

Final report of the 2023 of the visit to the FSCA/McGuire Center Collections

By Roy Goff (Africanmoths.com)

Introduction

I operate a non-commercial website (africanmoths.com) in my spare time, primarily for the purpose of assisting people with the identification of moths caught in Sub-Saharan Africa. The site is picture-based, so my goal is that anybody with an unidentified specimen or a photograph can easily identify them. My aim is also to promote the study of African moths both to amateur Lepidopterists and university students by making identifications easier and without the need to consult specialty literature, which can be very hard to obtain in Africa, especially in less developed countries. To improve my site, I am always in need of well-curated material – something that is rarely found outside of large state-owned institutions.

The McGuire Centre/FSCA collections hold many important, formerly private, collections of African moths. For example, there is recent collection from Malawi in Central Africa created by Ray Murphy, extensive holdings of moths collected in Africa by John Heppner, and a very significant collection made by H. Politzar in 1970-1990. These holdings form the bulk of the African moth species that I have worked with so far during my visits to the McGuire Center/FSCA, but I also found other interesting material, for example, voucher specimen collection of Geometridae from H Staude, a noted specialist on African geometrids, which contains about 250 species.

Photography

Previously I have photographed specimens from the Lasiocampidae, Notodontidae, Bombycoidea, Cossidae and Limacodidae. This year I concentrated on the Noctuoidea.

During my visit, I took 3,105 photographs of 856 species. Over 100 of these species were not until now available anywhere, and 279 species will be new to the africanmoths web site. Additionally, many of these species were until now represented by a single specimen, and many showed only the upper side of the specimen: all specimens I photograph are taken from under and upper side, and labels are also included in photographs. As a result, it is easy to determine that

many specimens I photographed also represent new country records. To conclude, my visit to the FSCA/McGuire Center collections, which was sponsored by the Center for Systematic Entomology (CSE) and McGuire Center, has greatly increased our knowledge of African moths and allowed to make this knowledge widely available. Additionally, I have forwarded all photographs to Willy De Prins who runs the Afromoths.net project so he can include them on his site, which is more scientific in nature. Willy has uploaded an example of the photographs at the following link.

[Moth's FrontOffice \(afromoths.net\)](http://Afromoths.net)

All photographs taken by me include a ruler and all labels, according to the digitization standards of the FSCA/McGuire collections. A further barcode label with a unique identifier has been added to each specimen:



Curation

Much of the Noctuoidea held by the museum still needs curation. There are close to 40 drawers of spread uncured moths, and although most is Noctuoidea there are also specimens of other superfamilies within this protom section. During my visit, I curated these drawers to family level. I was able to spend a day and a half working on *Zamarada* (Geometridae), which are notoriously difficult. Thankfully, there is a comprehensive work by D. Fletcher on this genus, and there are two copies at FLMNH. Because I have a collection of photographs of all the African Geometridae from the Natural History in London, I was able to share this resource with Bob Belmont, current curator of geometrids at the McGuire Center, which should assist him in his work. The geometridae drawers are in need of further curation and this will eventually be undertaken by Bob Belmont as part of his work. I was also able to curate some of the

Metarbelidae and Eutelidae, families that are largely African in distribution. The number of specimens and species within these two families is quite small, but they have now been fully curated. Now, they are placed in their own sections within the collection. During the photography I was able to identify 57 species and have also updated the names of a further 64 species where nomenclature has changed. Over 40 specimens were also repaired where either wings or abdomens had come loose in the drawers.

I sincerely hope that my contribution to the FSCA/McGuire Center's collections will continue in the future. There is still a lot of work to do: I have only just started on the Geometriidae, and have yet to work on Sphingidae and Saturniidae, the two families that attract much attention from collectors due to their size. The collection also holds a vast number of specimens from the Pyraloidea superfamily and various micro-lepidoptera.