

Milliped Miscellany II

by

C. A. W. JEEKEL

Oniscodesmidae.

Doratodesmus armatus (Pocock).

A study of the type specimens, which are preserved in the Zoological Museum at Amsterdam, has revealed a considerable confusion in literature regarding the identity of this species and the genus of which it is the type.

D. armatus was originally described from Bogor (formerly Buitenzorg) and Tjibodas, West Java by POCOCK in 1894 and redescribed after a female specimen from South Sumatra by ATTEMS in 1930.

However, a comparison of the two descriptions and the accompanying drawings immediately shows that in reality two species are involved, and that the reference of the Sumatran form to *armatus* was erroneous. The latter belongs to an unnamed species which may be easily distinguished from *armatus* by its much smaller size, different colour and the larger proportions and more vertical position of the middorsal processes of the metasomites. A further consideration of the taxonomic position of this species has to wait, pending the discovery of the male.

Unfortunately, the diagnosis of *D. armatus* in the Tierreich, Vol. 70 also is based on the Sumatran species, a condition which, together with an inaccuracy in the original description of POCOCK, may have led CHAMBERLIN to redescribe *D. armatus* under the name of *Hoplitesmus enoplus* in 1945. The differential characters mentioned by CHAMBERLIN have apparently been derived from the description of "*armatus*" Attems and are mainly of specific value. The only feature of generic importance used for the distinction of *Hoplitesmus* from *Doratodesmus* has been the number of segments of the male, which was 19 in the first and presumed to be 20 in the second genus. Although POCOCK has not been pertinent as regards the number of segments of *Doratodesmus*, certain statements in his description might lead to the inference that this number was 20 in both sexes. As a matter of fact, however, the male types of *D. armatus* have 19, the females 20 segments ! Actual comparison of the type of *Hoplitesmus enoplus* Chamb., kindly submitted to me for study by Dr W. J. GERTSCH of the New York Museum, with those of *D. armatus* (Poc.) also has shown the specific identity of the two.

The resulting synonymy is now as follows :

Doratodesmus Cook.

1894 *Doratonotus* Pocock, in WEBER, Ergebn. Reise Niederl. O. Ind. 3 : 370 (preoccupied).

1895 *Doratodesmus* Cook, Ann. N. York Ac. 9 : 4.

1940 *D. Attems*, Tierreich 70 : 354.

1945 *Hoplitesmus* Chamberlin, Am. Mus. Nov. 1282 : 8.

Type species: *D. armatus* (Poc.).

Doratodesmus armatus (Pocock).

1894 *Doratonotus a.* Pocock, l.c.: 371, pl. 22, fig. 11 (1).

1945 *Hoplitesmus ennoplus* Chamberlin, l.c.: 8, fig. 41—44 (2).

Not:

1930 *Doratodesmus armatus* Attems, *Arch. Hydrob. Suppl.* 8 :147, fig. 32—40.

1940 *D. a.* Attems, l.c.: 355, fig. 498—500.

Previous records: W. Java: Bogor, Tjibodas (1), Puntjak (2).

New records: W. Java: Tjibodas, 20.VIII.1922, 1 ♀ (Coll. Th. MORTENSEN, Mus. Copenhagen); Tjibodas, 1400 m., 19.III.1950, 4 ♂♂, 2 ♀♀, 1 juv. ♂; Ibid., 18.V.1950, 1 ♂, 1 ♀; Tjibodas-Tjibeureum, 1700—1800 m., 18.II.1950, 2 ♀♀, 1 juv. ♀; Telaga Warna, 22.I.1950, 1 ♂, 1 ♀; Ibid., 9.VII.1950, 1 ♀; Mt. Gede-Pangerango, Tjibodas, X.1948, 6 ♂♂, 7 ♀♀, 1 juv. ♂, 1 juv. ♀ (Coll. L. J. M. BUTOT, A. M. NEERVOORT, Mus. Bogor).

The gonopod-drawings given by POCOCK are too small to be of any use even for the recognition of the species, those of CHAMBERLIN were drawn in situ and leave us ignorant about the course of the spermal channel. Therefore a larger drawing is given here, made after a male from Mt. Gede-Pangerango (fig. 1).

