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On the identity of *Geophilus armatus* Silvestri, 1895, a junior synonym of *Plateurytion tenebrosus* (Meinert, 1886), and other Neotropical members of the genus *Plateurytion* Attems, 1909, including *Plateurytion mauryi*, n. sp. from the Andes of Argentina (Myriapoda: Chilopoda: Geophilomorpha)

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Abstract

The type specimens (male and female "Cotypi") of *Geophilus armatus* Silvestri, 1895 (here designated as lectotype and paralectotype respectively), and the lectotype and paralectotypes of *Geophilus tenebrosus* Meinert, 1886 [currently *Plateurytion tenebrosus* (Meinert, 1886)] were compared morphologically, and all specimens are considered conspecific. Consequently, *G. armatus* is here designated as a new junior synonym of *P. tenebrosus*. A redescription of the species is given, based on the study of numerous additional specimens from Argentina and a few from Uruguay, including new data on morphological characters and their intraspecific variation, as well as new distributional records which expand significantly our knowledge of the geographical range of the species. *Plateurytion mauryi* n. sp. (Chilopoda: Geophilomorpha: Geophilidae) is here described and illustrated from a single female specimen collected in Argentina (Mendoza province: Las Heras departement: Puente del Inca) at *ca*. 2933 m a.s.l., in the eastern slope of the Andes (within the Altoandina biogeographic province). The new species is characterized by having the coxal organs grouped in clusters (two in each coxopleuron of the last leg-bearing segment), this character being shared by two other Neotropical species of the genus, i.e., *P. lethifer* (Crabill, 1968) and *P. yungarun* (Pereira, 2005), from the Yungas of Peru and Argentina respectively, to which it seems to be closely related and with which it is accordingly compared in detail. New diagnoses for these latter species are also given.

Key words

Geophilus armatus, Plateurytion tenebrosus, new synonym, redescription, new records, new species, Andes, Neotropical Region.

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Introduction

In 1895, Filippo Silvestri inadequately described, under the name *Geophilus armatus*, a new species of geophilomorph centipede from Resistencia (Argentina). Subsequently it was cited as Geophilidae *incertae sedis* by Attems (1903; 1929); Bücherl (1940) and Pereira (1998). Latter, Foddai et al. 2000 and Pereira (2007), taking into consideration that the genus *Geophilus* is nearly exclusive Holarctic (most of the species being Palearctic), mention the possibility that *G. armatus* could belong to the genus *Ribautia* Brölemann, 1909.

A recent examination of the type specimens of *Geophilus armatus* revealed that they do not differ from *Plateurytion tenebrosus* (Meinert, 1886) in any morphological character, consequently Silvestri's nominal species is regarded here to be a new junior synonym of the latter. *Plateurytion tenebrosus* was originally described as a new species of *Geophilus* by Meinert (1866), based on specimens from "Riacho del Oro" (Argentina). Crabill (1968), on the base of examination of the syntypical series of *Geophilus tenebrosus* transferred the species to the genus *Eurytion* and offered a description based on an additional female specimen collected in Santa Clara de Olimar (Uruguay), which he affirmed was clearly referable to *tenebrosus* because it agreed in all significant particulars with the syntypical material. Pereira (2006) added new morphological data, based on examination of the type specimens of *G. tenebrosus*, but no complete redescription was given. The present opportunity to study a large number of specimens clearly referable to *P. tenebrosus* (most of them from Argentina, and a few from Uruguay), allows the possibility of giving here a detailed redescription with new data on morphological characters and their variation, as well as new distributional records, which enlarge significantly our knowledge of the geographic range of the species.

Simultaneously to this study, a recent examination of material collected by our late colleague Emilio A. Maury, in the Andes of Argentina (north-western of Mendoza province), resulted in the discovery of a new species of *Plateurytion*, whose description is included in the present contribution. *Plateurytion mauryi* n. sp. is characterized by having the coxal organs grouped in clusters (two of these in each coxopleuron of the last leg-bearing segment), this character being shared by two other Neotropical members of the genus, i.e., *P. lethifer* (Crabill, 1968) and *P. yungarum* (Pereira, 2005), (from the Yungas of Peru and Argentina, respectively) with which the new species is here compared in detail.

Twenty three species and subspecies are currently included in *Plateuryion* Attems, 1909 (Bonato et al. 2007). The genus occurs in Africa, Australia and the Neotropics, showing a pantropical pattern of distribution (Pereira et al. 1997). Nine species (in addition to the new species described below) occur in the Neotropical Region, i.e., *Plateurytion gracilis* (Gervais, 1849) from Argentina and Chile; *P. heurtaultae* (Pereira, 2006) and *P. tenebrosus* (Meinert, 1866) from Argentina and Uruguay; *P. yungarum* (Pereira, 2005) from Argentina; *P. metopias* (Attems, 1903), *P. michaelseni* (Attems, 1903), *P. mundus* (Chamberlin, 1955) and *P. zapallar* (Chamberlin, 1955) from Chile; and *P. lethifer* (Crabill, 1968) from Peru.

A key to the Neotropical taxa is given in Pereira (2006).

Materials and methods

The type specimen of the new species herein described is deposited at the Museum of La Plata (MLP); other type material revised here is currently housed in the Zoological Museum University of Copenhagen (ZMUC) and the Museo Civico di Storia Naturale "G. Doria", Genova (MSNG); non-type specimens have been deposited at the MLP; Facultad de Ciencias de Montevideo, Sección Entomología (FCE); and the ZMUC.

All specimens were examined through light microscopy. Temporary mounts have been prepared by direct transfer of the specimens from the preservation liquid (70 per cent ethanol) onto microscopic slides, using undiluted ethylene glycol monophenyl ether as mounting medium. No additional steps were employed before mounting. Permanent mounts have been made, simply by direct mounting of the specimens on temporary slides, previously cleared and dehydrated -*in situ*- by the action of the ethylene glycol monophenyl ether, in Canada balsam diluted with vegetable creosote (refined from beech tar). Details on these and other procedures for the preparation of geophilomorphs for microscopical examination, are described in Pereira (2000); Foddai et al. (2002); Bonato & Minelli (2004); Uliana et al. (2007). The figures were delineated using a light microscope equipped with a *camera lucida* drawing tube attachment. Measurements are given in mm.

The following abbreviations are used in the text and legends of the figures: a.a., antennal article; b.l., body length; p.l., pairs of legs.

Results

Family Geophilidae

Genus *Plateurytion* Attems, 1909

Diagnosis: Cephalic plate evidently longer than wide, with or without a frontal sulcus. Clypeal area finely punctate or granulate, not areolate. First maxillae with or without coxosternal lappets, telopodite lappets present. Second maxillae: coxosternites medially joined through a narrow, hyaline and non-areolate membranous isthmus only; anterointernal corners of coxosternum without processes; each metameric pore surrounded by a short or elongate sclerotized rim; apical claw of telopodite simple not particularly elongate. Forcipular segment: tergum evidently narrower than subsequent tergum; coxosternum without chitin-lines; pleuro-coxosternal sutures subparallel to the outer margins; forcipules at the same level or overreaching the anterior margin of the cephalic plate. Sternal pores arranged in a single subcircular or slightly transversally elongate area on the anterior part of the trunk; in two paired areas (or absent) on the posterior part of the trunk. Legs of the last pair of seven articles, with a claw-like praetarsus. Sternum of last leg-bearing segment trapezoid, wider than long or about as wide as long. Coxal organs: each coxopleuron of the last leg-bearing segment, with coxal organs disposed in one of the following ways: (1) all distinct and opening separately; (2) all

grouped in one or two clusters ("composite organs"), each opening through a common pit; (3) some organs distinct opening separately, and the remaining arranged in *ca*. one to six irregular groups ("vague rosettes", *sensu* Crabill 1968), each formed by the fusion (generally at level of proximal part of ducts) of two-four organs opening through a common pore. Coxal pores of the last leg-bearing segment, either distributed on the ventral side of the coxopleura (most of them opening along the membrane between coxopleuron and sternum, partially covered by the latter), or distributed on the ventral, lateral and dorsal surfaces.

Type of the genus: Geophilus (*Eurytion*) *michaelseni* Attems, 1903, by original designation.

Remarks: For a complete and detailed list of all species and subspecies currently included in the genus *Plateurytion*, see Bonato et al. (2007).

***Plateurytion tenebrosus* (Meinert, 1866)**

Figs 1-66.

Geophilus tenebrosus Meinert 1886 – Vidensk. Meddel 36-38: 146-147.
Geophilus armatus Silvestri 1895: 769 **New Synonym**
Brachygeophilus tenebrosus: Attems 1929 – Tierreich 52: 192.
Eurytion tenebrosum: Crabill, 1968 – Psyche 75 (3): 229.
Eurytion tenebrosum: Foddai, Pereira & Minelli, 2000 – Amazoniana 16: 75.
Eurytion tenebrosum: Pereira, 2005 – Zootaxa 794: 2.
Eurytion tenebrosus: Pereira, 2006 – Studies Neotr. Fauna Env. 41(2): 161-165, 167.
Plateurytion tenebrosus: Bonato, Pereira & Minelli, 2007 – Zootaxa 1485: 6.

Diagnosis: A Plateurytion species with lappets on coxosternum of first maxillae; anal organs present; and second maxillary circumforaminal rim elongated, with the external margin accompanied by a very narrow and finely areolate hyaline strip. Of the other Neotropical species, currently included in the genus, only the present species and *P. heurtaultae* (Pereira, 2006) share these three combined characters. *Plateurytion tenebrosus* is differentiated from this last by the following unique traits: sclerotized pore rim of coxosternum of second maxillae remarkably elongated with posterior portion (in respect to the metameric pore) longer than the anterior portion (Figs 12-14); females with 55, 57, 59, 61 or 63 pairs of legs and males with 53, 55 or 57 pairs of legs; shape of calyx of poison gland as in Fig. 21.

Remark: Morphological characters in Table 2 differentiate *P. tenebrosus* from *P. heurtaultae*.

Type material examined: Geophilus tenebrosus Meinert, 1866: female lectotype with 57 p.l., b.l. 34 mm, several parts (head capsule, mouth parts, forcipular segment, leg-bearing segments I-XVI and leg-bearing segments LI-LVII followed by the terminal segments) in a permanent slide, but leg-bearing segments XVII-L, in alcohol. Female paralectotype "A" with 57 p.l., b.l. 37 mm, several parts (head capsule with mouth parts not dissected, forcipular segment followed by leg-bearing segments I-VII and leg-bearing segments LI-LVII followed by terminal segments) in a permanent slide, but

leg-bearing segments VIII-L in alcohol. Female paralectotype "B" with 59 p.l., b.l. 40 mm, in alcohol. Male paralectotype "C" with 55 p.l., b.l. 17 mm, in alcohol. Female paralectotype "D" with 57 p.l., b.l. 36 mm, in alcohol. Female paralectotype "E" with 59 p.l., b.l. 24 mm, in alcohol. All specimens from Argentina: Formosa: Riacho de Oro, 27′ 03′S, 58′ 33′′W; labeled as *Geophilus tenebrosus* Meinert (Zoological Museum, University of Copenhagen). – *Geophilus armatus* Silvestri, 1895: female with 55 p.l., b.l. 24 mm; male with 53 p.l., b.l. 17 mm (in alcohol). Both specimens from Argentina: Resistencia (Chaco province), labeled as *Geophilus armatus* sp. n. Silvestri, "Cotypi", Balzan legit. (Museo Civico di Storia Naturale, "G. Doria", Genova). The male specimen is designated here as **Lectotype** of *G. armatus* and the female as **Paralectotype**.

