

A NEW SPECIES OF *PSEUDOXENUS* SAUNDERS,
1872, AND A NEW RECORD OF *MYRMECOLAX*
INCAUTUS OLIVEIRA & KOGAN, 1959
(Strepsiptera, Insecta)*

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(With 16 text-figures)

In this paper a new species of *Pseudoxenus* Saunders, 1872 (*Stylopidae* Kirby, 1813) is described and, based on a recently collected male exemplar we complement the 1959 study of *Myrmecolax incautus* Oliveira & Kogan, 1959 (*Myrmecolacidae* Pierce, 1909, which was described from a heavily damaged specimen.

***Pseudoxenus inclusus* sp. n.**

(Figs. 1-6)

Female — Cephalothorax (fig. 1) pale brown at base, a little darker in the median thoracic region; broader than long, constricted at base. Clypeus rounded in front and quite evident. Mandibles (fig. 2) one-toothed, the tooth sharp and straight. Mouth-opening conspicuous. Cephalothoracic membrane very narrow, slightly rounded anteriorly, not reaching the lateral borders of the cephalothorax. Thoracic spiracles very conspicuous, placed about the 2/3 of the distance between the base of the cephalothorax and the median line of the cephalothoracic membrane; they are ventrally placed in a lateral groove which arises beyond the cephalic limits. Two other short lateral grooves are present near the base of the thorax.

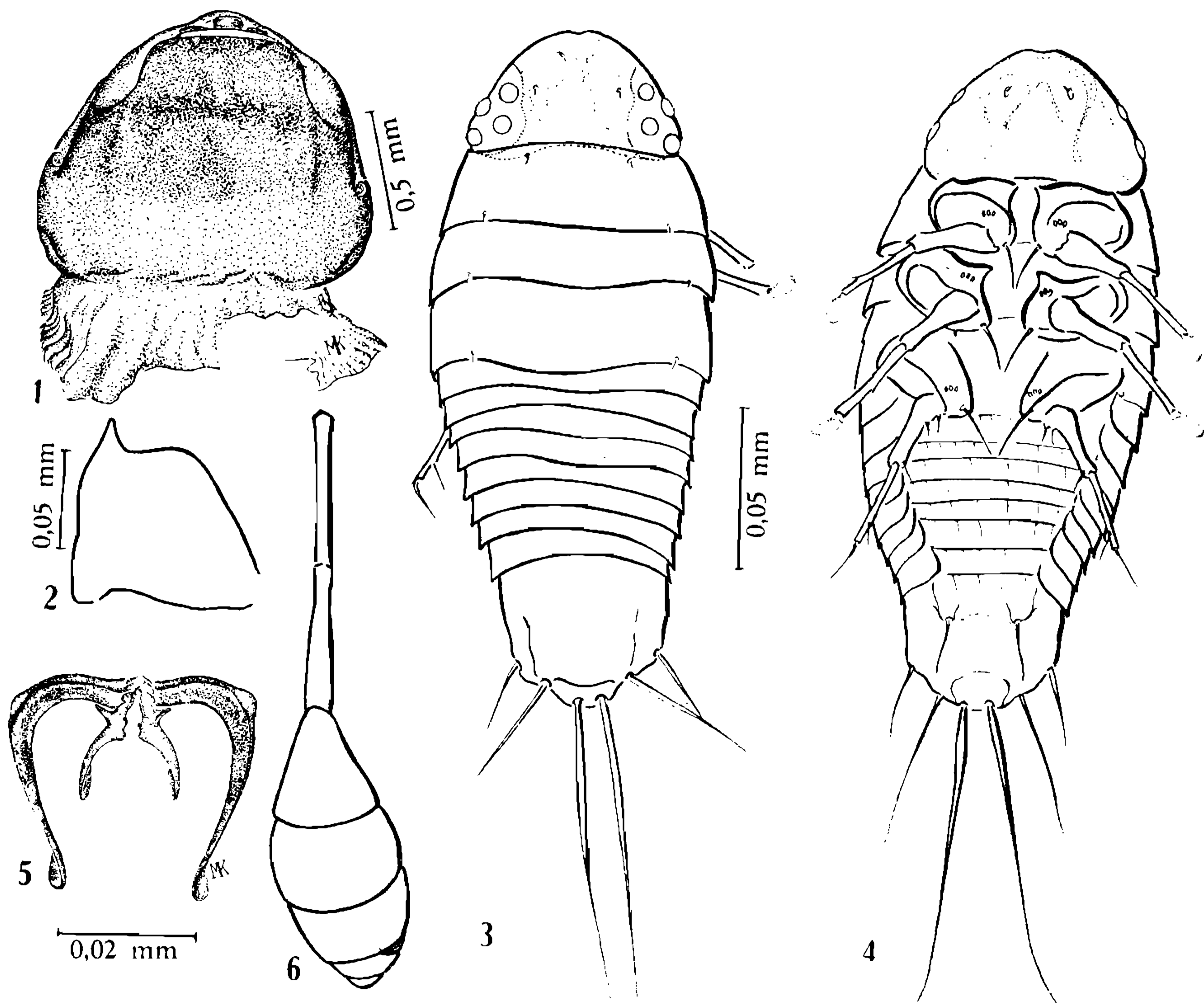
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Principal proportions: Length of cephalothorax 1,12 mm; width at base of cephalothorax 1,07 mm; width between spiracles 1,34 mm; greatest width 1,38 mm; distance between mandibles 0,28 mm; width of the head through the cephalothoracic membrane 0,58 mm; length of the head on the median line 0,11 mm; greatest length of the head 0,51 mm.

