On the typical specimens of Thyretidae (Lepidoptera: Notodontoidea) in the Zoological Museum, Humboldt University, Berlin

by
S. G. KIRIAKOFF
(Ghent)

Dr. H. J. HANNEMANN very kindly sent me, on my request, the typical specimens of forms belonging to the family Thyretidae and deposited in the Zoological Museum of the Humboldt University, Berlin. Most of these forms have been described by E. STRAND, and three by A. SEITZ.

As it is known, HAMPSON (Cat. Lep. Phal., Suppl. I, 1914) would not recognize the forms described by STRAND, although he never examined any of them. His action was vehemently criticized by STRAND, who maintained the validity of his new forms.

I have examined the typical specimens used by STRAND, and I have made some genitalic preparations. The results are briefly described below. I follow the sequence of forms in STRAND's paper (Zoologische Ergebnisse der Expedition des Herrn G. Tessmann nach Süd-Kamerun und Spanisch Guinea, *Arch. f. Naturg.*, 1912, Bd. 78 A, Heft 6).

Meganaclia (*Nacliodes*) *microsippia* Strand

STRAND, l.c.: 183.

The subgenus *Nacliodes* was founded on a trifling difference in the venation: in the forewing, the veins 4, 5 are not stalked, but arise from a point.

The examination of the male genitalia proved, however, that *Meganaclia microsippia* is identical with *Meganaclia minor* Hampson, 1914 (Cat. Lep. Phal., Suppl. I: 61). The latter species was placed by myself in a separate genus *Mesonaclia* (KIRIAKOFF, Les Thyretidae du Musée Royal du Congo Belge, 1953: 21), because of widely different male genitalic structures. Accordingly, both the specific name *minor* Hampson, 1914, and the generic name *Mesonaclia* Kiriakoff, 1953, fall before the names given by STRAND in 1912, viz. *microsippia* and *Nacliodes*. The subgenus *Nacliodes* of STRAND becomes, of course, a genus as the genitalic differences from *Meganaclia* (Aurivillius, 1892) Hampson, 1898, are very important, much more so than the trifling venational difference used by STRAND for his subgenus. The correct name of the species becomes *Nacliodes microsippia* Strand.

There is, in STRAND's description, another point, and a very embarrassing one. STRAND gives the following original locality: Two males, Alen, 11.IX.1906 and 18.IX.1906. The original labels, attached to the typical specimens, read instead: (type) Spanisch Guinea, Benito Gebiet, 16-30.IX.1906, (cotype) (ibid.) 1-15.X. 1906, both collected by G. TESSMANN. Now, there exists, in the Spanish Guinea, a locality called Alum (about 2° N and 10° E), which could stand for Alen. But the collecting data are all wrong. A similar discrepancy is being noted below, under *Melisoides lobata,* and it is possible that it occurs in the case of some other

groups of Lepidoptera studied by STRAND in his paper, and which are not being dealt with here.

Apisa chrysopyga ruficilla Strand

STRAND, l. cit.: 184.

This is not a Thyretid, and belongs to the genus *Anapisa* Kiriakoff, 1952 (*Rev. Zool. Bot. Afr.,* 1952, **46** : 173—178), of the family Arctiidae.

Apisa vitrina Oberthür

STRAND, l. cit.: 186.

For this species the genus *Neophemula* Kiriakoff, 1957 (*Rev. Zool. Bot. Afr.,* 1957, **55** : 282) has been described. STRAND's specimen, labelled Makomo, Benito Geb., 8.X.1906, has blue scaling on the abdomen. In my paper just alluded to, I have also described a Congo race *Neophemula vitrina congoensis* (l. cit.: 283), differing from the nominate form (Cameroons, Gaboon, French Guinea) by some blue scaling on the abdomen, and also by coppery and violet reflections in the wing colouration. These reflections are apparently wanting in the specimen mentioned by STRAND. I think it advisable to maintain, at least for the time being, the race *congoensis*. STRAND's specimen belongs, geographically speaking, to the nominate race. It would appear, then, that the blue scaling on the abdomen is a specific character, as it also exists in the southern race from Angola *Neophemula vitrina angolensis* Kiriakoff, 1957 (*Tijdschr. Entom.,* **100** (1) : 113), although some specimens may lack it, e.g. the typical one of OBERTHÜR.

Metarctia rubicundula Strand

STRAND, l. cit.: 187.

The genitalic structures of STRAND's type proved to be identical with those of *Diakonoffia kivensis* (Dufrane, 1945), described by the present writer in 1953 (Les Thyretidae du Musée Royal du Congo Belge, 1953: 22). They have not been illustrated, and our fig. 1 shows the genitalic structures of STRAND's type. DUFRANE's name becomes accordingly a synonym of *rubicundula* Strand. The species should be correctly referred to as *Diakonoffia rubicundula* (Strand). The "ab. *quadrisignatula*" Strand, p.cit., is an individual variant.