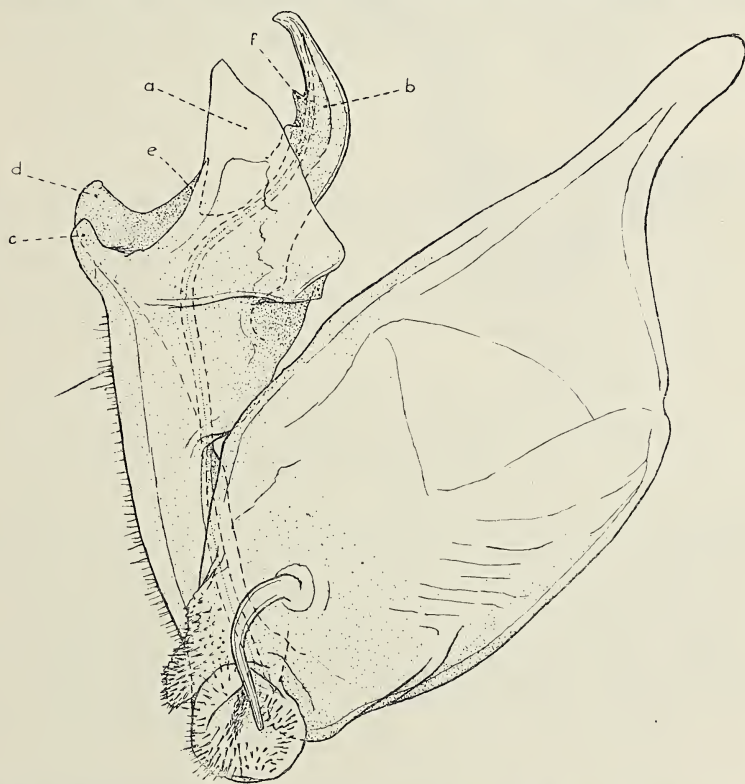


Fig. 1. *Doratodesmus armatus* (Poc.), right gonopod of male, medial view.

The coxa is very large, hairless; its lateral surface is somewhat scabrous. It has a hyaline, medio-terminal lappet which is covered with hairlike papillae or scales. The telopodite consists of an elongate praefemur, which is clubshaped at the base, and at the opening of the spermal channel and at the latero-posterior surface is

rather densely set with short setae, with only a few longer ones near the distal end. The basal opening of the spermal channel is very wide; the channel itself runs along the medio-anterior side of the praefemur to curve towards the lateral side at the base of the acropodite. On the lateral side the end of the praefemur is demarcated by a chitinous ridge. In the acropodite it is not possible to detect any articular subdivision. It consists of a triangular lappet (a) at the medial side, a latero-anterior solaenomerite (b) and a pair of smaller lobes (c and d) at the posterior side. The solaenomerite is slightly curved in a posterior direction; it is connected with the middle of the medial lappet and with the latero-posterior lobe by a lamella which has two small thin triangular lappets (e and f). The spermal channel runs at the lateral side of the acropodite and ends at the terminal point of the solaenomerite.

Nothing is known of the gonopods of the other species referred to *Doratodesmus*, viz. *beccarii* (Silv.) from Sumatra, *cavernicola* (Sincl.) from Malacca, and *muralis* Cook and *vestitus* Cook from Java, nor has any of the authors concerned made any statements as regards the number of segments of these species, so that at present it is not possible to draw any positive conclusion on their relationships.

Cryptodesmidae.

Trichopeltis bicolor (Pocock).

The gonopod-drawings given by POCK (l.c.: pl. 21, fig. 5) are small and rough outlines and therefore very difficult to interpret. A study of the types and other material of this species preserved in the Amsterdam Museum makes it possible to elucidate some questionable points relating the structure of the copulatory apparatus. The drawing presented herewith was made after a male specimen from Gunung Singgalang (fig. 2).

The coxa is rather short and broad, hairless, and has a strong, rounded, latero-distally projecting lobe. The lateral side is more or less scabrous. The telopodite is rather compact and lacks a distinct articular subdivision. Probably the praefemur comprises two fifth of the entire length of the telopodite and is characterised by the presence of setae on the medial and posterior side. The basal opening of the spermal channel is wide, but medially covered by a thin, setiferous lamella arising from the posterior side. The distal portion of the telopodite is rather complicated, it ends in five distinct processes. At the medio-posterior side there is a rather large fringed process (a), at the latero-posterior side a triangular process (b) the medial side of which is also fringed. The spermal channel runs along the medial side of the acropodite and ends in a rather short solaenomerite (c). The distal part of the channel is more or less concealed when seen from the medial side by a series of fringes, one of which is much longer than the others. Laterad and distad of the solaenomerite there are two branches (d and e), the former of which is the longest.

In addition to the type specimens, which came from W. Sumatra, Singkarah, the Amsterdam Museum has the following material of *T. bicolor*:

W. Sumatra: Gunung Singgalang, 1800 m., 1925, 1 ♂, 1 ♀; Ibid., VII.1925, 1 ♂, 3 ♀ ♀; Anai Cleft, 500 m., 1926, 1 ♀ (Coll. E. JACOBSON).

Neither the types nor the other specimens under report show the colouring as it was described by POCOCK, all of them being of a uniform dirty brownish colour. It may be possible therefore, that the pale colour of the lateral keels of the 6th, 8th, 11th, 14th and 16th segments as against the greyish brown colour of the others of the type specimens at the time the species was described was caused by a difference in speed by which the colour alteration post mortem took place. The colour might have been entirely pale in the living specimens.

