

X On the generic status of Strongylosoma luxuriosum Silvestri 1894  
 from New Guinea (Diplopoda, Polydesmida, Strongylosomidae) X  
 by  
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In a paper "Chilopodi e Diplopodi della Papuasias" SILVESTRI in 1894 described an important collection of Myriapoda from New Guinea which contained nine new species of the family Strongylosomidae. Unfortunately, these species, which have been referred to *Strongylosoma* s.l. by their author, were described rather inadequately and, indeed like nearly all the other Diplopoda named in that paper, have figured among the species incertae sedis ever since.

Three of them, being based on female specimens, probably will be doubtful until the day new collections from their type locality are studied. The position of the six others can easily be cleared by a re-examination of the type material.

While engaged in a revision of *Akamptogonus* Attems, a Strongylosomid genus well represented in New Guinea, I became interested in the identity of these dubious species, in particular of the two which reportedly were having a femoral tubercle in the first pair of legs of the male, one of the more important characters which separates the species of *Akamptogonus* from the other New Guinea Strongylosomidae.

Type material of these two species was kindly submitted to me by Dr F. CAPRA of the Genoa Museum and actual study has revealed that one of them, namely *Strongylosoma maculatum* Silv., indeed is referable to *Akamptogonus* as defined by ATTEMS. The other one, *S. luxuriosum* Silv., strangely enough proved to be a member of *Hoplatessara* Verhoeff, a genus up to now known only from the Australian mainland.

The exact generic position of *maculatum* will be discussed in connection with the forthcoming revision of *Akamptogonus*, some additional information on *luxuriosum* is given here.

### *Hoplatessara luxuriosum* (Silv.)

1894 *Strongylosoma l.* Silvestri, *Ann. Mus. Genova* 34 : 643.

1937 *Antichiropus l.* Attems, *Tierreich* 68 : 271.

The original diagnosis runs as follows:

"Rufum, margine postico segmentorum nigro. Antennae latitudine corporis longiores, articulo secundo maximo. Segmentum primum subtrapezoideum lateribus curvatis; segmentum ultimum sat longum, apice subacuto; segmenta coetera carinis parvis. Pedes hirsuti, longi.

♂. Pedes primi paris incrassati, uncinati, articulo tertio crassiore, processu coniforme intus instructo; processus laminaris segmenti quinti subquadratus et spissus; pedes coeteri articulo ultimo setis obsesse; pedes copulativi compositi; a basi processus tres oriuntur, inter quos brevior in ramis duobus ensiformibus, aequalibus partitus, coeteri ambo summa parte dilatata, sed alter magis et margine superiore dextro externo serratim dentato, alter apice in processu arcuato, acuto, longiore et processu laminari inciso partito.

Long. corp. mm. 27; lat. corp. mm. 4.

Hab. Nova Guinea: Sorong (L. M. D'Albertis)."

The tube which was sent to me contained the head and the last ten body-segments of a cotype male, as well as a folded piece of paper with the gonopods and the first pair of legs of the male which obviously has been studied by SILVESTRI. The telopodite of the left gonopod I have mounted in balsam. The following description is based upon this material.

**C o l o u r :** dark reddish brown. The head, the antennae and the waist and the posterior margin of the bodysegments very dark, almost black. Venter and sternites pale reddish brown. Legs brownish yellow.

**W i d t h :** 3.4 mm.

**H e a d a n d a n t e n n a e :** Labrum moderately emarginate, tridentate. Clypeus rather weakly convex, rather strongly impressed towards the labrum. Lateral sides hardly concave. Surface of headplate up to and inclusive the frontal region rather densely to sparsely marked with rather coarse setiferous punctures. Setae short to moderately long. Frons faintly demarcated from vertex. Antennal sockets separated by  $1\frac{1}{3}$  times the diameter of one, or by about  $\frac{3}{4}$  of the length of the 2nd joint. Head laterad of the sockets rather strongly inflated. Vertex rather weakly convex, smooth and hairless (?), the vertigial sulcus moderately impressed, not reaching the upper level of the antennal sockets. Antennae of moderate length and width, rather densely to densely setiferous. The joints of subequal width, from the 2nd to the 6th gradually decreasing in length, the 6th about  $\frac{3}{4}$  of the 2nd.