Abdomen completely distorted and full of triangulinids in different stages of development.



Pseudoxenus inclusus sp. n. — Fig. 1: Holotype, female cephalothorax, ventral view; fig. 2: idem, right mandibles, ventral view; fig. 3: triungulinid paratype, dorsal view; fig. 4: idem, ventral view; fig. 5: idem, tentorium; fig. 6: female cephalothorax protruding from the abdomen of an *Ammophila* sp.

First stage larva (figs. 3-4) — Body elongated, sub-oval, very slightly constricted posteriorly. Total length without apical stylets: 0,208 mm.; greatest width: 0,094 mm.

Head: Wider than long, slightly depressed in front; ocular areas apparently with 4 ommatidia. Tentorium (fig. 5) with the posterior expansions of the inner branch twisted inwards.

Thorax: Mesothorax shorter than pro- and metathorax. Pro-, meso-, and metasternum with a pair of long hairs, arising one hair from the inner posterior angle of each coxal cavity.

Abdomen: Segments 1-7 are progressively narrowed; thereafter a slight constriction occurs involving the 8th and 9th urites. Latero-posterior angles of the tergites with small setae; 9th abdominal segment with 2 pairs of setae, the posterior pair about half as long as the apical stylets. Urosternites 1-8 with a row of 5-6 very thin hairs on the inter-segmental sutures. The 9th urosternite with a pair of setae arising from a slightly lobate process. Length of stylets approximately 0,097 mm.

Legs: Coxae broad having groups of 3 leaf-like spines near the inner edges and one long hair directed backwards. Posterior femora with 2 basal hairs on each one; tibiae of the 3 pairs sub-equal, with 1-3 setae. Front and mid tarsi one-segmented, discoid; hind tarsi one-segmented, setiform.

Male — Unknown.

Host — *Ammophila* sp. (Hymenoptera, Sphecidae).

Holotype — Female n.º 54, Corrego do Itá Estado do Espírito Santo, Brazil, XI-1956, W. Zikan coll. Located between the 5th and 6th urotergites, on the right side of the host. Paratypes— Hundreds of triungulinids on slides ns. 51, 52 and 53, in the collection of Strepsiptera of the Section of Entomology of the Instituto Oswaldo Cruz.

Discussion: The genus *Pseudoxenus*, in its present status (BOHART, 1941), includes a great number of species parasitizing Sphecid wasps but, up to the present, no record exists of South American species of *Ammophila* parasitized by these insects.