Remarks: Female specimen of *G. armatus* with 8+7 distinct coxal organs, opening separately and spermathecae apparently without spermatozoa (sub-adult?); male specimen with 4+4 distinct coxal organs, opening separately, anterior part of tubula seminifera containing mature spermatozoa and penis with 1+1 apical setae ("maturus junior"?). A detailed morphological comparaison of these type ("Cotypi") specimens and those of *Geophilus tenebrosus* led to the conclusion that all type specimens of both names belong to the same unique species, consequently *Geophilus armatus* Silvestri 1895 is a **New Junior Synonym** of *G. tenebrosus* [currently, *Plateurytion tenebrosus* (Meinert, 1886)]. The original description of Silvestri (1895: 769) says "Pedum paria 54-55", but the first number is a typographical mistake for 53.

Additional material examined: ARGENTINA: Formosa province: Formosa department: *ca*. 28 Km North of Formosa city (Establecimiento Ganadero Guaycolec), Riacho Pilagá (25º55'54′′ S, 58º12′53′′ W), G. Placci leg., 15 February 1990: 5 ♂♂, 55 p.l., b.l. 25, 28, 29, 32 and 35 mm; 3 ♀♀, 57 p.l., b.l. 29, 30 and 34 mm; 2 ♀♀, 59 p.l., b.l. 32 and 33 mm; 2 ♀♀ juv. (with 2+2 coxal organs only), 57 and 59 p.l., b.l. 16, 16 mm (MLP). Buenos Aires province: Florencio Varela: Bosques, L. A. Pereira leg., 1 August 1973: 2 ♂♂, 55 p.l., b.l. 26 mm; 1 ♂ juv. (with 5+5 coxal organs only), 57 p.l., b.l. 19 mm; 2 ♀♀ juv. (with 6+6 coxal organs only), 59 p.l., b.l. 24 and 25 mm; 2 ♀♀ juv. (with 6+7 coxal organs only), 59 p.l., b.l. 21 mm; 1 ♀ juv. (with 5+5 coxal organs only), 61 p.l., b.l. 18 mm; 1 ♀, 59 p.l., b.l. 35 mm; 1 ♀ (subadult?), 61 p.l., b.l. 24 mm; 3 ♀♀, 61 p.l., b.l. 29, 38 and 42 mm (MLP). Buenos Aires province: Berazategui: Parque Pereyra Iraola, N. Sanchez and G. Liljesthröm leg., 9 September 1980: 1 ♀, 59 p.l., b.l. 41 mm (MLP). Buenos Aires province: La Plata: M. B. Gonnet, L. A. Pereira leg., 24 June 1972: 1 ♀, 59 p.l., b.l. 42 mm (on a slide, **specimen "A"**, see below); 1 ♂, 55 p.l., b.l. 28 mm (on a slide, **specimen "B"**, see below) (MLP). Ibid., 17 July 1982: 1 ♀, 61 p.l., b.l. 31 mm (MLP). Ibid., 23 August 1984: 1 ♀, 59 p.l., b.l. 36 mm; 3 ♀♀, 61 p.l., b.l. 22, 27 and 36 mm (MLP). Ibid., 10 October 1984: 1 ♀, 61 p.l., b.l. 42 mm (MLP). Ibid., 8 November 1985: 1 ♂ juv. (with 3+3 coxal organs only), 55 p.l., b.l. 15 mm (MLP). Ibid., 3 January 1986: 1 ♀ juv. (with 3+3 coxal organs only), 61 p.l., b.l. 16 mm (MLP). Ibid., 5 February 1986: 2 juv. (sex?) with 1+1 coxal organs only, 59 p.l., b.l. 8 mm; 1 juv. (sex?) with 1+1 coxal organs, 61 p.l., b.l. 9 mm; 2 ♂♂ (juv.), with 3+3 coxal organs only, 57 p.l., b.l. 14 and 17 mm; 1 ♀ juv. with 3+3 coxal organs only, 59 p.l., b.l. 18 mm; 1 ♂ (with mature spermatozoa), 55 p.l., b.l. 32 mm;

2 ♂♂ (with mature spermatozoa), 57 p.l., b.l. 25 and 27 mm; 2 ♀♀ (without mature ova and without spermatozoa in the spermathecae), 59 and 61 p.l., b.l. 30 mm (MLP). Ibid., 30 June 1986: 1 ♀, 61 p.l., b.l. 38 mm (MLP). Ibid., 10 September 1986: 1 ♀, 59 p.l., b.l. 50 mm (MLP). Ibid., 4 January 1987: 1 ♀, 61 p.l., b.l. 40 mm (MLP). Ibid., 6 September 1987: 1 ♀, 59 p.l., b.l. 33 mm (MLP). Ibid., 12 May 1991: 1 ♂, 57 p.l., b.l. 27 mm (MLP). Ibid., 18 May 1992: 3 ♀♀, 59 p.l., b.l. 33, 43 and 45 mm; 1 ♀ (sub-adult?), 61 p.l., b.l. 33 mm (MLP). Ibid., 12 December 1992: 1 ♀, 59 p.l., b.l. 43 mm (**specimen "D", see below**) (MLP). Ibid., 15 December 1992: 1 ♀, 59 p.l., b.l. 34 mm (MLP). Ibid., 27 December 1992: 1 ♀, 61 p.l., b.l. 47 mm (MLP). Ibid., 15 April 1993: 1 ♀, 59 p.l., b.l. 37 mm (MLP). Ibid., 20 September 1993: 1 ♀, 59 p.l., b.l. 38 mm (MLP). Ibid., 17 March 1994: 1 ♀, 61 p.l., b.l. 40 mm (MLP). Ibid., 21 April 1995: 2 ♀♀, 59 p.l., b.l. 32 and 38 mm; 1 ♂, 55 p.l., b.l. 24 mm; 1 ♂ juv. (with 6+6 coxal organs only), 57 p.l., b.l. 17 mm; 1 ♂ juv. (with 7+7 coxal organs only), 57 p.l., b.l. 17 mm; 1 ♀ juv. (with 7+7 coxal organs only), 61 p.l., b.l. 17 mm (MLP). Ibid., 14 October 1996: 1 ♀, 63 p.l., b.l. 42 mm (MLP). Ibid., 23 December 1996: 1 ♂ juv., 57 p.l., b.l. 21 mm (MLP). Ibid., 20 July 1997: 1 ♀, 57 p.l., b.l. 37 mm; 3 ♀♀, 59 p.l., b.l. 33, 38 and 42 mm; 1 ♂, 55 p.l., b.l. 30 mm; 1 ♂, 57 p.l., b.l. 29 mm; 1 ♂ juv. (with 3+3 coxal organs only), 57 p.l., b.l. 14 mm; 1 ♀ juv. (with 7+7 coxal organs only), 61 p.l., b.l. 20 mm (ZMUC). Ibid., 28 December 1997: 1 ♀, 59 p.l., b.l. 32 mm; 1 juv. (sex.?) with 1+1 coxal organs only, 57 p.l., b.l. 11 mm (MLP). Ibid., 7 March 1998: 1 ♂, 57 p.l., b.l. 33 mm (s**pecimen "C"**, see below), (MLP). Ibid., 17 October 1998: 1 ♂, 57 p.l., b.l. 31 mm (MLP). Ibid., 29 November 1998: 1 ♂, 57 p.l., b.l. 39 mm (MLP). Ibid., 27 July 1999: 1 ♀, 61 p.l., b.l. 44 mm (**specimen "E"**, see below); 1 ♀, 59 p.l., b.l. 52 mm (MLP). Ibid., 3 August 1999: 1 ♀, 59 p.l., b.l. 50 mm (MLP). Ibid., 5 June 2000: 1 ♂, 55 p.l., b.l. 22 mm; 1 ♀, 59 p.l., b.l. 45 mm (MLP). Ibid., 20 January 2001: 1 ♀, 61 p.l., b.l. 43 mm (MLP). Ibid., 10 February 2001: 1 ♂, 57 p.l., b.l. 37 mm (ZMUC). Ibid., 8 June 2001: 1 ♀, 61 p.l., b.l. 45 mm (ZMUC). Ibid., 10 October 2001: 1 ♀, 59 p.l., b.l. 34 mm (MLP). Ibid., 1 August 2003: 1 ♀, 61 p.l., b.l. 40 mm; 2 ♂♂, 57 p.l., b.l. 25 mm (MLP). Ibid., 6 September 2003: 3 ♀♀, 59 p.l., b.l. 31, 45 and 46 mm; 2 ♂♂, 57 p.l., b.l. 33 and 35 mm (MLP). Ibid., 16 September 2003: 1 ♀, 59 p.l., b.l. 41 mm; 2 ♀♀, 61 p.l., b.l. 30 and 35 mm; 1 ♂, 55 p.l., b.l. 21 mm (sub-adult, with 6+4 coxal organs); 2 ♂♂, 57 p.l., b.l. 35 and 37 mm (MLP). Ibid., 15 October 2003: 1 ♀, 59 p.l., b.l. 40 mm (MLP). Ibid., 1 August 2004: 1 ♀ subadult, 59 p.l., b.l. 28 mm; 3 ♀♀, 59 p.l., b.l. 33, 38 and 45 mm; 1 ♀, 61 p.l., b.l. 41 mm; 1 ♂, 57 p.l., b.l. 34 mm (ZMUC). Ibid., 12 August 2004: 1 ♀, 59 p.l., b.l. 35 mm (MLP). Ibid., 5 September 2004: 1 ♀, 59 p.l., b.l. 46 mm (MLP). Ibid., 20 September 2004: 1 ♀, 61 p.l., b.l. 39 mm (MLP). Ibid., 27 September 2004: 4 ♀♀, 61 p.l., b.l. 30, 48, 50 and 52 mm; 1 ♂, 57 p.l., b.l. 41 mm (ZMUC). Ibid., 25 January 2005: 1 ♀, 59 p.l., b.l. 34 mm (MLP). Ibid., 1 April 2005: 1 ♀, 61 p.l., b.l. 49 mm (MLP). Ibid., 3 July 2005: 1 ♀, 59 p.l., b.l. 45 mm (MLP). Ibid., 15 October 2005: 1 ♀, 57 p.l., b.l. 36 mm (MLP). Ibid., 3 December 2005: 1 ♀, 59 p.l., b.l. 35 mm (MLP). Buenos Aires province: Chascomús: Paraje "El Destino", L. A. Pereira leg., 22 April 1990: 4 ♀♀, 57 p.l., b.l. 30, 33, 33 and 34 mm; 2 ♂♂, 53 p.l., b.l. 30 and

32 mm; 2 ♂♂ 55 p.l., b.l. 31 and 32 mm; 3 ♂♂ juv. (with 2+2 coxal organs only), 55 p.l., b.l. 12, 15 and 17 mm; 1 ♀ (juv.) with 2+2 coxal organs only, 57 p.l., b.l. 16 mm; 1 ♂ juv. (with 4+5 coxal organs only), 55 p.l., b.l. 22 mm; 1 ♀ juv. (with 5+5 coxal organs only) 57 p.l., b.l. 21 mm; 1 juv. (sex?) with 1+1 coxal organs only, 55 p.l., b.l. 12 mm (MLP). Buenos Aires province: General Pueyrredón: Laguna de los Padres, A. C. Cicchino leg., 29 November 1995: 1 ♀, 61 p.l., b.l. 34 mm (MLP).