**B o d y s e g m e n t s :** rather weakly constricted by a rather narrow waist, which in its dorsal and latero-dorsal part is finely longitudinally striate. Prosomites somewhat dulled by fine cellular structure. Metatergites smooth and shining, hairless. Transverse furrow sharply, but not very deeply impressed, ending laterally near or at the dorsal furrow of the lateral keels. Furrow on 18th segment weakly developed, on the 19th segment missing. Sides smooth, no pleural keels (anterior segments?).

**L a t e r a l k e e l s :** (fig. 1 and 2) rather weakly developed, laterally widely rounded. Poreless keels with a small posterior angle. Poriferous keels posteriorly rounded, more angular in a few posterior segments and slightly produced behind the posterior margin in the 18th segment. Poriferous keels dorsoventrally much thicker than the poreless ones. Dorsal furrow well developed, ending near the waist. Keels of the 19th segment obsolete, represented only by furrows on the posterior half. Pores in a slight excavation.

**S t e r n i t e s a n d l e g s :** Sternites about  $1\frac{1}{2}$  times as long as broad, rather densely set with hairs of moderate length. Cross impressions well developed, rather wide. Legs of the first pair incrassate, the femora with a well developed ventral femoral process, tarsi with dense brushes. Legs from the 10th segment onwards of moderate length, especially the praefemur somewhat incrassate. Length of joints:  $1 < 5 = 4 < 2 < 6 < 3$ . The 5th about  $\frac{3}{4}$  of the 6th, the 6th about  $\frac{2}{3}$  of the 3rd. All joints moderately setiferous all around, rather densely on the ventral surface. Tarsi without brushes.

**A n a l s e g m e n t :** (fig. 3) Tail broad at its base, the sides rather strongly and slightly convexly converging, the end rather narrowly truncate and somewhat emarginate. Setiferous tubercles minute. Underside of tail somewhat concave. Valves smooth, with rather low and narrow marginal rims. Scale triangular, the

end rounded, the sides slightly convex. Setae on minute tubercles which do not surpass the margin.

**Gonopods:** (fig. 4) Coxa rather robust, with a bent towards the posterior direction in the middle. Together with its moderately developed tracheal stalk the coxa has almost the same length as the acropodite. Anterior side of the distal half of the coxa rather densely set with hairs. Praefemur short, laterally demarcated from the acropodite, its longitudinal axis making an angle with the axis of the acropodite. In the acropodite the femoral part seems to be almost completely reduced. At the base, at the medio-posterior side and posteriorly of the course of the spermal channel, arises the tibiotarsus (t) which is deeply subdivided into two lanceolate processes of equal length. The posterior branch has an undulate structure in its distal quarter, the anterior branch (of which in the drawing only the tip is visible) in its distal half. At the anterior side of the base of the acropodite, anteriorly of the course of the spermal channel arises the femoral process (f) which is strongly developed and transversely flattened. Before the distal widening it has a constriction. The end has some notches. The strong solaenomerite (s) is fused basally with the femoral process and arises thus from the latter at the latero-posterior side. It is also more or less transversely flat-

