

**TRAINING WORKSHOP ON DIGITIZATION**  
**BEST PRACTICES**

**PROJECT: African Insect Atlas: unleashing the  
potential of insects in conservation and  
sustainability research in Africa**

**29<sup>th</sup> May – 02<sup>nd</sup> June 2017**

***Venue: Woodlane Hotel***



The [BID programme](#) is funded by the [European Union](#) and co-funded by [GBIF](#)



**Project Synopsis:** The core of the African Insect Atlas Project is the remaking of the analog Natural History collections. The project is a regional collaboration between 6 African countries (Botswana, Zimbabwe, Mozambique, South Africa, Madagascar, Kenya). Its vision is to create a digital museum for targeted insect groups of Africa. By collating, digitizing and georeferencing specimens from Natural History collections in these African countries, insects, the more sensitive barometers of ecological conditions than the vertebrates used today, will become a tool for African conservation science and policymaking. By investing in training and the formation of a cross-institutional network, digitization efforts will continue even after the GBIF funding phase.

**Objectives of the Workshop:** Capacity building is essential to ensure that digitization becomes ingrained as a routine part of each museum's daily curation and research activities. To achieve this, the department hosted the training workshop as part of the African Insect Atlas project efforts. Ms Kudzai Mafuwe, Bioinformatics mentor from Zimbabwe team was invited to facilitate the training for the BNM project team. The following were the objectives:

- To enhance capacity of the BNM project team on digitization, data cleaning , georeferencing and data publishing techniques
- To help the team select best tools for data cleaning and georeferencing, as per the recommendations of the Facilitator

**Topics covered:**

Importance of digitizing and publishing data  
Digitization and workflows to help manage the digitization projects  
Data quality and Data standards  
Data cleaning (with practicals)  
Taxonomy check in catalogue of life, GBIF Parsing (with practical)  
Georeferencing in Geolocate (with practical)  
Data cleaning in OpenRefine (with practical)  
Geography checks, taxonomy checks in OpenRefine  
Geography checks in QGIS  
Data sharing checklists, occurrence records, sampling records  
Data hosting platforms: GBIF, Websites and sharelinks  
Data papers in peer review journals  
GBIF IPT and data hosting options

**Participants:** 20 staff members from Natural History Division, Ethnology Division, Education Division and IT Division.



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**Mode of Delivery:** The workshop was more of an interactive setting as the facilitator engaged all participants in discussions and hands-on practicals.

**Challenges:**

1. The whole content for the training required more than 5 days to be trained on
2. Project team had challenges with topics such as ‘Geography checks in Openrefine and QGIS)
3. Inadequate IT infrastructure

**Recommendations:**

1. The BNM team needs further capacity enhancement. Training is required on Geography checks, especially in QGIS. Training will also be critical especially when doing occurrence and distribution maps.
2. Refresher courses for the team on data cleaning and publishing data through GBIF.





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