URUGUAY: Lavalleja department: Cerro de la Mina Valencia, C. de Zolessi leg., 26 June 1966: 1 ♀, 57 p.l., b.l. 35 mm; 1 ♀, 61 p.l., b.l. 30 mm (FCE). La Valleja department: Aguas Blancas, C. Rodriguez leg., 6 August 1967: 1 ♀, 59 p.l., b.l. 33 mm (FCE). Florida department: Casupá (under stones), C. S. Carbonell, A. Niesa, C. Morey and L. Zolessi leg., 6 August 1960: 2 ♀♀, 55 p.l., b.l. 24 and 29 mm (FCE). Maldonado department: Sierra de las Animas, L. Zolessi and F. Achaval leg., 17 July 1966: 2 ♀♀, 61 p.l., b.l. 33 and 34 mm (FCE).

Remarks: Specimens "A" and "B" as above, on permanent slides; all remaining specimens in alcohol. A large fraction of the specimens examined were in reproductive age (the adult condition is indicated by mature spermatozoa in the tubula seminifera of the males and spermatozoa in the spermathecae of the females).

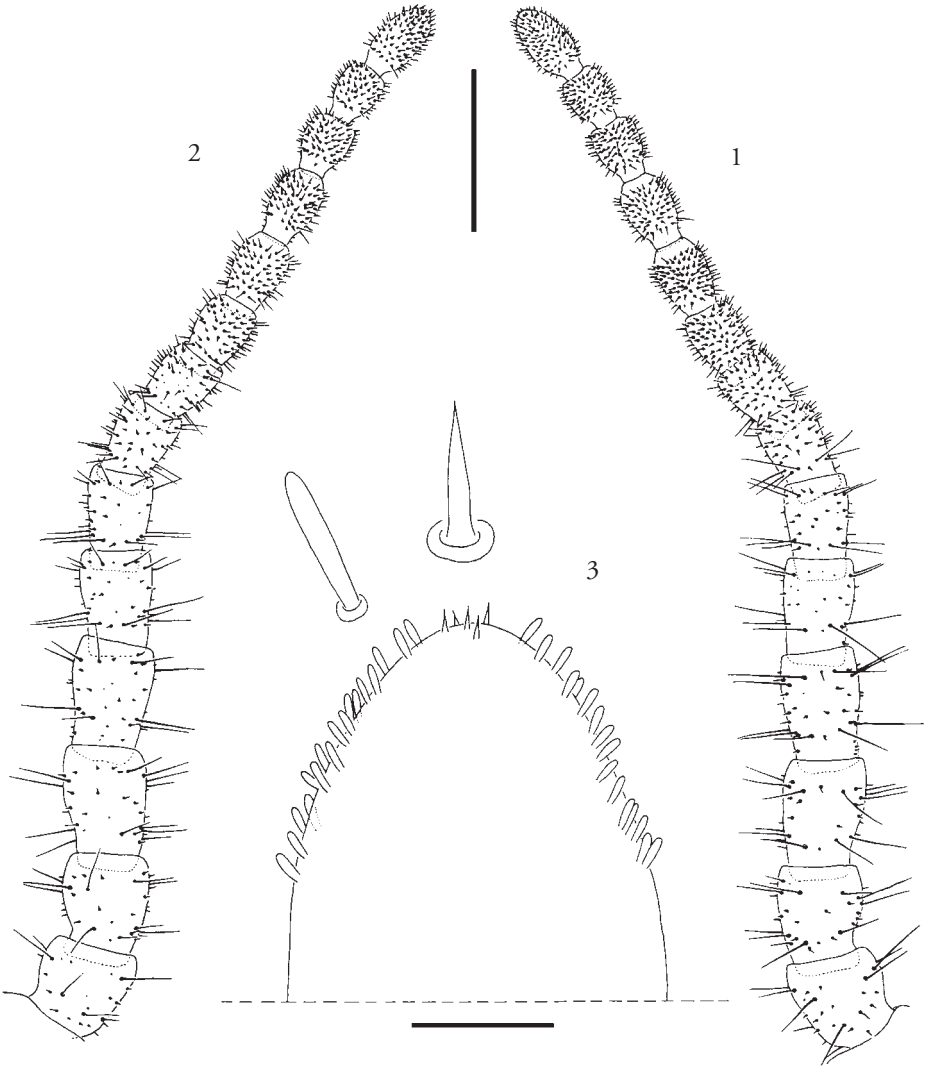
Redescription (Female, specimen "D"): Fifty-nine pairs of legs; body length 43 mm; maximum body width 1.3 mm; length of cephalic shield 1.37 mm; width of forcipular coxosternum 1.3 mm. Ground color (of preserved specimen in alcohol) brownish yellow, cephalic shield and forcipular segment darker (pale ferrugineous).

Antennae relatively short, *ca*. 2.5 times as long as the cephalic plate, all articles longer than wide; a.a. I to *ca*. VII thicker than the remaining ones (Figs 1, 2). Setae on a.a. I to VI of various length, few in number, those of remaining articles progressively shorter and more numerous towards the tip of the appendage (Figs 1, 2). Terminal a.a. with *ca*. 16-17 claviform sensilla on the external and internal borders (Fig. 3); distal end of this a.a. with *ca*. 5 very small specialized sensilla apparently not split apically (Fig. 3). Ventral and dorsal surface of a.a. II, V, IX (Figs 4, 5) and XIII with very small specialized sensilla. Ventral sensilla of two types (a and b) and restricted to an internal latero-apical area. Type a sensilla very thin and not split apically, type b sensilla thicker and very similar to those on the distal end of the terminal a.a. (a, b: Fig. 4). Dorsal sensilla of three types (a, b and c) and restricted to an external latero-apical area. Types a and b, respectively, similar to a and b of ventral side; type c sensilla similar to type b but darker (brownish ochre) in color (a, b, c: Fig. 5). Distribution of type a, b and c sensilla as in Table 1.

Table 1. Number of type a, b and c sensilla on antennal articles II, V, IX and XIII in the female (specimen "D") of *Plateurytion tenebrosus* (Meinert, 1886) from Argentina: Buenos Aires province: La Plata: M. B. Gonnet.

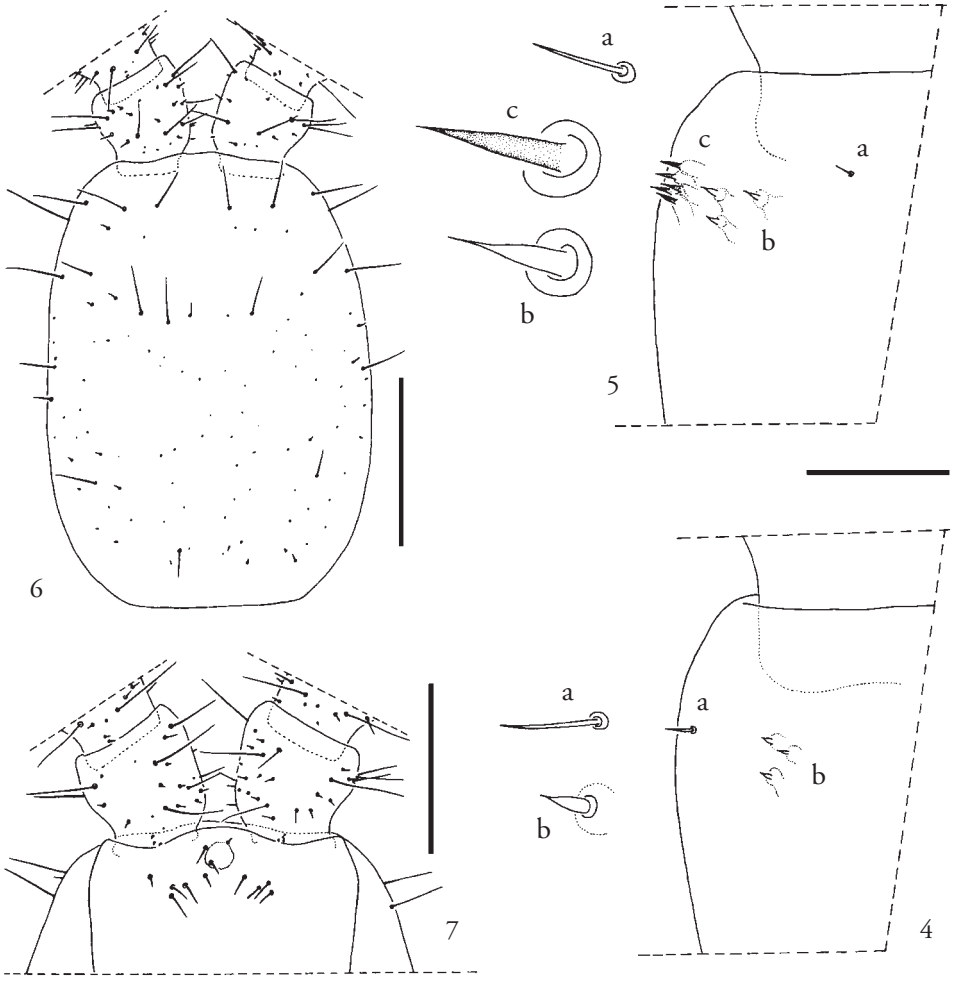
	Ventral		Dorsal			Figures
	a	b	a	b	c	
II	-	2	-	3	-	
V	1	2	1	2	-	
IX	1	2-3	1	3	5	4, 5
XIII	1	1	1	1	5	

Cephalic plate without frontal sulcus, nearly subrectangular but sides curved, distinctly longer than wide (ratio 1.4: 1). Shape and chaetotaxy as in Fig. 6. Clypeus with one seta on the clypeal area and 2 anterior setae bordering it; middle part of clypeal surface with 5+4 setae (Fig. 7). Clypeal area well developed with surface minutely punctate or granulate, not areolate (Figs 7, 8). Labrum: mid-piece well developed and sclerotized, with *ca*. 7 short hyaline teeth. Side-pieces with 25+21 hyaline filaments (Fig. 9). Mandible with shape as in Fig. 10, pectinate lamella with *ca*. 22 hyaline teeth. First maxillae with well developed lappets on coxosternum and telopodites, relative



Figures 1-3. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 1: left antenna, ventral; 2: left antenna, dorsal; 3: apical region of left a.a. XIV, ventral. Scale bars: 0.5 mm (1, 2); 0.05 mm (3).