Fig. 1. Male genitalia of *Diakonoffia rubicundula* (Strand).

In my 1957 paper I pointed out (*Bull. Ann. Soc. ent. Belg.,* **93** : 124) that *Diakonoffia kivensis* which was described by DUFRANE after specimens collected in the Kivu region, seemed to occur much more commonly in the western parts of the Belgian Congo than in its "terra typica". The latter becomes now Spanish Guinea, and that explains my remark.

In the same paper (l. cit.: 157) I mentioned a *Bergeria rubicundula* (Strand),

referring to two very worn specimens in the British Museum (Natural History). It now appears that these specimens were wrongly labelled. They actually belong to the genus *Bergeria* Kiriakoff, 1952, although their specific appurtenance remains doubtful till I have another opportunity to examine them.

Metarctia cinereoguttata Strand

STRAND, l. cit.: 189.

STRAND's type in no way differs from *Metarctia cameruna* Hampson, 1914 (Cat. Lep. Phal., Suppl. I : 65), the genitalia also not being different. The name *cinereoguttata* given by STRAND in 1912 must accordingly supersede that given by HAMPSON two years later. The correct name of the species becomes *Hippurarctia cinereoguttata* (Strand, 1912).

Pseudapiconoma preussi ab. *longimaculata* Strand

STRAND, l. cit.: 189, and

Pseudapiconoma flavimacula ab. *elegantissima* Strand

STRAND, l. cit.: 191.

Both these forms, which belong to the genus *Balacra* Walker, are indeed "aberrations", i.e. individual variants, and STRAND's names have accordingly no status in taxonomy.

Pseudoapiconoma flavimacula var. *monotonia* Strand

STRAND, l. cit.: 191.

The genitalic differences between the type of STRAND and typical specimens of *Balacra flavimacula* (Walker) examined previously (e.g. KIRIAKOFF, 1953, l. cit.: 68, plate V, fig. 60) are slender enough: the uncus is faintly concave distally instead of faintly convex, and the cornuti are very large. Considering the general variability of *Balacra flavimacula*, I am not inclined to think there are sufficient reasons for a subspecific recognition of *B. flavimacula* var. *monotonia*.

Melisoides lobata Strand

STRAND, l. cit.: 192—193.

STRAND's genus *Melisoides* seems to represent a valid taxon, as the differences from *Melisa* Walker he lists are sufficient though not striking. Moreover, the female genitalia (only the female of *Melisoides lobata* is known) differ very distinctly from those of *Melisa atavistis* Hampson (described and figured in KIRIAKOFF, *Biol. Jaarb.*, **22**, 1955: 121, pl. IV, fig. 22). The differences found are as follows, viz.: Apophyses posteriores absent; apophyses anteriores well developed (in *Melisa atavistis* the apophyses posteriores are well developed, and the apophyses anteriores very short); sterigma narrow (broad in *Melisa atavistis*); ductus bursae short, broad and asymmetrical (very long in *Melisa atavistis*, with the distal portion slender). Cf. fig. 2.

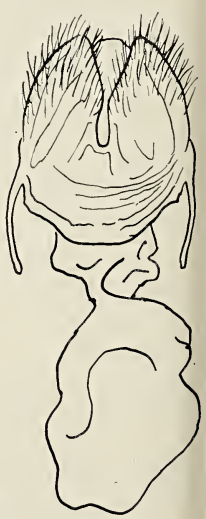

Fig. 2. Female genitalia of *Melisoides lobata* Strand.

Here again there is a discrepancy between the data given by STRAND and those attached to the typical specimen. STRAND says (p. cit.): "♀ Alen, 22.X., ex-larva". The label attached to the type reads "Spanisch Guinea, Benito-Gebiet, 16-31.IX.06. G. TESSMANN".

The three following forms were described by A. SEITZ in Großschmetterlinge der Erde, Bd. XIV, 1926, who, however, credited GAEDE with the authorship. The original labels are, indeed, by the hand of GAEDE, who possibly wrote the description for the Großschmetterlinge. The article Syntomidae was, however, written by SEITZ, who must accordingly be regarded as the author of the names involved.

Thyretes angolensis Seitz

SEITZ, l. cit.: 50.

The genitalia of the typical specimen show no difference whatever with those of *Thyretes monteiroï* Butler, 1876 (cf. KIRIAKOFF, 1953, op. cit.: 16, plate I, fig. 10), so that the synonymy *Thyretes monteiroï* Butler, 1876 = *Eressades flavipunctata* Bethune-Baker, 1911 = *Thyretes angolensis* Seitz, 1926 (errore Gaede, 1926), given in KIRIAKOFF, 1957 (*Bull. Ann. Soc. Roy. ent. Belg.*, 95 : 123) is hereby confirmed.

