring material they collected so it can be identified during practical work sessions. Likewise, should they have large datasets at their disposal, these may also be analysed.

### **Provisional programme**

Day 1 (Mon/Nov 20)

Introduction, practicalities, programme  
Visit NMK and ICIPE

Day 2 (Tue/Nov 21)

Trapping methodologies  
Insect preservation, dissection, and collection management  
General morphology of Diptera  
Introduction to Plant-pollinator networks

Day 3 (Wed/Nov 22)

Practical: setting up traps in the field – general fieldwork  
Taxonomy, systematics, and phylogeny of Afrotropical Diptera  
Identification keys for Afrotropical Diptera  
Practical in morphological terminology and identification of Afrotropical dipteran families

Day 4 (Thu/Nov 23)

Taxonomy and Identification of the family Syrphidae  
Practical in identification Afrotropical Syrphidae  
Taxonomy and Identification of the family Rhiniidae  
Practical in identification Afrotropical Rhiniidae

Day 5 (Fri/Nov 24)

Taxonomy and Identification of the families Calliphoridae and Rhiniidae  
Practical in identification Afrotropical Calliphoridae and Rhiniidae

Day 6 (Mon/Nov 27)

Taxonomy and Identification of the families Bombyliidae and Nemestrinidae  
Practical in identification Afrotropical Bombyliidae and Nemestrinidae

Day 7 (Tue/Nov 28)

Taxonomy and Identification of the families Mythicomyiidae and pangonine Tabanidae  
Practical in identification Afrotropical Mythicomyiidae and pangonine Tabanidae

Day 8 (Wed/Nov 29)

Identification of trapped and own material

Day 9 (Thu/Nov 30)

Identification of trapped and own material  
Analysis of plant-network relationships

Day 10 (Fri/Dec 1)

Networking & Regional groups  
Future collaboration  
Conclusion  
Handing out certificates

After having followed this training, the selected candidates will be able to discover the possibly beneficial pollinator Diptera of the target families and to proceed to an unambiguous identification. They will have general knowledge on the basic ecology of plant-pollinator networks and the role of Diptera in these.

After the training, a collaboration can be considered between the candidate, the institute of origin, the NMK, ICIPE and the RMCA.

### 3. Profile of the participants

The training can receive 15 participants, among whom researchers and employees who are confronted with pollinating flies on a professional level. They may be employees from agricultural institutes, professors of agricultural faculties, researchers from national or international institutions, etc. Participants must have a minimum level of knowledge in basic Diptera ecology. The candidates' maximum age at the moment of their application is not to exceed 45 years.

### 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.

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 MSc or PhD. should demonstrate a record of substantial work related to the subject that is presented (Diptera of the target families; plant-pollinator networks, etc.).

All applications will be subject to an evaluation by 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 (to be developed in the motivation letter) :**

- (1) Which direct or indirect benefits does this training entail for the candidate in his future research? Or which are the immediate perspectives offered by the training in the progress of the professional activities?
- (2) Which are the candidate's projects as to the use of the knowledge gained during the training?
- (3) Which are the perspectives of a continued collaboration between the candidate, his institution and the RMCA? Which are the mutual benefits that may be expected from this collaboration?
- (4) What would be the benefits of your training to your home institute?

### **Mastering of languages**

As the training and the complete documentation (identification keys, scientific articles) are in English, the candidate is to master this language well.

### **Equality of opportunities**

Special attention is given to the participation of women to this programme.

## **5. Instructions for application**

A complete application file consists of :

1. the application form, which can be downloaded from the RMCA internet site at the following address: [www.africamuseum.be](http://www.africamuseum.be) (in the cooperation section from the research institute). 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,
- the perspectives of a continued collaboration between yourself, your institution of origin, NMK, ICIPE and the RMCA

3. a letter from your employer (research institution, ministry, university,...) authorizing your participation in the requested training, confirming the direct benefits to the institution, 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,

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 addresses before 31/08/2018 (deadline) :**

[callpollinatingflies@africamuseum.be](mailto:callpollinatingflies@africamuseum.be)

[kurt.jordaens@africamuseum.be](mailto:kurt.jordaens@africamuseum.be)

Applications per email are preferred. If not possible, a paper copy of the application file can be send 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 e-mail 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 end of September 2017. 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 the samples of flies of the target families well preserved in alcohol or prepared (stuck or pinned) and clearly labeled, in view of the training.

6. Scholarship conditions
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**Duration:**

10 days' training session

**Travel expenses:**

One round-trip ticket (economy class) will be provided  
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.