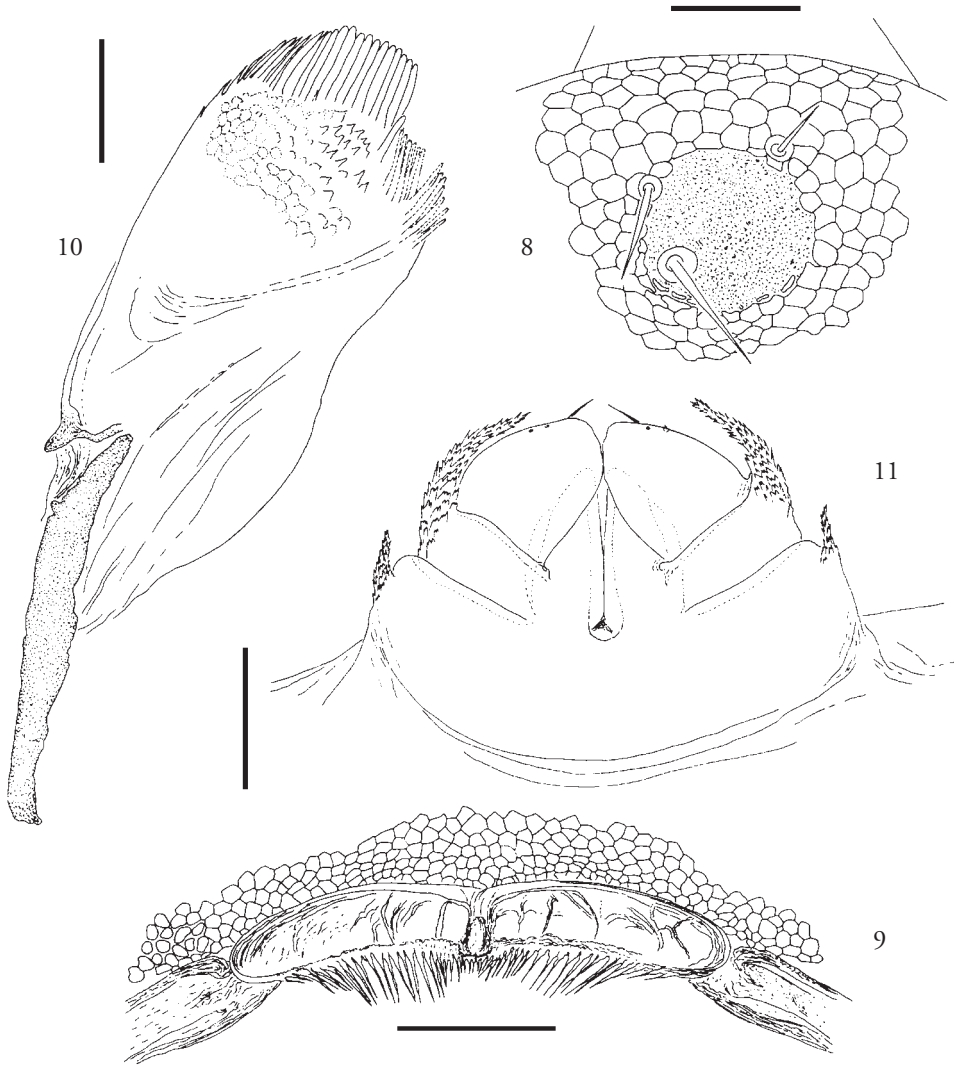
size as in Figs 11, 12. Coxosternum without setae; median projections of coxosternum subtriangular, conspicuously longer than wide and ventrally provided with 5+4 large setae and 3+4 small sensilla. Article II of telopodite with 6+7 ventral setae (Figure 12) and 2+2 dorso-apical small sensilla (Fig. 11). Second maxillae: coxites medially joined through a narrow hyaline and non areolate membranous isthmus only (Fig. 12), ventrally with 10+11 setae and 5+5 small sensilla (Fig. 12), dorsally with 1+1 setae (b: Fig. 12). Circumforaminal sclerotized rim notably elongated, with external margin bordered by a very narrow and finely areolate hyaline strip, portion posterior to the



Figures 4-7. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 4: left a.a. IX, ventral (a, b: a, b type sensilla); 5: left a.a. IX, dorsal (a, b, c: a, b, c type sensilla); 6: cephalic shield and base of antennae; 7: clypeus and base of antennae. Scale bars: 0.05 mm (4, 5); 0.5 mm (6); 0.4 mm (7).

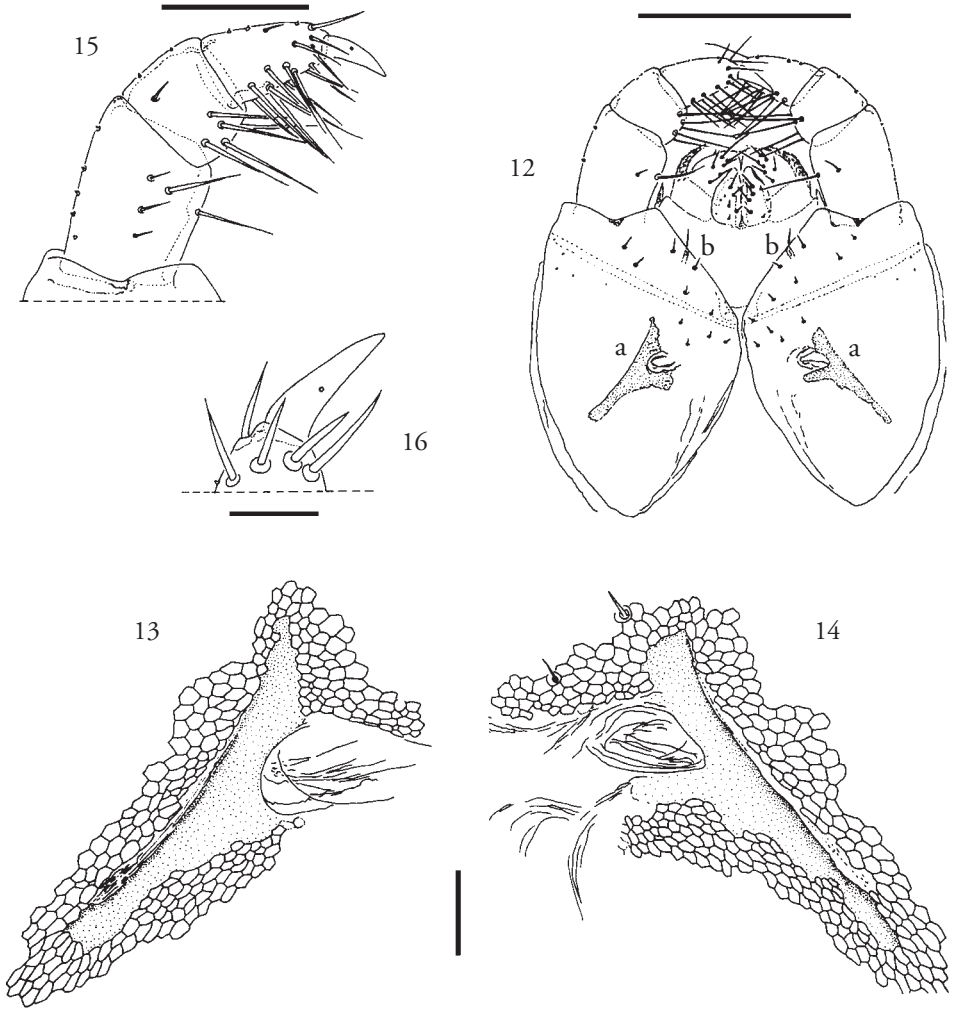
metameric pore longer than the anterior portion (a: Fig. 12; Figs 13, 14). Apical claw of telopodite well developed, very slightly curved internally (Figs 12, 15, 16). Chaetotaxy of coxosternum and telopodites as in Figs 12, 15, 16.

Forcipular segment: when closed, the telopodites reach the level of the anterior margin of the head or project slightly beyond. Forcipular tergum trapeziform with anterior and posterior margins respectively covered by the cephalic plate and the tergum



Figures 8-11. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 8: clypeal area; 9: labrum; 10: right mandible, ventral; 11: first maxillae, dorsal. Scale bars: 0.05 mm (8, 10); 0.1 mm (9, 11).

of the first leg-bearing segment; chaetotaxy represented by an irregular tranverse row of four large setae and a few very small setae distributed as in Fig. 18. Coxosternum without chitinous lines, middle part of anterior border with two denticles, a little darker in color than the coxosternal surface, shape and relative size as in Figs 17, 19. Telopodites: medial edge of trochanteropraefemur with two denticles, both deeply pigmented, basal denticle smaller than the distal (Fig. 17). Femur and tibia without denticles. Tarsungulum basally with a deeply pigmented denticle; dorsal and ventral edges of the ungular

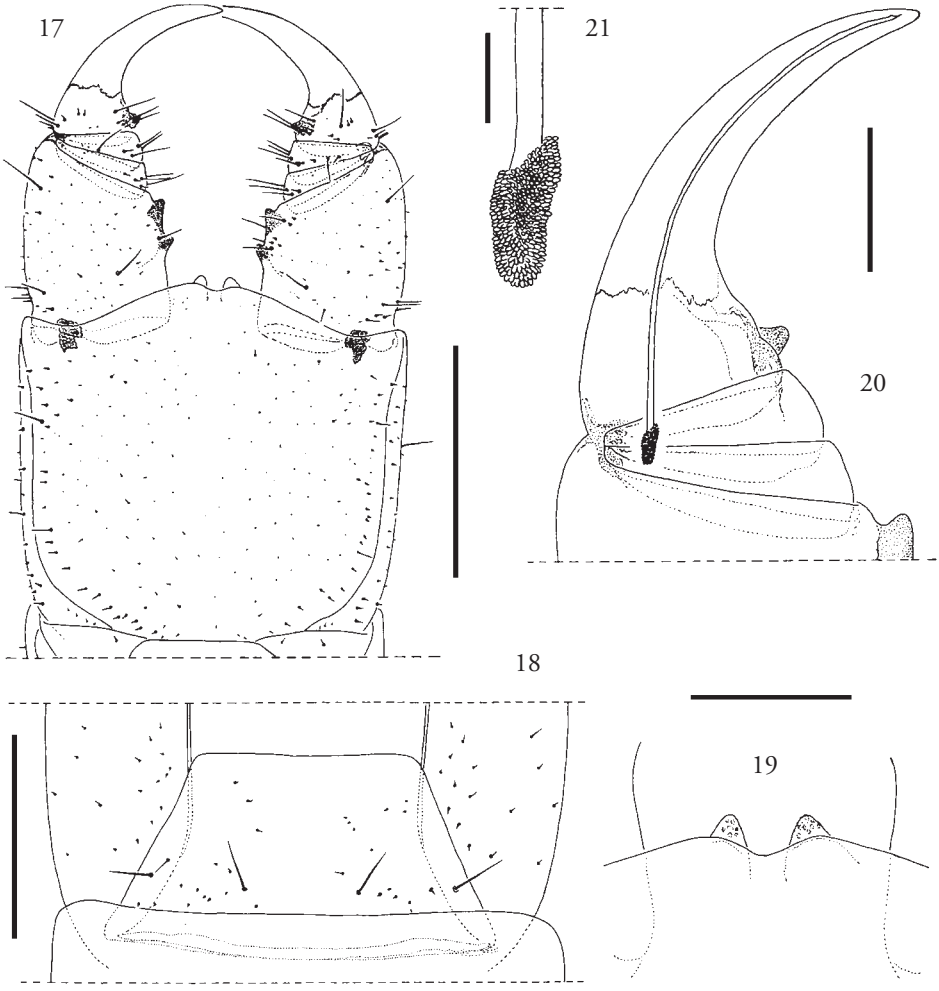


Figures 12-16. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 12: first and second maxillae, ventral (a: sclerotized rim; b: dorsal seta); 13: detail of sclerotized rim of coxosternum of right second maxilla, ventral; 14: detail of sclerotized rim, of coxosternum of left second maxilla, ventral; 15: telopodite of left second maxilla, dorsal; 16: claw of telopodite of right second maxilla, ventral. Scale bars: 0.4 mm (12); 0.05 mm (13, 14, 16); 0.2 mm (15).

blade not serrulate (Figs 17, 20). Shape of calyx of poison gland as in Figs 20, 21. Chaetotaxy of coxosternum and telopodites as in Fig. 17.

Walking legs: first pair shorter than the second (ratio *ca*. 0.8: 1). Chaetotaxy similar along all the body length (Figs 22-26). Claws ventrally with two basal parungues, the anterior parunguis longer than the posterior (Figs 27, 28).

