



Zootaxa 3831 (1): 001–061
www.mapress.com/zootaxa/

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Monograph

ISSN 1175-5326 (print edition)

ZOOTAXA

ISSN 1175-5334 (online edition)

<http://dx.doi.org/10.11646/zootaxa.3831.1.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:2EF9A3DB-0EAA-4384-8ADA-A7D269E5904D>

ZOOTAXA

3831

Observations on the biology of Afrotropical HesperIIDae (Lepidoptera). Part 6. HesperIIDae *incertae sedis*: palm feeders

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Magnolia Press
Auckland, New Zealand

Accepted by C. Prieto: 10 Jun. 2014; published: 8 Jul. 2014

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(*Zootaxa* 3831)

61 pp.; 30 cm.

8 Jul. 2014

ISBN 978-1-77557-441-5 (paperback)

ISBN 978-1-77557-442-2 (Online edition)

FIRST PUBLISHED IN 2014 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: zootaxa@mapress.com

<http://www.mapress.com/zootaxa/>

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ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

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Abstract

Partial life histories for 12 Hesperiiinae *incertae sedis* that feed on palms (Arecaceae) are described and illustrated. The genera dealt with are: *Perrotia* (part), *Ploetzia*, *Zophopetes*, *Gretna* (part), *Pteroteinion*, *Leona*, and *Caenides* (part) (all from Evans' *Ploetzia* genera group). Although *Gamia* spp. have been reported to feed on palms, these records are considered to be in error, as caterpillars of this genus feed on *Dracaena* spp. (Asparagaceae). The life histories of the species documented are fairly uniform, in that caterpillars of most species have rounded brown heads, wider basally, with or without limited black markings, smooth bodies and make simple shelters by rolling leaves. Variation in caterpillar markings and male genitalia of *Zophopetes dysmephila* (Trimen) and caterpillar and adult markings of *Gretna carmen* Evans merit further study. In *G. carmen*, *G. waga* (Plötz) and *G. balenge* (Holland), the caterpillars' head and body are covered with hair-like setae, and develop an extensive covering of white waxy powder, which in *G. balenge* also covers the long setae. Furthermore, the pupa of *G. balenge* is unusual in having a pair of large, elaborate processes frontally on the head; when disturbed, the pupa vibrates violently and rattles noisily against the sides of the shelter. *Ploetzia amygdalis* (Mabilie) and *Pteroteinion laufella* (Hewitson) have gregarious caterpillars, whereas the remaining species are solitary. After eclosion, the first instar caterpillars of *Gretna* spp. moult to the second instar without feeding. The implications of a palm-feeding life-style are discussed, and economic damage and plant quarantine risks to coconut, oil palm and ornamental palms pointed out. The known life histories suggest that all Afrotropical palm-feeding Hesperiididae will belong in the same tribe when the *incertae sedis* section is further elucidated, although the affinities of *Gretna* deserve further consideration.

Key words: *Perrotia*, *Ploetzia*, *Zophopetes*, *Gretna*, *Pteroteinion*, *Leona*, *Caenides*, *Gamia*, Arecaceae, food plant, life history, leaf shelter, parasitoid

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. The ABRI team is most grateful to the Tanzania COSTECH for permission to pursue our research in Tanzania over the last 20 years.

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