The Neotropical species of *Pseudoxenus* are: *P. taschenbergi* (Brèthes, 1922) — (on *Neosphex pumilio* (Tasch.), Mendoza, Argentine); *P. fuliginosi* (Brèthes, 1922) — (on *Proterosphex fuliginosus* (Dahlb.), Tucuman, Argentine); *P. piercei* (Brèthes, 1922) — (on *Iso-dontia costipennis* Spin., La Rioja, Argentine and Rio de Janeiro, Guanabara, Brazil); *P. mendozae* (Brèthes, 1922) — (on *Priononyx neo-xenus melanogaster* Brèthes, Mendoza, Argentine); *P. argentinus* (Brèthes, 1922) — (on *Proterosphex platensis*, Brèthes, Buenos Aires, Argentine); *P. westwoodii* (Templt.) — (on *Sphex ichneumoneus aurifluus* (Templt)).

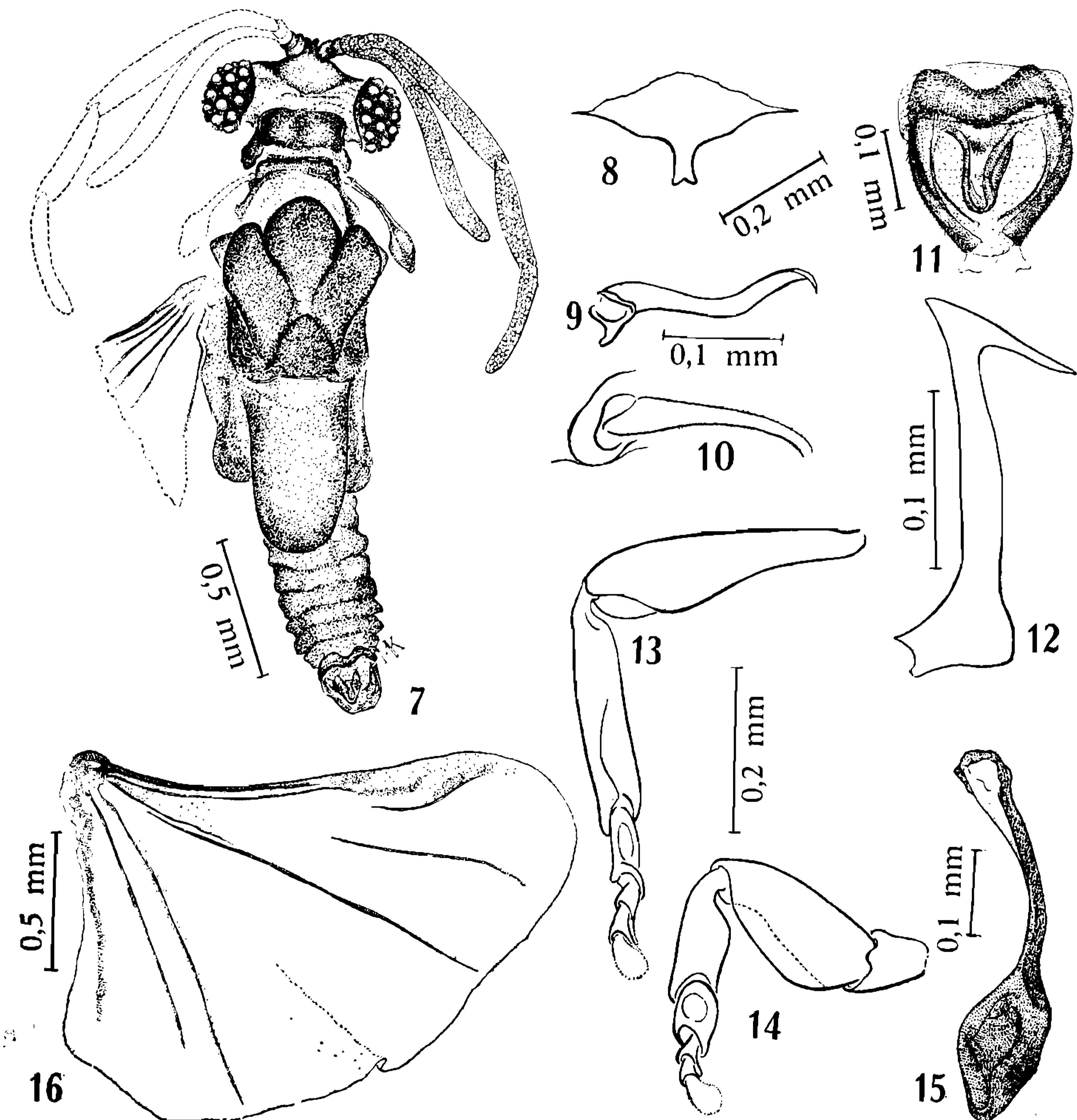
The only recorded Brazilian species is *P. piercei*, but it cannot be confused with *P. inclusus* sp. n. This species seems to be similar to *P. pruinosa* (Pierce, 1909), parasite of *Ammophila pruinosa* Cress., Colorado, U. S. A., from which it can be distinguished by the shape of the head and of the anterior portion of the thoracic area enclosed by the lateral branches of the head. Differences might, perhaps, be observed in the tringulinids although those of *P. pruinosa* are unknown.

