



<http://dx.doi.org/10.11646/zootaxa.3985.3.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:46DE9DD6-55E3-4BF5-A2AF-A058A0294A72>

Observations on the Biology of Afrotropical HesperIIDae (Lepidoptera). Part 8. HesperIIDae *incertae sedis*: *Dracaena* Feeders

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Abstract

The Afrotropical genera *Gamia* and *Artitropa* are only known to feed on species of *Dracaena* (Asparagaceae), and together with *Leona lissa* Evans, which may require a new genus, they are the only Afrotropical HesperIIDae that feed on this unusual host genus. We present partial life histories of two species of *Gamia*, 22 taxa of *Artitropa* (of at least 12 species, and including several undescribed taxa), and notes on the life history of *L. lissa*. Based on life history information, *Gamia* and *Artitropa* are considered likely to form a monophyletic group, probably most closely related to some of the palm-feeding genera currently placed *incertae sedis*, but formerly in Evans' 1937 *Ploetzia* group of genera. Notes on natural enemies of *A. erinmys* (Trimen) and *A. milleri* Evans are included.

Key words: *Gamia*, *Artitropa*, *Leona*, *Dracaena*, Asparagaceae

INTRODUCTION

This is a further contribution to a series on the biology of Afrotropical HesperIIDae, which have dealt with Coeliadinae in Part 1 (Cock 2010), the Pyrginae tribes Tagiadini (Part 2: Cock & Congdon 2011a) and Celaenorrhini (Part 3: Cock & Congdon 2011b). Treatments of the remaining tribe of Pyrginae (Carcharodini) and the Heteropterinae have been deferred to tackle the HesperIIDae, where documented life histories are likely to be helpful in untangling the classification of the subfamily in the context of T.B. Larsen's on-going revision of the Afrotropical species.

Part 4 (Cock & Congdon 2012) introduced the Afrotropical HesperIIDae and treated the biology of the Afrotropical Baorini, which are grass-feeders, although we anticipate that one or more species will be found to feed on Arecaceae instead, or as well (Cock *et al.* 2014). The remaining Afrotropical HesperIIDae are currently *incertae sedis* (Warren *et al.* 2009). In our treatment, we have grouped the HesperIIDae *incertae sedis* based on their known food plants: part 5 dicotyledon feeders (Cock & Congdon 2013), part 6 palm- (Arecaceae) feeders (Cock *et al.* 2014) and part 7 grass and bamboo (Poaceae) feeders (Cock & Congdon 2014). Here, in part 8 we cover the *Dracaena* spp. (Asparagaceae) feeders and part 9 in preparation will cover the remaining HesperIIDae, which are all Zingiberales-feeders.

Evans (1937) divided the HesperIIDae into a series of genera groups. The Afrotropical HesperIIDae *incertae sedis* species that feed on *Dracaena* spp. are the genera *Gamia* Holland and *Artitropa* Holland and one species of *Leona* Evans, the other species of *Leona* being palm feeders (Cock *et al.* 2014) or Zingiberales feeders (Cock *et al.* in prep.). Evans (1937) placed all three genera in his Afrotropical *Ploetzia* group of genera, along with 12 other genera. The *Ploetzia* group includes palm feeders (Cock *et al.* 2014), grass and bamboo feeders (Cock & Congdon 2014) and Zingiberales feeders (Cock *et al.* in prep.). The food plants of two genera of this group (the Madagascan endemic *Malaza* Mabille and the West and central African monotypic *Mopala* Evans) remain unknown. They are likely to fit into one of these food plant groupings, but we have surveyed *Dracaena* spp. sufficiently to conclude that they are almost certainly not *Dracaena* feeders.

Material in The Natural History Museum, London (BMNH) and the Hope Entomological Collections, Oxford University Museum (HEC) was also examined in preparing this account. Although we have not cited Mark Williams' website *Afrotropical Butterflies* (<http://www.atbutterflies.com/>) we did check against this comprehensive compilation of information on HesperIIDae, to make sure that we had not overlooked important references on the biology of the species treated here.

As in previous papers, material referred to as TCEC in this paper reflects the outputs of the Butterfly/Host Plant Research Programme which has run in Tanzania and neighbouring countries for over 20 years under the auspices of the Tanzania Commission for Science and Technology (COSTECH). The key researchers have been T.C.E. Congdon, I. Bampton (deceased May 2010) and S.C. Collins. TCEC did all of his rearing in collaboration with the late Ivan Bampton, and it is not possible to separate the efforts of these co-workers. However, TCEC did all the photography and writing up of what they reared together. Hence, reference to TCEC collections in this paper should automatically be considered to include Bampton. Both Congdon and Bampton have been Research Associates of the African Butterfly Research Institute (ABRI) since its inception in 1996, and all material collected and reared under the COSTECH programme has been incorporated in the ABRI collection in Nairobi.