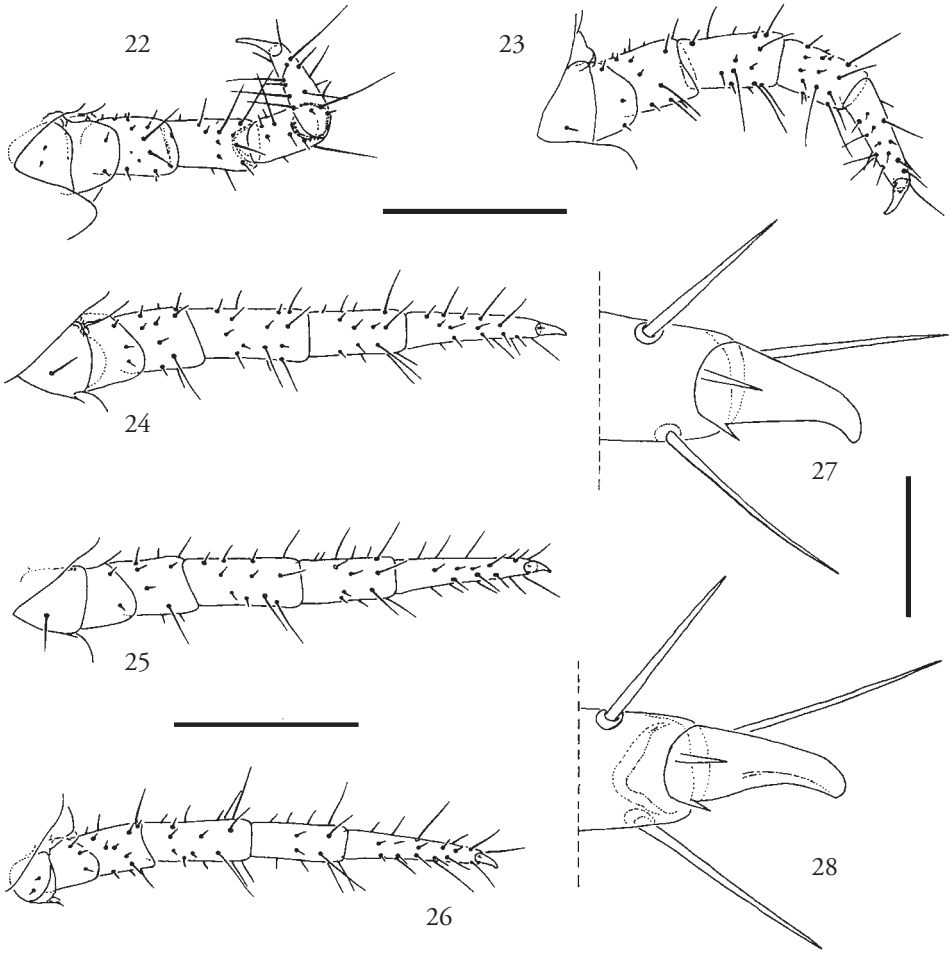
Sterna: pore fields and a median shallow longitudinal sulcus present from the second to penultimate sternum. Fields undivided on sterna II-XVI and divided in two subsym-



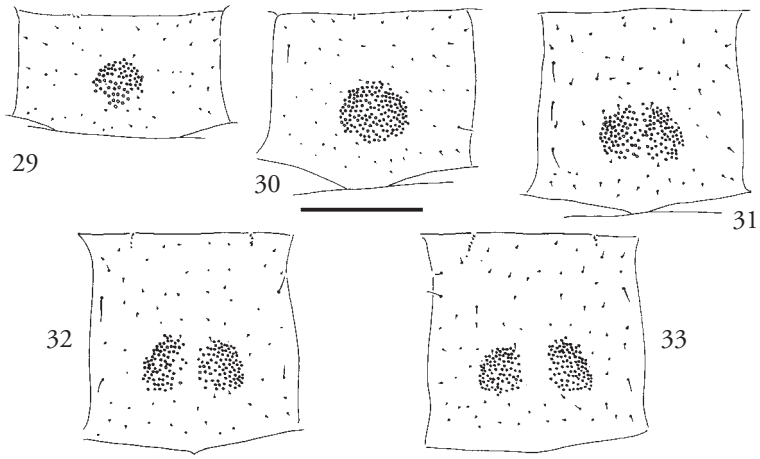
Figures 17-21. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 17: forcipular segment, ventral; 18: basal part of forcipular segment, dorsal; 19: middle part of anterior border of forcipular coxosternum showing denticles, ventral; 20: detail of conduct and calyx of poison gland in right forcipular telopodite, ventral; 21: detail of calyx of right poison gland, ventral. Scale bars: 0.8 mm (17); 0.5 mm (18); 0.2 mm (19, 20); 0.03 mm (21).

metrical areas in all remaining ones (XVII-LVIII). Form and relative size of fields changing along the trunk as in Figs 29-35. Number of pores on selected sterna: sternum II (68); VIII (151); XVI (149); XVIII (76+86); XIX (83+91); XLIX (52+62); LVIII (16+24).

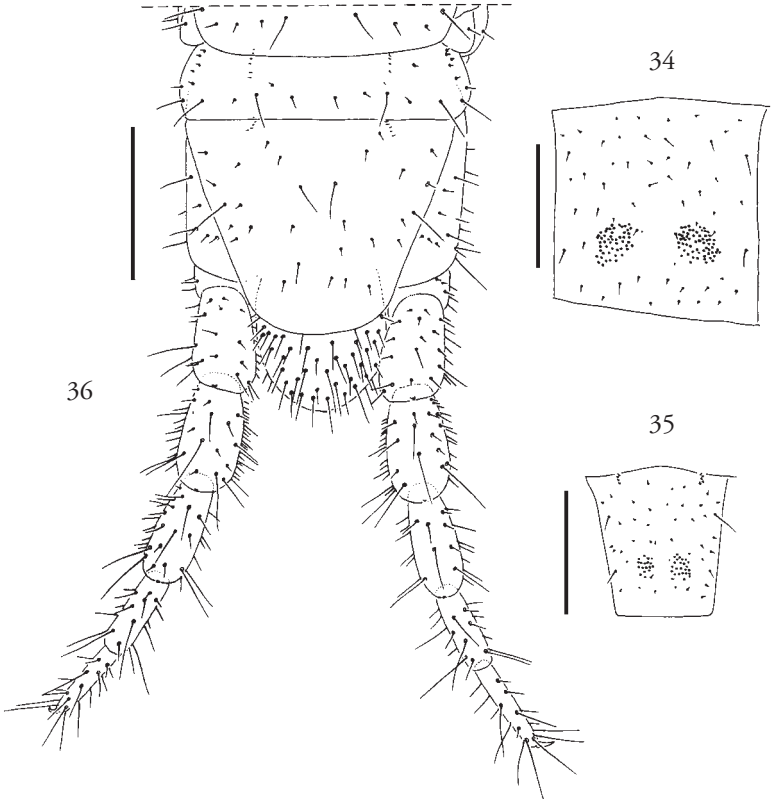
Last leg-bearing segment: without pleurites at the sides of praetergum. Praesternum divided in the sagittal plane; shape and chaetotaxy of tergum and sternum as in Figs 36, 37. Coxopleura apparently not protruding at their distal ventral ends, setae numerous on the distal ventral area, the remaining surface with few larger setae



Figures 22-28. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 22: left leg II, ventral; 23: left leg III, ventral; 24: left leg XXVI, ventral; 25: left leg XLI, ventral; 26: left leg LVIII, ventral; 27: claw of left leg XXV, ventral; 28: claw of left leg XXVI, ventral. Scale bars: 0.4 mm (22-26); 0.05 mm (27, 28).



Figures 29-33. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 29: sternum II; 30: sternum III; 31: sternum XVI; 32: sternum XVIII; 33: sternum XIX. Scale bar: 0.4 mm.



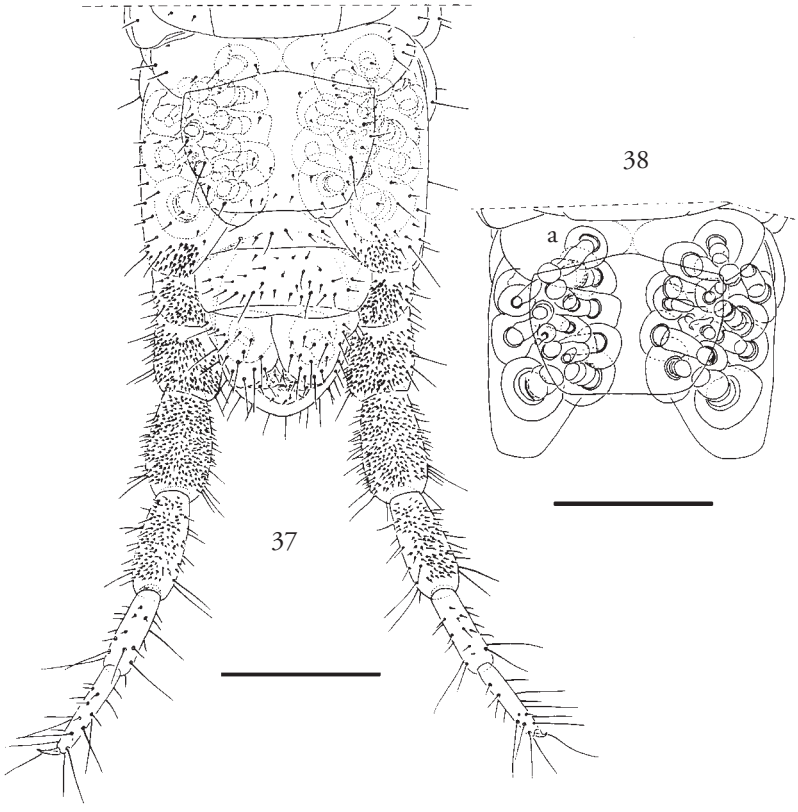
Figures 34-36. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 34: sternum XLIX; 35: sternum LVIII; 36: last leg-bearing segment and terminal segments, dorsal. Scale bars: 0.4 mm.

(Figs 36, 37). All coxal organs opening on the membrane between coxopleuron and sternum, partially covered by the latter (Figs 37, 38); right coxopleuron provided with 16 organs of which 13 open separately and three are fused in an anterior group (a: Fig. 38); left coxopleuron with 16 organs, all opening separately (Fig. 38). Last legs with seven podomeres, form and chaetotaxy as in Figs 36, 37. Praetarsus unguiform, relatively smaller than those of the preceding legs (in the proportion 0.80: 1), and basally provided with a single and small internal parunguis (Fig. 37).

Terminal segments: intermediate tergum with posterior margin strongly convex (Fig. 36), intermediate sternum with posterior margin straight to very slightly concave, first genital sternum with posterior margin concave. Gonopods uniarticulate, very poorly developed and contiguous along the sagittal plane, without setae (Fig. 37).