Myrmecolax incautus Oliveira & Kogan, 1959

(Figs. 7-16)

Myrmecolax incautus Oliveira & Kogan, 1959-227, figs. 21-26.

Due to the fact that the original description of this species was based upon a damaged specimen, the authors were happy to find a specimen which, although not topotypical, when compared to the type showed the closest similarity. The differences are considered to be within the limits of individual variance.



Myrmecolax incautus Oliveira & Kogan, 1959, male — Fig. 7: Dorsal view; fig. 8: frontal tubercle; fig. 9: right mandible, ventral view; fig. 10: maxillary palpus, ventral view; fig. 11: terminalia, 9th segment and proctiger; fig. 12: aedeagus; fig. 13: mid leg; fig. 14: hind leg; fig. 15: wing of the first pair; fig. 16: wing of the second pair.

Male (fig. 7) — General colour of the dried specimen, dark brown.

Head: Greatest width 0,67 mm; width between the eyes 0,35 mm. Eyes dorsally with at most 14 ommatidia and with pubescence between the ommatidia. Occipital area membranous. Frontal tubercle (fig. 8) bifid in front and widely rounded at the insertion of antennae. First and second antennal segments without sensillae, the others (including the flabellum of the 3rd) entirely covered by such sensorial structures; length of the antennal segments: I-II together — 0,07 mm; III (with flabellum) — 1,00 mm; IV — 0,06 mm; V — 0,64 mm; VI — 0,36 mm; VII — 0,43 mm.

Mandibles (fig. 9) long and narrow, curved and slightly twisted at tip; that from one side extending beyond the mouth opening to the other side. Maxillary palpi (fig. 10) long and slender, arched at tip.

Thorax: Pro- and mesothorax reduced, mesothorax narrower than prothorax. Metathorax broader than the anterior thoracic segments and about 6 times longer; praescutum rounded anteriorly and constricted posteriorly by the two branches of scutum. Scutellum broadly angled anteriorly, the sides rounded, border with postlumbium rounded backwards; postscutellum broadly rounded posteriorly. Length of metathoracic sclerites: praescutum + scutellum 0,60 mm; postscutellum 0,57 mm; total length of metanotum 1,28 mm.

Abdomen: Terminalia (fig. 11) with a very narrow proctiger, the margins of which are twisted upwards. Aedeagus (fig. 12) tubulose, with the transversal branch in an almost 45° angle.

Legs (figs. 13-14): Femora with deep longitudinal grooves. First tarsal segment of all pairs with a conspicuous rounded sensorial organ; 4th segment rounded at tip; all segments slightly pubescent at tip.

Wings: First pair (fig. 15) with a striking halter-like structure, having the distal end club-shaped. Second pair (fig. 16) with 7 main longitudinal veins, and 2 inter-radial-median veins, the first one not furcate at tip; length of median vein 1,50 mm.

Material studied: Male ns. 49 and 50, S. Miguel do Guamá, Estado do Pará, Brazil, XII-1959, L. Gomes col., J. Lane leg.

Holotype was collected at Carmo do Rio Claro, Estado de Minas Gerais, Brazil.

RESUMO

Os A.A. descrevem *Pseudoxenus inclusus* sp. n., baseados em uma fêmea e centenas de triungulinídeos, encontrados parasitando *Ammono-phila* sp., proveniente de Corrego do Itá, Espírito Santo, Brasil. O encontro de um outro exemplar de *Myrmecolax incautus* Oliveira & Kogan, 1959, permitiu aos AA. complementar a descrição desta espécie, cujo holótipo está muito danificado.

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