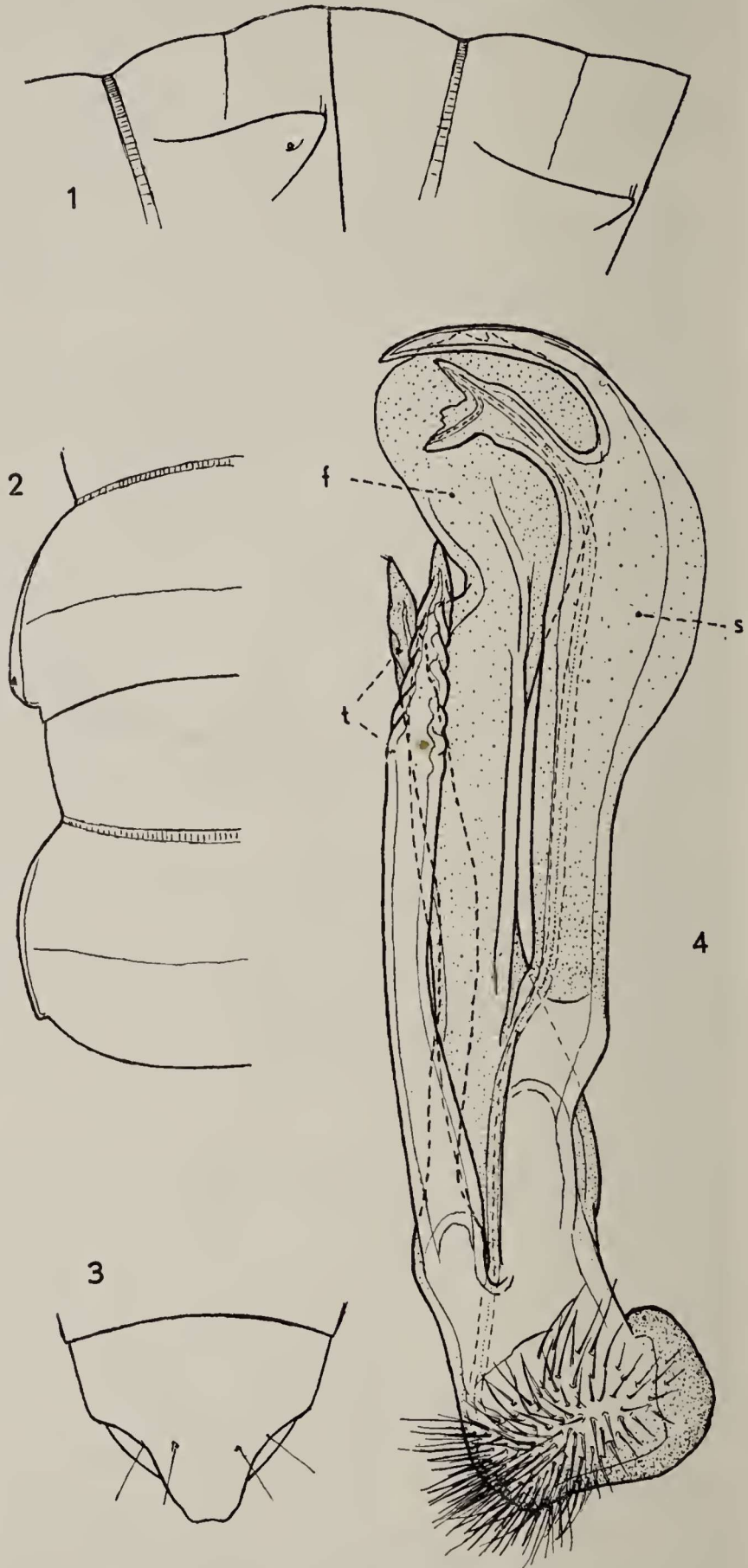


Fig. 1. *Hoplatessara luxuriosum* (Silv.), dorsal portion of the 10th and 11th segment of a cotype ♂, from the left side. — Fig. 2. Id., left side of the 10th and 11th segment of a cotype ♂, dorsal view. — Fig. 3. Id., anal segment of a cotype ♂, dorsal view. — Fig. 4. Id., telopodite of left gonopod of a cotype ♂, posterior view; f: femoral process; s: solaenomerite; t: tibiotarsus.

tened with the lateral side laminate in the middle. At the end it is divided into two branches of unequal length which are directed towards the medial side. It is not surpassed by the femoral process. The spermal channel runs along the medial side of the base of the acropodite, between the bases of the tibiotarsus and the femoral process, along the anterior surface of the solaenomerite towards its proximal branch. At the end it makes a loop towards the small distal lobe, but turns proximad to end on the proximal one.

Among the species of *Hoplatessara*, *luxuriosum* comes nearest to *musgravei* Verh. 1928, the type species of the genus, from New South Wales, *clavigera* Verh. 1928, probably also from New South Wales, and *pugionum* Verh. 1941, from Victoria. This group is characterised by the peculiar, more or less developed undulate structure at the end of one or both of the branches of the tibiotarsus.

The four species may be separated with the aid of the following key.

1. Solaenomerite not surpassed by the femoral process. It consists at the distal end of two unequal branches, of which the proximal one contains the spermal channel. Tibiotarsal branches of subequal length, both with undulate structure ..... *H. luxuriosum*

— Solaenomerite considerably surpassed by the femoral process, the end undivided. Branches of the tibiotarsus more or less distinctly of unequal size ..... 2

2. One of the tibiotarsal branches about 1½ times as long as the other. Femoral process surpassing the solaenomerite by about the length of the shortest branch of the tibiotarsus ..... *H. clavigera*

— Tibiotarsal branches differing much less in size. Femoral process surpassing the solaenomerite by much less than the length of the shortest branch of the tibiotarsus ..... 3

3. Posterior branch of tibiotarsus without undulate structure, anterior branch undulate only near the distal end ..... *H. musgravei*

— Posterior branch of tibiotarsus undulate in the distal half ... *H. pugionum*

The morphological terms of tibiotarsus and femoral process used here need some elucidation in as much as they are attributed in a sense which is reverse to that of VERHOEFF.