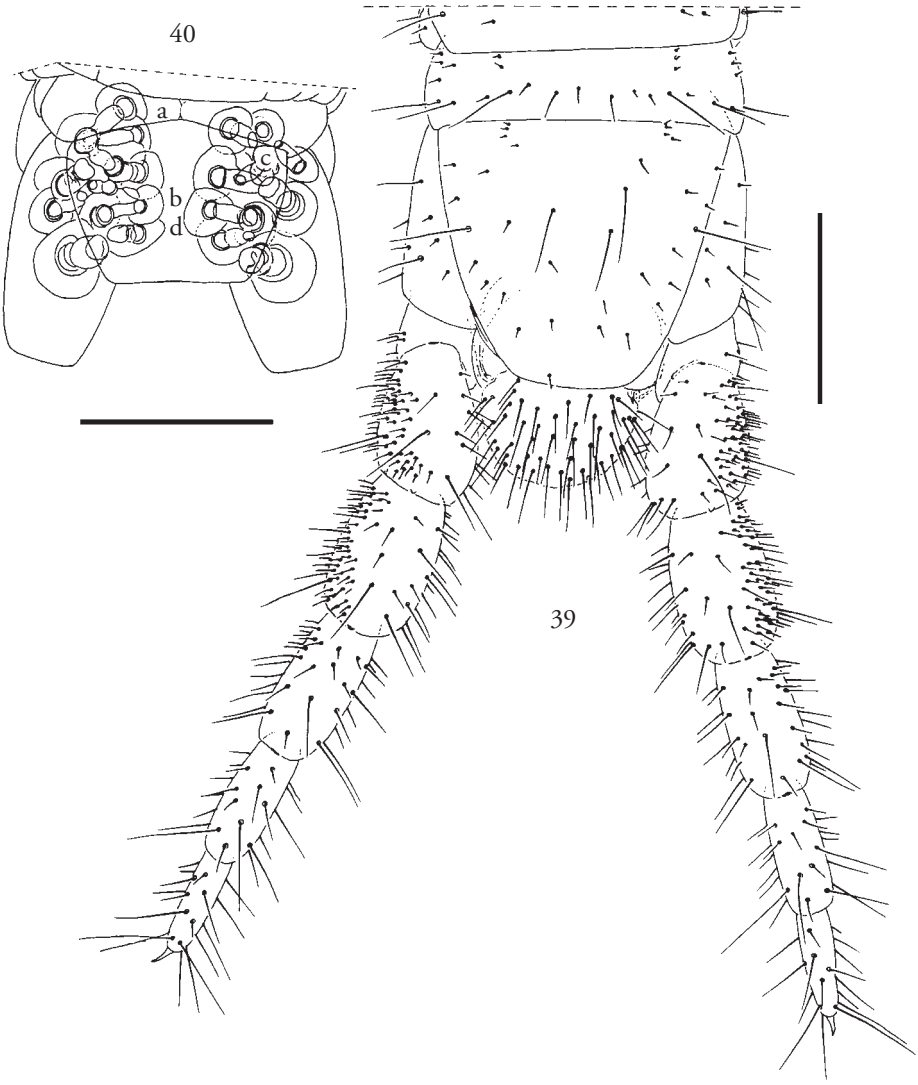
Anal organs present (Fig. 37).

Male (Specimen "C"): Fifty-seven pairs of legs, body length 33 mm, maximum body width 1.2 mm. All features similar to those in the female except for the shape and chaetotaxy of the last leg-bearing segment and terminal segments.



Figures 37-38. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "D"; Argentina: Buenos Aires province: Florencio Varela). 37: last leg-bearing segment and terminal segments, ventral; 38: detail of coxal organs, ventral (a: group formed by the fusion of three organs). Scale bar: 0.4 mm.

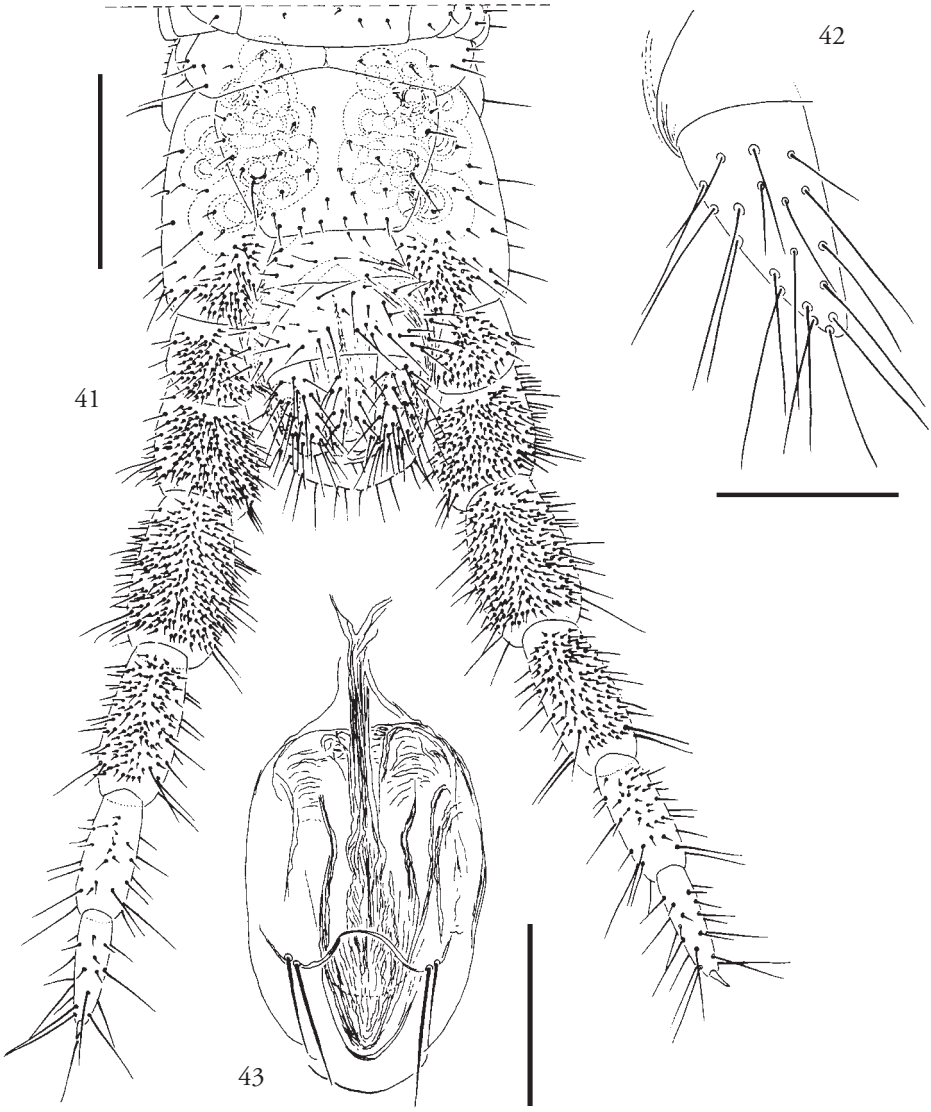
Last leg-bearing segment: form and chaetotaxy of tergum and sternum as in Figs 39, 41. Coxopleura very slightly protruding at their distal-internal ventral ends (Fig. 41), setae small and numerous on the distal internal ventral area, the remaining coxopleural surface with few larger setae (Figs 39, 41). Right coxopleuron provided with 12 coxal organs (Figs 40, 41), six of which opening separately, four fused in an anterior group (a: Fig. 40), and two fused in a middle group (b: Fig. 40); left coxopleuron with 11 organs (Figs 40, 41), six of which opening separately, three fused in an anterior group (c: Fig. 40) and two fused in a middle group (d: Fig. 40).



Figures 39-40. *Plateurytion tenebrosus* (Meinert, 1866) (male specimen "C"; Argentina: Buenos Aires province: Florencio Varela). 39: last leg-bearing segment and terminal segments, dorsal; 40: detail of coxal organs, ventral (a: group formed by the fusion of four organs; b, d: groups formed by the fusion of two organs; c: group formed by the fusion of three organs). Scale bar: 0.3 mm.

Terminal segments: intermediate tergum with posterior margin convex (Fig. 39), intermediate sternum with posterior margin medially very slightly convex, laterally very slightly concave (Fig. 41). Gonopods uniarticulate with presumptive suture between basal and distal articles not evident, left gonopod with 18 setae (Fig. 41) and right gonopod with 19 setae (Figs 41, 42); penis dorsally with 2+2 apical setae (Fig. 43).

Type locality: Argentina: Formosa province: Riacho de Oro.

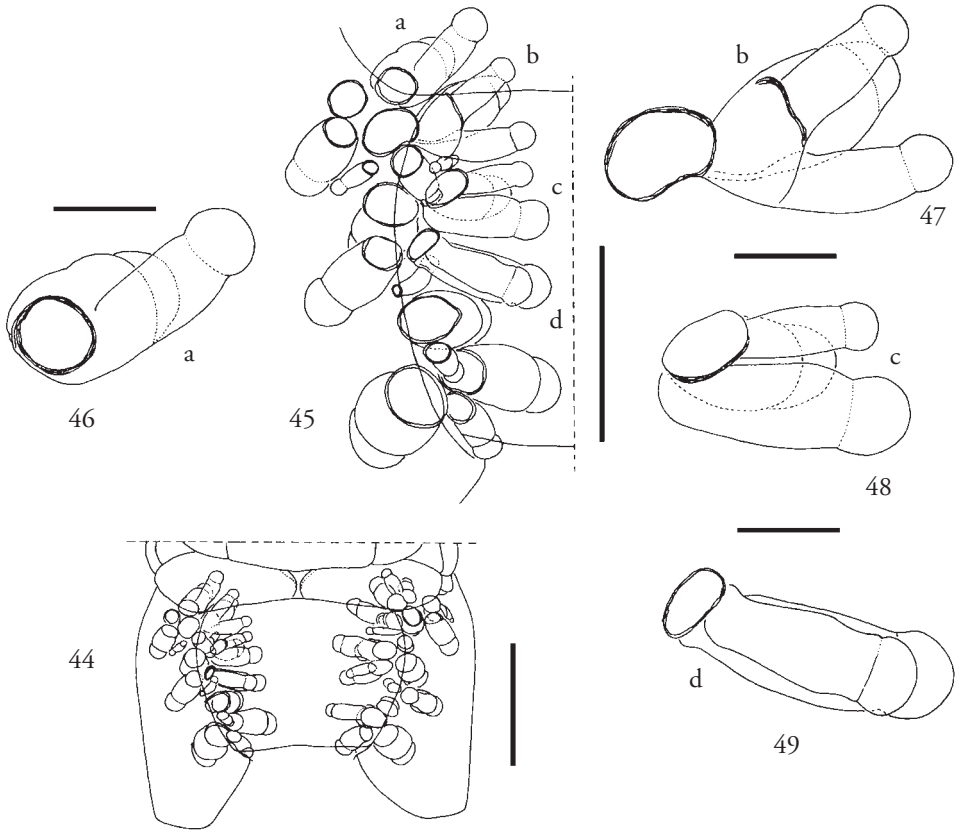


Figures 41-43. *Plateurytion tenebrosus* (Meinert, 1866) (male specimen "C"; Argentina: Buenos Aires province: Florencio Varela). 41: last leg-bearing segment and terminal segments, ventral; 42: right gonopod, ventral; 43: penis, dorsal. Scale bars: 0.3 mm (41); 0.1 mm (42, 43).

Known range: ARGENTINA: Formosa province: Formosa department: Riacho de Oro; Riacho Pilagá. Chaco province: Resistencia. Buenos Aires province: Florencio Varela: Bosques; Berazategui: Parque Pereyra Iraola; La Plata: M. B. Gonnet; Chascomús: Paraje "El Destino"; General Puyrredón: Laguna de los Padres. URUGUAY: Treinta y Tres department: Santa Clara de Olimar. Lavalleja department: Cerro de la Mina de Valencia; Aguas Blancas. Florida department: Casupá. Maldonado department: Sierra de las Animas.

Remarks: Up to present, the species was only known from the type locality in Argentina, and Santa Clara de Olimar (Uruguay).