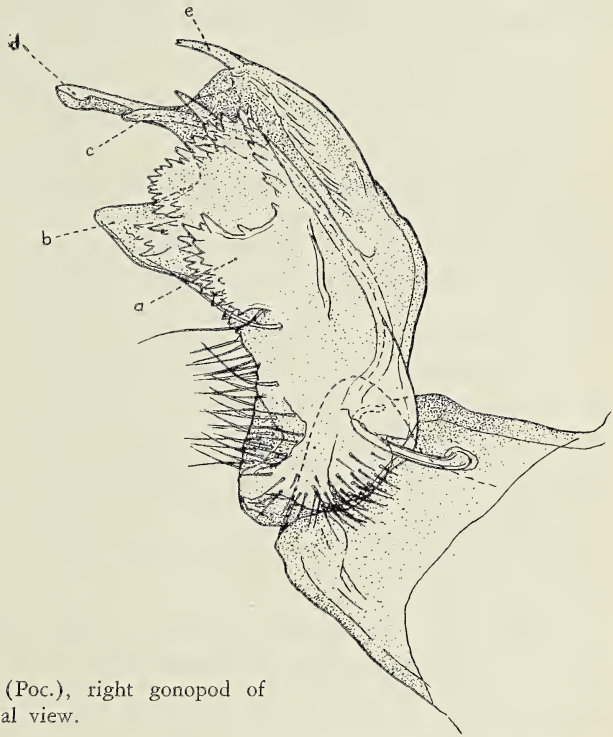


Fig. 2. *Trichopeltis bicolor* (Poc.), right gonopod of male, medial view.

Apart of *bicolor*, which is the type species of *Trichopeltis* Poc., this genus has three other forms, occurring from the Eastern Himalayas to Birma, viz. *T. doriae* Poc., *T. feae* Poc. and *T. watsoni* Poc., which have a somewhat more simple gonopod structure. For the latter COOK (*Brandtia* 5 : 24) has established a genus *Otodesmus*, the creation of which, however, seems to be somewhat premature, even though the three species by evidence of the gonopods are doubtlessly more closely related to each other than to *bicolor*.

Ophrydesmus Cook.

On my request, my friend and colleague R. L. HOFFMAN, Clifton Forge (Va.), U.S.A., studied the type specimen of *O. gede* Cook (l.c. 5 : 24) preserved in the Washington Museum and kindly informed me (i.l. 9.III.1953) that he found it identical with *Phenacoporus weberi* (Poc.) as described and illustrated by ATTEMS in the *Tierreich* 70 : 242, fig. 344—345. Since the drawings given by

ATTEMS are in full accordance with the types of *weberi* as preserved in the Amsterdam Museum, there can be little doubt as to the specific identity of *O. gede* and *P. weberi*. With both species being the types of their respective genera, the, on account of the incrassate femur of the third leg of the male in both genera, long suspected identity of *Ophrydesmus* Cook (l.c.: 23) and *Phenacoporus* Attems (1914, *Arch. f. Naturg.* 80A (4): 163, 165) has now been confirmed.

Whether *weberi* and *gede* are also subspecifically identical remains to be seen. There are notable differences in the dimensions of the two, which may indicate a geographical variation at least in this respect.

Caspiopetalidae.

Bollmania Silvestri.

While doing some bibliographical work I was struck by the resemblance of the gonopod-drawings of the species of the Lysipetaloid genus *Bollmania* as illustrated by LOHMANDER and those given by ATTEMS for a species described as *Apatidea kobalana* and referred to the Cambalidae. Actual comparison of the descriptions and drawing has convinced me of the generic identity of *Apatidea* and *Bollmania*, *kobalana* being an additional species of the latter genus.

Apparently ATTEMS when he described *Apatidea* was ignorant of LOHMANDER's papers on Central Asian millipeds, and overlooked the small spinnerets of the anal segment characteristic for the Chordeumida, but even so it is quite unintelligible that he did not recognise the Lysipetaloid characters of his species.

The synonymy of the genus and its species is now as follows:

Bollmania Silvestri.

1896 *B. Silvestri*, *Ann. Mus. Genova* (2) 16 : 150.

1896 *Trypostrephon* Cook, l.c. 2 : 5.

1931 *Caspiopetalum* Lohmander, *Ark. Zool.* 22B (1): 1.

1933 *B.* Lohmander, *Ark. Zool.* 25A (6): 44.

1936 *Apatidea* Attems, *Mem. Ind. Mus.* 11 : 249.

Type species: *B. orientalis* (Silv.).

The name of *Trypostrephon* Cook was proposed as a substitute for *Bollmania* Silv. because the name of C. H. BOLLMAN was already used in 1889 for a genus of fishes by JORDAN (*Proc. U.S. Nat. Mus.* 12 : 164).