As a result of a comparison of various genera belonging to the group of *Australiosoma* Brölemann, of which *Hoplatessara* is one, I have come to the conclusion that the branches arising posteriorly of the course of the spermal channel are to be considered as tibiotarsus, and the one which arises anteriorly of this course as a femoral process. Curiously enough VERHOEFF has done the same in his genera *Rhopalowales* and *Myallosoma*, but in *Hoplatessara* he has called tibiotarsus what can be nothing else but the homologon of the femoral process in *Rhopalowales*, and femoral processes or, later, parsolaenomerites what must be a deeply subdivided tibiotarsus !

The record of a species of *Hoplatessara* from the Northwestern part of New Guinea seems doubtful to me. The relationship of the faunae of New Guinea and Australia may be well established from a general point of view, it is certainly not distinct in the family Strongylosomidae. Indeed, the New Guinea species of *Akamptogonus* have their nearest relatives on the Australian continent, but even so their relationship to these Australian forms seems rather remote. The

other *Strongylosomidae* occurring in New Guinea belong to a group not found in Australia. An error in the labelling of *luxuriosum* seems not impossible, since its collector, D'ALBERTIS, also visited the Northern part of Queensland.

## X Trekvinders in 1955 X

door

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(Zestiende jaarverslag)

De winter van 1954—1955 begon met een te warme decembermaand, maar januari en februari brachten veel vorst en sneeuw. Het voorjaar was koud en laat. De temperatuur van maart was 3° beneden normaal en tot de 22ste hadden we bijna elke dag vorst. Zelfs op de laatste dag van deze maand noteerde De Bilt nog een minimumtemperatuur van —4°. April was zonnig en droog met verschillende mooie dagen, maar ook met perioden met koude noordoostenwind en nachtvorsten. Mei was koud en nat, maar het slot ervan was goed. Juni was op een paar dagen aan het begin en aan het einde na vrij koud. Juli begon met hetzelfde onaangename weer, veel bewolking en fris, maar tegen het eind van de eerste week trad een duidelijke verbetering in en de rest van de maand bracht bijna steeds mooi weer met weinig regen. Augustus was warm en droog, een prachtige vakantiemaand. September bracht vrij veel regen, maar had ook tamelijk veel mooie dagen met een vrijwel normale temperatuur. Oktober was in het begin goed, maar de rest van de maand viel er veel regen en was de temperatuur gemiddeld iets te laag. Tegen het eind van de maand traden de eerste nachtvorsten op. November was in het begin vrij fris, maar daarna zacht. Op 6.XI werd in Zuid-Limburg een temperatuur van 20,4° gemeten, de volgende dag op een paar plaatsen in het land zelfs 21°, een record voor deze maand. Daarna daalde de thermometer echter om tegen het midden van de maand een normale hoogte te bereiken. De rest van november was vrij fris met soms nachtvorsten.

Dat het koude en late voorjaar de komst van de migranten ongunstig beïnvloed heeft, is vanzelfsprekend. De mooie zomer heeft echter weer veel goed gemaakt, tenminste bij onze gewoonste trekkers. Wat de inheemse dagvlinders betreft, die als contrôlesoorten kunnen dienen, de meeste waren matig of zelfs zwak vertegenwoordigd (*Papilio machaon*, *Pieris napi*, *Polyommatus icarus*, *Coenonympha pamphilus*). *Aglais urticae* was in de herfst gewoon, *Nymphalis io* vloog goed (er waren ook weer exemplaren van een tweede generatie), *Lasiommata megera* zeer goed, evenals de herfstgeneratie van *Pieris rapae*.

Bruikbare gegevens werden door 124 waarnemers ingestuurd. Nog eens moet ik er op aandringen toch vooral nauwkeurig te noteren: juiste data met aantallen, niet maar een paar algemene opmerkingen maken, waar we weinig aan hebben. Voor de verschillende soorten kan het volgende verslag samengesteld worden.

1. *Pieris brassicae* L. Van de tweede generatie waren in augustus zoveel exemplaren aanwezig, dat het duidelijk was, dat er trek plaats gevonden moest hebben. Op 11.VIII vond MARQUART te Ouddorp in de vloedlijn over een afstand van ongeveer 15 m meer dan 30 exemplaren, die alle verdronken waren. 12 augustus waren op het strand te Noordwijk overal dode *brassicae*'s aanwezig