In the original description, SEITZ mentions (p. cit.) "Angola". The original label bears: "Angola, Quisoll, 23 km von Malange".

Apisa preussi Seitz

SEITZ, l. cit.: 52.

This is not a Thyretid, and belongs to the genus *Anapisa* Kiriakoff, 1952, of the family Arctiidae.

Metarctia lugubris Seitz

SEITZ, l. cit.: 53.

Male genitalia (fig. 3). Uncus short, tapering, weakly downcurved at the extremity. Tegumen rather broad. Valva broad, short and squarish, with a moderately slender apical process, as long as the broad basal part of the valva; sacculus broadly rounded terminally. Penis slightly longer than the costa, slender, faintly S-shaped; proximal portion funnel-shaped. Fultura inferior X-shaped. Saccus short, rounded.

Fig. 3. Male genitalia of *Metarctia* (*Metarctia*) *lugubris* Seitz.

The quite inadequate description by SEITZ (p.cit.) may be completed as follows: Antennae bipectinate, yellowish. Dorsum of the thorax dark chocolate-brown. Abdomen paler, and suffused with ochraceous. Forewing dark chocolate-grey, paler and tinged with pinkish-orange in the DC-region; basal third and a diffuse DC-mark dark chocolate-brown. Hindwing pale pinkish-ochreous,

with the anal area and a diffuse subterminal band chocolate-coloured. Length of the forewing 12 mm. "Ost-Afrika: Ukinga-Berge, V.1899, GOETZE".

Metarctia lugubris is nearly related to a series of forms inhabiting the mountainous regions of Central and East Africa, e.g. *Metarctia fletcheri* Kiriakoff, *M. carmel* Kiriakoff, *M. flora* Kiriakoff etc., all of which have a more or less well developed terminal process of the valva. It belongs to the nominate subgenus, and should be called *Metarctia* (*Metarctia*) *lugubris* Seitz.

Silveira, A., J. F. Carbonell Bruhn, C. Múnez E. Valdés, Investigaciones sobre Acridoideos del Uruguaya. Primera contribucion. Montevideo, Avril 1958; 485 pp., 312 figs., 29 maps.

The publication of this book, by the Uruguayan Ministry of Agriculture, was made possible by a grant from the Rockefeller Foundation and constitutes the first contribution to the study of the injurious grasshoppers of Uruguay. This country suffers much damage caused by the "tucuras" or grasshoppers, and did especially so in the years 1953 and 1954, when the plague was so severe that it surpassed the entire damage done during the past fifty years.

The knowledge of the Orthoptera of this country is still insufficient, and only sparsely detailed descriptions in the very scarce literature can be consulted. The above mentioned book will fill up the gap, and is the first of an intended series. It is divided into several sections and chapters, dealing with general systematics, morphology, cytology, geographical distribution, variations caused by differences in population-density, natural enemies and control.

All these different chapters are well written, profusely illustrated by good figures and photographs, and contain interesting data. The keys to subfamilies and species with figures of the different parts of the external anatomy greatly facilitate determination. The chapter devoted to cytology states that in Acridoidea (with the exception of the subfamilies Pamphaginae and Pyrgomorphinae) there is a constant number of 23 chromosomes in the male, and 24 in the female. According to HUXLEY variation in these numbers may be the cause of the origin of new species or groups of species.

The total number of species dealt with is 32, belonging to 3 subfamilies and 25 genera. A careful study was made of the vegetation (list of plants), location and altitude of 13 "zones" (among them permanently infested ones). Several of these zones were photographed to give an idea of the different landscapes and environments. The study of these areas revealed that there is a seasonal difference in the proportion of males and females and in the population-density. These data are recorded in tables. The natural enemies are not only insects but also spiders, mites, different worms, birds and reptiles. Most of them are dealt with in some detail. The results of control measures by means of chemical products are shown by tables and statistics. It was found that the different species are not equally susceptible to the different chemical products. The main part of the book (beginning on p. 75) deals with every single species and its synonyms, and gives Spanish translations of original descriptions (where necessary), very good photographs, figures, and even some coloured plates. Some of the species, e.g. *Scyllinops bruneri* Rehn, are dealt with very extensively, occupying 33 pages.

On the whole it is a very useful publication, well illustrated, full of systematical and biological notes, indispensible for all workers on Orthoptera, especially for those interested in the grasshoppers of South America. The names of the authors and collaborators are a guarantee for the high scientific standard of this work. My congratulations to all of them, and I hope that this publication will soon be followed by a second. — C. WILLEMSE.