However, the generic name created by this author was spelled by him with a double n, thus *Bollmannia*, and differs therefore in one letter. Unless the name of JORDAN is emended, on account of it being formed incorrectly, the name of *Bollmania* Silv. remains valid.

Bollmania orientalis (Silvestri).

1895 *Callipus o.* Silvestri, *Zool. Anz.* 58 : 417 (1).

1896 *B. o.* Silvestri, l.c.: 150.

1896 *Trypostrephon o.* Cook, l.c.: 5.

1931 *Caspiopetalum schestoperovi* Lohmander, l.c.: 5, fig. 1.

1933 *B. o.* Lohmander, l.c.: 33, fig. 18—21, 23—27, 31—41 (2).

Distribution: Transcaspia (1, 2).

Bollmania orientalis f. *ajderensis* Lohmander.

1933 *B. o. a.* Lohmander, l.c.: 45, fig. 30 (1).

Distribution: Transcaspia (1).

Bollmania serrata (Lohmander).

1931 *Caspiopetalum s.* Lohmander, l.c.: 5, fig. 3.

1933 *B. s.* Lohmander, l.c.: 47, fig. 42—44 (1).

Distribution: Buchara (1).

Bollmania nodifrons (Lohmander).

1931 *Caspiopetalum n.* Lohmander, l.c.: 5, fig. 2.

1933 *B. n.* Lohmander, l.c.: 49, fig. 22, 28—29, 45—47 (1).

Distribution: Buchara (1).

Bollmania kobalana (Attems).

1936 *Apatidea k.* Attems, l.c.: 249, fig. 54—56 (1).

Distribution: Punjab (1).

Amsterdam, Zoölogisch Museum, Afd. Entomologie, Zeeburgerdijk 21.

Benno, P., Echte Wespen en aanverwante families. Vliesvleugelige Insecten — Hymenoptera; III. Angeldragers (Aculeaten); Wetenschappelijke Mededelingen Kon. Ned. Natuurhist. Vereniging No. 15, 15 blz., 32 fig., Dec. 1954; prijs f 1.45.

In deze aflevering van de Mededelingen van de K.N.N.V., de tweede over Hymenoptera, worden de volgende families en subfamilies behandeld: Vespidae: Vespinae, Polistinae, Eumeninae; Tiphidae: Tiphinae, Methocinae, Myrmosinae; Mutillidae; Sapygidae; Chrysididae; Cleptidae.

Van ieder van deze families, resp. subfamilies, worden determineertabellen gegeven voor de geslachten en ondergeslachten, die in Nederland voorkomen. Bij elk van deze groepen worden de Nederlandse soorten opgesomd, zodat een volledig overzicht verkregen wordt van de betreffende Nederlandse fauna. De tabellen zijn kort, maar duidelijk. De talrijke figuren zijn in de ware zin des woords een illustratie van de tabellen. Zij zijn over het algemeen zeer goed, vooral de lijntekeningen.

De tamelijk uitvoerige biologische opgaven bij ieder geslacht maken het mogelijk een goed overzicht te krijgen van de levenswijze van de verschillende groepen.

Deze aflevering kan als goed geslaagd beschouwd worden en kan aan ieder, die iets meer over deze families wil weten, zeer zeker aanbevolen worden.

Te bestellen bij de heer A. C. HAZEVOET, Vogelenzangstraat 191, Amsterdam-W., postrekening 13028 ten name van de Administrateur van de K.N.N.V.-uitgaven. — J. G. BETREM.

Dagpauwoog als voedsel van Vliegenvanger. Op 15 Augustus 1954 zag ik, dat een Vliegenvanger zijn jong voerde met twee grote dagpauwogen. Na de eerste vlinder kreeg het jong vijf minuten rust. Deze twee grote vlinders werden door het jong, dat op een takje zat, met vleugel en al verzvolgen. Het dier was reeds vliegvlug, maar nog vrij donzig. De vleugels van de vlinder staken uit zijn bek. Ook nog een andere kleinere vlinder volgde dezelfde weg.

Twee jaar geleden vond ik de vleugels van de dagpauwogen bij tientallen in mijn tuin. De oude vogels zijn nl. wat handiger en laten uit ervaring de vleugels er af, doch het jong werkte ze vlot naar binnen. Blijkbaar heeft het een heel ruim keelgat.

De Hoornaar heeft het gemakkelijker. Deze knipt als een ervaren chirurg met zijn „schaar“ in een paar seconden (!) direct de vleugels van de grote vlinders. Ik heb dit bijv. gezien bij atalanta's in de tuin alhier. Hij sleept dan het lijf in de vlucht mee naar het nest.

G. J. W. KETS, Rijkssstraatweg D 44, Drempt, post Doesburg.