

BOOK REVIEW

REVISED CATALOGUE OF THE AFRICAN SPHINGIDAE (LEPIDOPTERA) WITH DESCRIPTIONS OF THE EAST AFRICAN SPECIES, by R. H. Carcasson. 2nd Edition, 1976. E. W. Classey Ltd., Faringdon, England. 148 p., illus. + 17 plates. Price: \$11.95 (U.S.) paperback.

This publication was originally published in 1968 in the *Journal of the East Africa National History Society and National Museum*, Nairobi, Kenya, and as far as I can see is an unchanged reprint, now in form of a monograph. It therefore contains, of course, again the systematic weaknesses pointed out already by Hodges (1971, The moths of America north of Mexico, fasc. 21). The introduction of the subfamily names "Asemanophorinae" and "Semanophorinae"—although the author himself admits that the correct name of the former should be Smerinthinae—is unfortunate as they are contrary to the rules, notwithstanding the fact that the grouping into two subfamilies is the right thing to be done. The names then should be with Hodges (1971): Sphinginae and Macroglossinae.

In naming his tribes: Ambulicini, Acherontiini, Dilophonotini, Philampelini, and Choerocampini the author tries to keep the connection with Rothschild & Jordan (1903, *Novit. Zool.*, vol. 9, suppl.). Today one would prefer to call them with Hodges (1971): Smerinthini, Sphingini, Dilophonotini, Philampelini, and Macroglossini. The breaking down of the tribes into subtribes is appropriate and even possible rightfully in accordance with the Code of Zoological Nomenclature which admits in article 35 "any supplementary categories required." In North America, however, one usually forms subtribal names on the ending -iti, e.g. Sphingiti instead of Carcasson's "Sphinges."

If the single Hawaiian species (*Tinostoma smaragditi*) taken on p. 7 into the subtribe "Philampeli" is a member of the subfamily "Semanophorinae" at all it is still an unsolved riddle. The palpus has certainly no sensory hairs as found in *Eumorpha* (= *Pholus*). This is now known quite thoroughly after examining more specimens of the species that have come into collections. It may well be that the genus *Tinostoma* (perhaps together with *Sataspes* which also lacks sensory hairs on its palpus) takes a kind of an intermediate position between the two acknowledged subfamilies, at least as far as the labial palpus is concerned.

Interesting and to be commended is the line drawing of the wing pattern of a sphingid (p. 9) and the distributional tables for the tribes and subtribes resp. given in the general part (p. 2-9). They are based for the African species on Carcasson's present work, for the other ones on Rothschild & Jordan (1903).

The main part comprises p. 11-133 and is accompanied by 17 plates of adults (pl. 1-10), genitalia (pl. 11-17), and some immatures on pl. 16. The plates of the adults and immatures are all in black and white halftones that in most cases give a pretty good idea of the appearance of the moths in question. The genitalia are mostly halftones from microscopic slides, sometimes therefore difficult to interpret (alcohol preparations should be used exclusively for such purposes). Some of them are retouched, especially those of females. Overall the photographs are too small, especially of the aedoeagi. Pl. 17 and an unnumbered plate between p. 12 and 13 as well as a single drawing on p. 67 shows genitalia by use of linedrawings. The difference is apparent at once. The costs of publication may have been a hinderance to general use of linedrawings. Certainly in any case all the genitalia on the plates are still preferable to the ones in Rothschild & Jordan.

To go deep into the main part would exceed the scope of this review. Only some remarks should be made: On p. 52 the generic name *Herse* has to be changed to *Agrius*, and on p. 111 the name *Celerio* to *Hyles* for well-known reasons.

Carcasson creates in this work 12 new genera for 29 species and describes 7 new species. For one species a preoccupied name is replaced (*Hippotion griveaudi* for *Hippotion albolineata* Griveaud). There are also four new "subspecies" described

among which at least one, so it seems to me, deserves specific status based on the strong differences of the genitalia, as far as illustrations show (*Polyptychus (andosus) amaniensis*). In another "subspecies" (*Hippotion rosae guichardi*) the illustrations do not bear out what is said in the text. *H. rosae rosae* should be larger than *r. guichardi*, but, in the illustrations it is exactly the opposite. A scaled marker on the photographs would have been useful.

Additions to the general distribution of 3 species have to be made: *Deilephila nerii* add Japan, Hawaii; *Hyles lineata* add Hawaii, Solomon Islands; *Hippotion celerio* add Papuaia, Polynesia (partially).

Hippotion isis is also represented in the Carnegie Museum and labelled "India." It does not seem to be a hybrid, much more it seems to stand in a similar relation to *H. celerio* as *H. swinhoei* to *H. velox*. The wing pattern is as in *H. chloris*, only that the color is uniformly clayish.

The references at the end show that there are really only very few publications available about African sphingids, and only 4 of more recent date for Nigeria, Madagascar, Congo (Brazzaville) and Central and South Africa. With Carcasson's work the whole of Africa is in the moment quite well covered: it also lists and provides information on species not from East Africa. Throughout the whole work are valuable systematic clarifications, e.g., in the dividing of the previously "compound" genus *Polyptychus* into separate entities.

A good and useful glossary follows, and after it is an index that shows where to look for illustrations of species not illustrated here.

There are only very few printing errors (like "HIPPOTRION" on p. 121), as far as I can see. The only one of systematic importance is found on p. 5, line 22 from above, where one has to read "*Asemanophorae*" (italics mine) instead of *Semanophorae*.

To sum it all up: It was a good deed of the publisher to make this worthy work again accessible to the entomological community. It is only in this way that we finally will be able to build up a sufficient knowledge of the Sphingidae of the world.

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