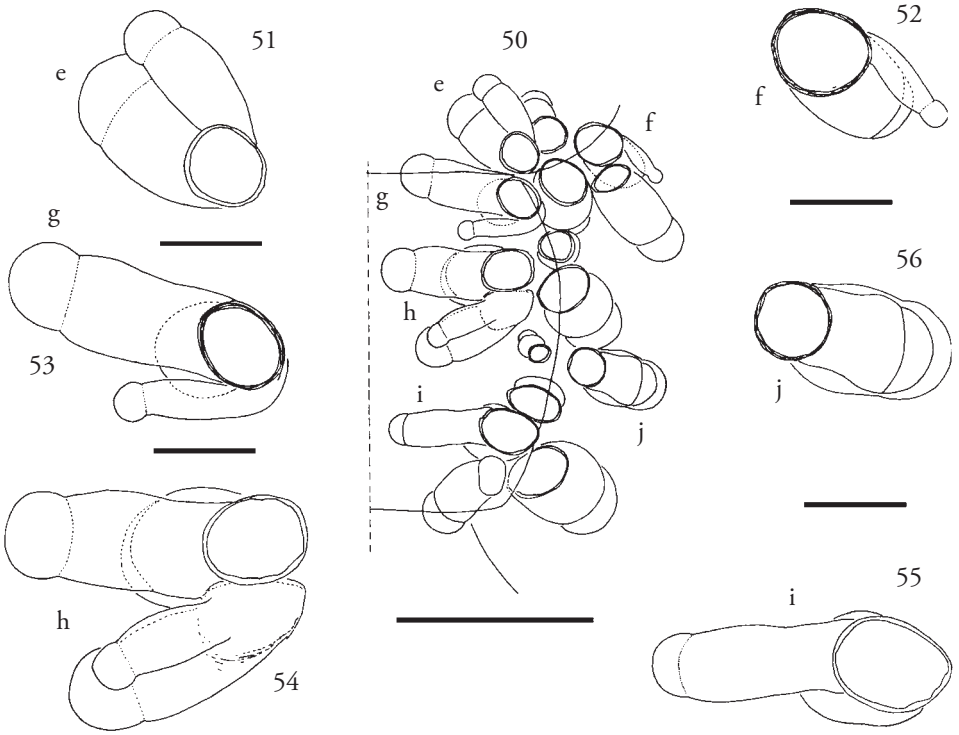
Variation: Maximum body length: in adult males, 41 mm; in adult females, 52 mm. Pairs of legs: 53, 55 or 57 in the males and 55, 57, 59, 61 or 63 in the females. Clypeal area: with 1 to 5 inclusive setae. Chaetotaxy of coxosternum of first maxillae:



Figures 44-49. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "A"; Argentina: Buenos Aires province: Florencio Varela). 44: coxal organs, ventral; 45: detail of right coxal organs, ventral (a, d: groups formed by the fusion of two organs; b, c: groups formed by the fusion of three organs); 46-49: detail of "a", "b", "c" and "d" in Fig. 45 respectively. (The figures of coxal organs only show the internal chitinous structure). Scale bars: 0.3 mm (44); 0.2 mm (45); 0.05 mm (46-49).

without setae or with 1-4 setae. Pore fields: undivided fields of anterior third of the body extend from sternum II to XIII-XVIII; divided fields from sterna XIV-XIX to penultimate. Coxal organs in adult specimens: each coxopleuron with a maximum of *ca*. 25 organs. All organs opening separately or (in the largest specimens), some organs opening separately and the remaining arranged in *ca*. one to six irregular groups, each formed by the fusion of 2-4 organs sharing a common pore. Specimens "A", "B" and "E" (cf. the list of specimens above) with coxal organs distributed as follows:

Specimen A (female): Right coxopleuron with 23 coxal organs (Figs 44, 45), 13 opening separately and the remaining arranged in four groups of which two are formed by the fusion of two organs (a, d: Figs 45, 46, 49), and the other two by three organs (b, c: Figs 45, 47, 48); left coxopleuron with 23 organs (Figs 44, 50), nine opening separately and the remaining arranged in six groups, of which four are formed by the



Figures 50-56. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "A"; Argentina: Buenos Aires province: Florencio Varela). 50: detail of left coxal organs, ventral (e, f, i, j: groups formed by the fusion of two organs; g: group formed by the fusion of three organs; h: group formed by the fusion of four organs); 51-56: detail of "e", "f", "g", "h", "i" and "j" in Fig. 50, respectively. (The figures of coxal organs only show the internal chitinous structure). Scale bars: 0.2 mm (50); 0.05 mm (51-56).

fusion of two organs (e, f, i, j: Figs 50-52, 55, 56), one by three (g: Figs 50, 53) and one by four organs (h: Figs 50, 54).

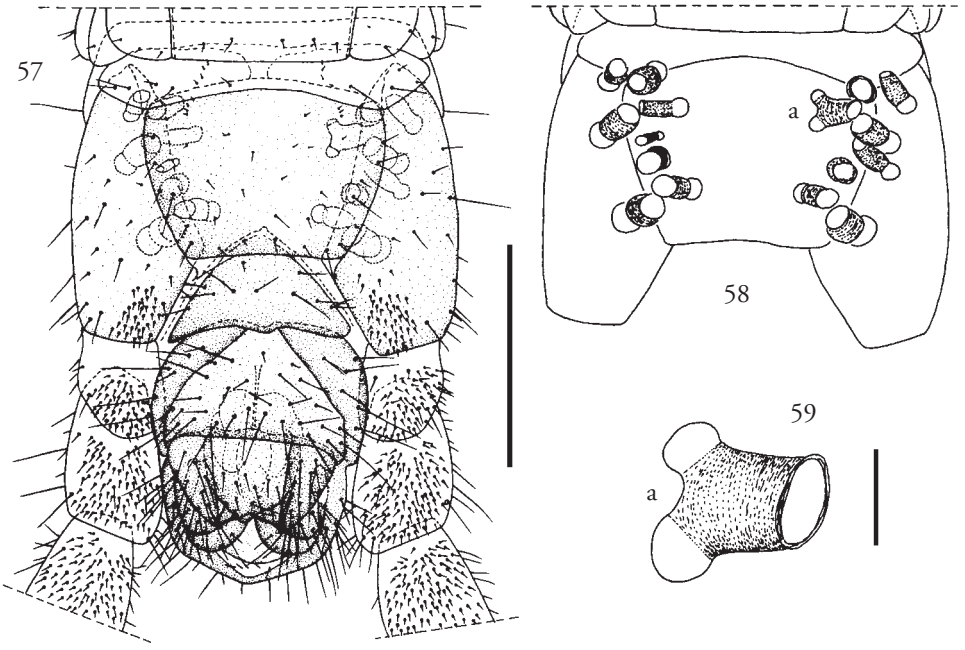
Specimen B (male): Right coxopleuron with 8 coxal organs (Figs 57, 58), all opening separately; left coxopleuron with 9 organs (Figs 57, 58), seven opening separately, and two fused together in a small group (a: Figs 58, 59).

Specimen E (female): Right coxopleuron with 17 coxal organs (Fig. 60), 11 opening separately and the remaining arranged in three groups, each formed by the fusion of two organs (a, b, c: Figs 60-63); left coxopleuron with 17 organs (Fig. 60), 10 opening separately and the remaining arranged in three groups, of which two are formed by the fusion of two organs (d, e: Figs 60, 64, 65) and one by three organs (f: Figs 60, 66).

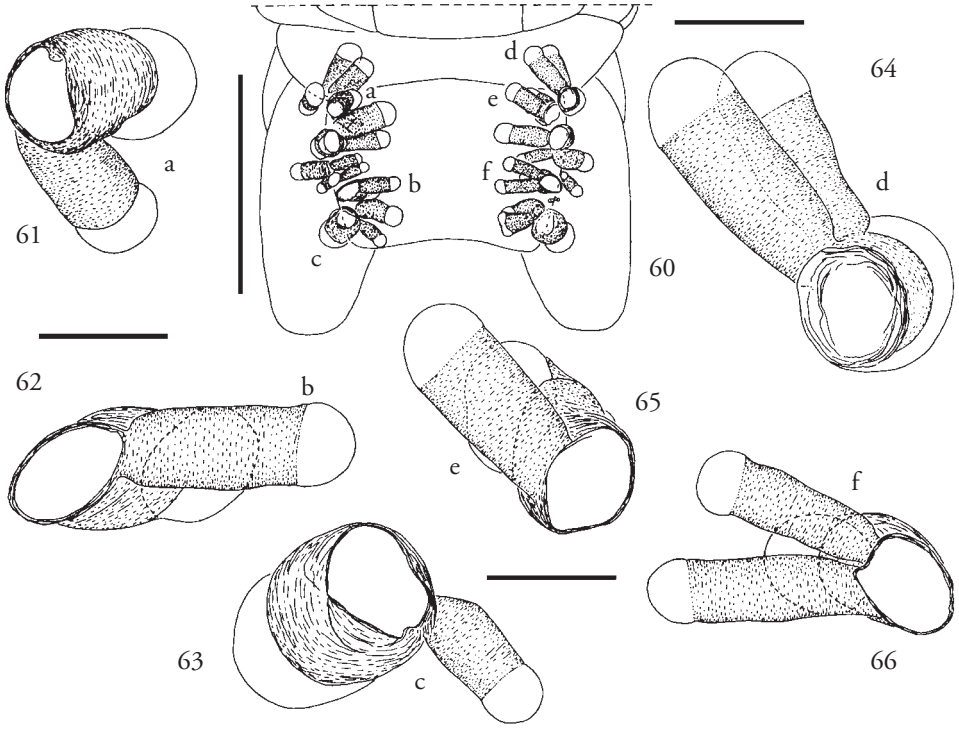
In all specimens examined, all coxal pores are distributed on the membrane between coxopleuron and sternum, partially covered by the latter (Figs 37, 38, 40, 41, 44, 45, 50, 57, 58, 60).

Chaetotaxy of penis in adult males: with 1+1, 2+2; 3+3; 4+3; or 4+4 apicodorsal setae.

No significant variation was detected in the other characters. All specimens examined have 1+1 anal organs.



Figures 57-59. *Plateurytion tenebrosus* (Meinert, 1866) (male specimen "B"; Argentina: Buenos Aires province: Florencio Varela). 57: last leg-bearing segment and terminal segments, ventral; 58: detail of coxal organs, ventral ("a", group formed by the fusion of two organs); 59: detail of "a" in Fig. 58. (The figures of coxal organs only show the internal chitinous structure). Scale bars: 0.3 mm (57, 58); 0.03 mm (59).



Figures 60-66. *Plateurytion tenebrosus* (Meinert, 1866) (female specimen "E"; Argentina: Buenos Aires province: Florencio Varela). 60. Coxal organs, ventral ("a", "b", "c", "d", "e": groups formed by the fusion of two organs; "f": group formed by the fusion of three organs); 61-66: detail of "a", "b", "c", "d", "e" and "f", respectively, in Fig. 60. (The figures of coxal organs only show the internal chitinous structure). Scale bars: 0.4 mm (60); 0.05 (61-66).

Plateurytion heurtaultae **(Pereira, 2006)**

Figs 67-76.

Eurytion heurtaultae Pereira 2006 – Stud. Neotr. Fauna Env. 41 (2): 154-161.
Plateurytion heurtaultae: Bonato, Pereira & Minelli, 2007 – Zootaxa 1485: 6.

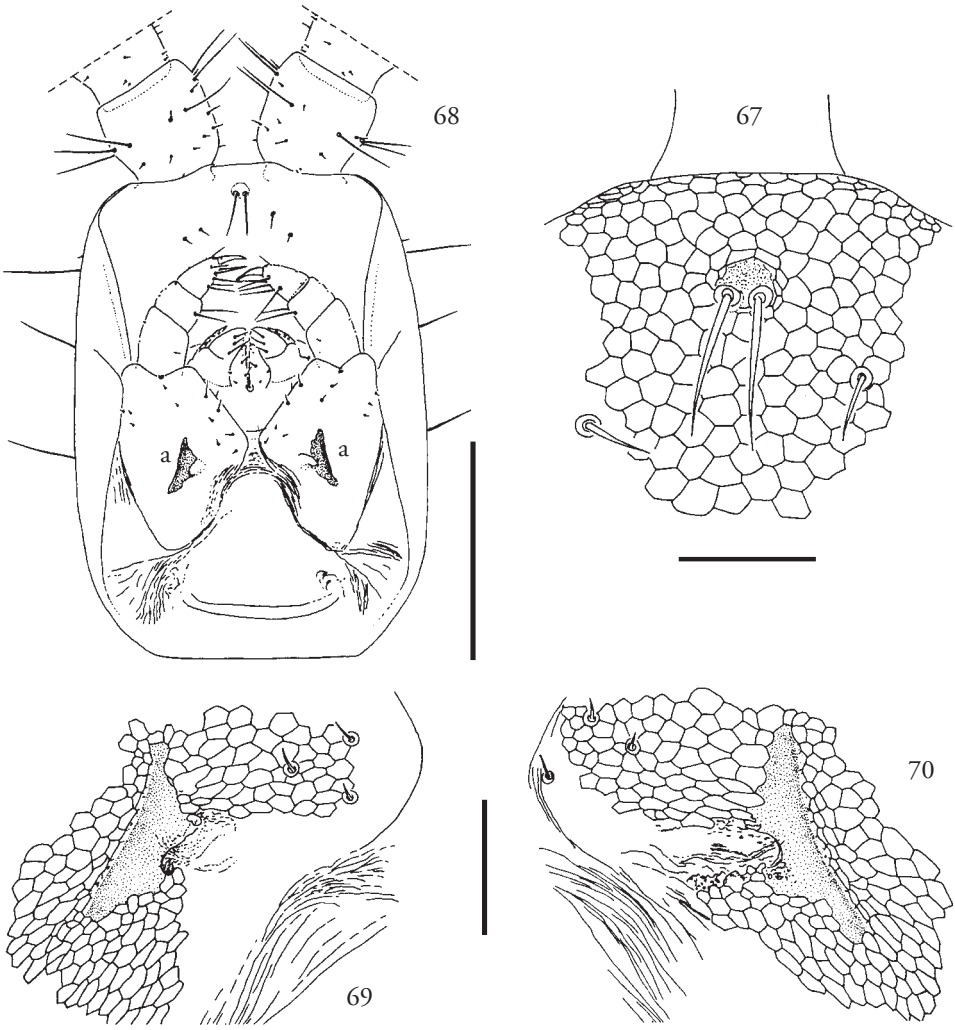
Diagnosis: Similar to *Plateurytion tenebrosus* (its closest Neotropical relative), from which it differs in the following unique traits (cf. Table 2): sclerotized pore rim of the coxosternum of the second maxillae slightly elongated with anterior and posterior portions subequal in size, in respect to the metameric pore (Figs 68-70); females with 49, 51, or 53 pairs of legs and males with 45, 47, 49 or 51 pairs of legs; shape of calyx of poison gland as in Fig. 72.

Type locality: Argentina: Buenos Aires province: Ensenada: Punta Lara.

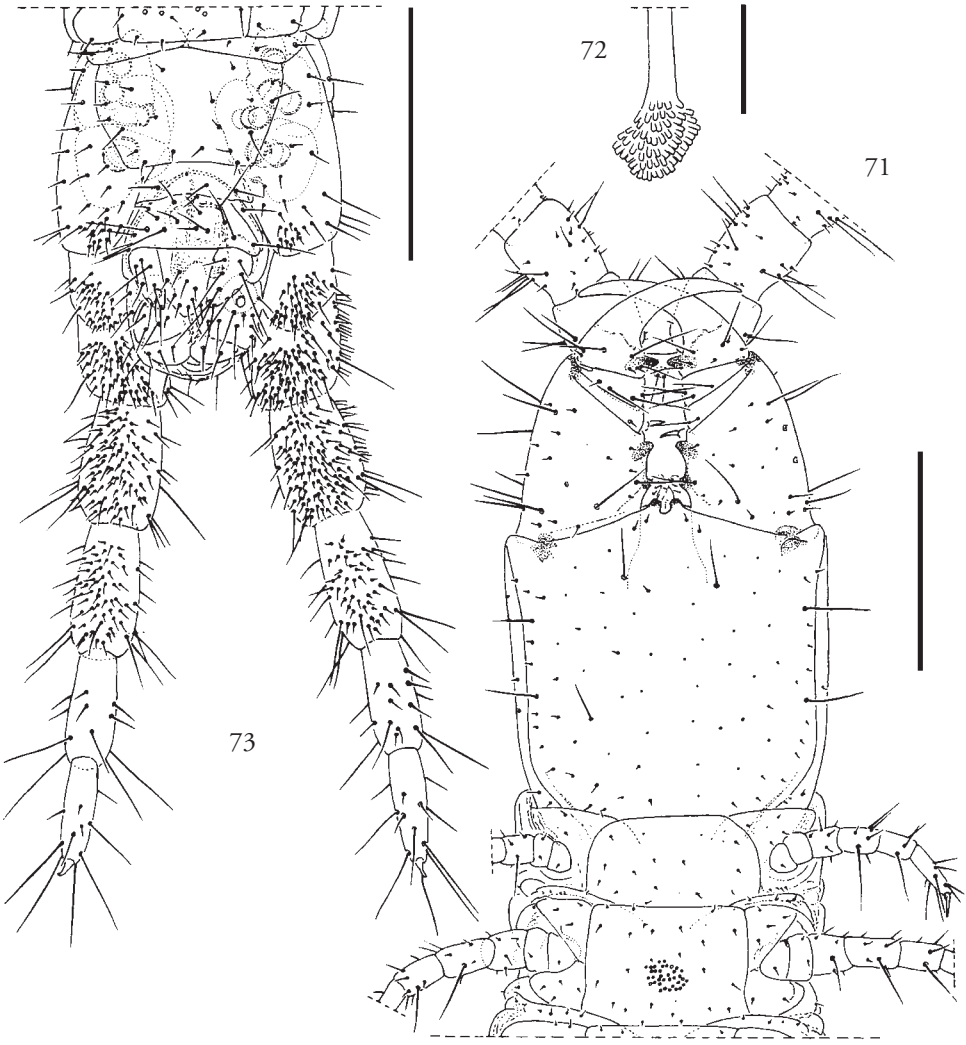
Table 2. Differential characters of *Plateurytion tenebrosus* (Meinert, 1886) and *Plateurytion heurtaultae* (Pereira, 2006).

	P. tenebrosus (Meinert, 1866)	*P. heurtaultae* (Pereira, 2006)
Pairs of legs	♂: 53, 55 or 57 ♀: 55, 57, 59, 61 or 63	♂: 45, 47, 49 or 51 ♀: 49, 51 or 53
Maximum body length	52 mm	30 mm
Maximum body width	1.70 mm	0.8 mm
Color	Ground color brownish yellow, cephalic shield and forcipular segment pale ferrugineus	Ground color yellowish, cephalic shield and forcipular segment pale ochreous
Number of type c sensilla on dorsal side of a.a. IX and XIII	Ca. 5-6	Ca. 1-3
Maximum length of cephalic plate (mm)	1.50 mm	1.0 mm
Aspect and relative size of clypeal area	As in Figures 7, 8	As in Figure 67, 68
Sclerotized pore rim of coxosternum of second maxillae	Notably elongated with posterior portion (in respect to the metameric pore) longer than the anterior portion (Figures Figures 12-14)	Slightly elongated with anterior and posterior portions subequal in size (Figures 68-70)
Maximum width of forcipular coxosternum	1.40 mm	0.9 mm
Ventral aspect of forcipular segment	As in Figure 17	As in Figure 71
Shape of calyx of poison gland	As in Figure 21	As in Figure 72
Coxal organs	Each coxopleuron with a maximum of ca. 25 organs; all distinct, opening separately (Figures 38, 57, 58), or (principally in the largest specimens), some organs opening separately and the remaining arranged in ca. one to six irregular groups, each formed by the fusion of 2-4 organs sharing a common pore (Figures 37, 38, 40, 41, 44-66).	Each coxopleuron with a maximum of ca. 8 organs, all distinct opening separately (Figures 73, 75, 76)
Chaetotaxy and shape of male gonopods	With ca.18-19 setae (Figures 41, 42)	With ca. 9 setae (Figures 73, 74)

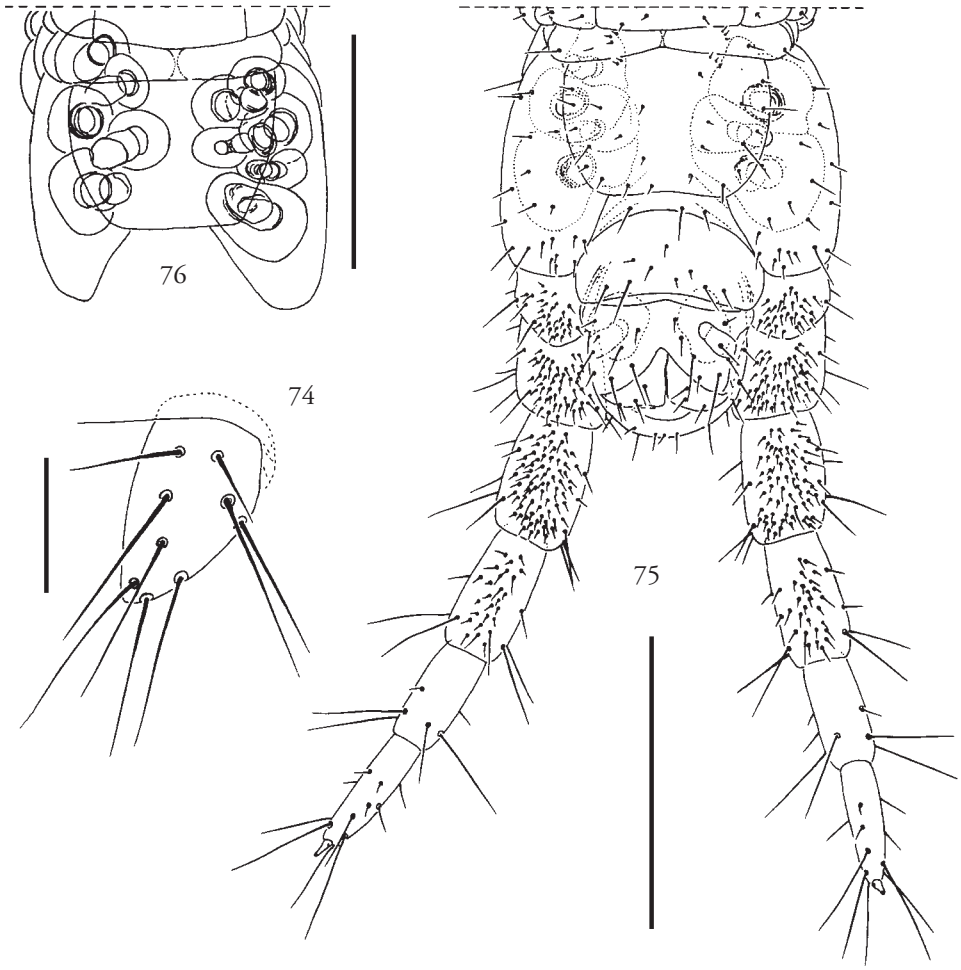
Known range: ARGENTINA: Buenos Aires province: Ensenada: Punta Lara; Berazategui: Parque Pereyra Iraola; La Plata: M. B. Gonnet. Córdoba province: Punilla: La Cumbre. Santa Fé province: Las Colonias: Esperanza. URUGUAY: Lavalleja department: 9 Kms S of Minas; Km 115 of road nº 8.



Figures 67-70. *Plateurytion heurtaultae* (Pereira, 2006) (male holotype; Argentina: Buenos Aires province: Ensenada). 67: clypeal area; 68: head with base of antennae and first and second maxillae, ventral ("a", sclerotized rim); 69: detail of sclerotized rim of coxosternum of right second maxilla, ventral; 70: detail of sclerotized rim of coxosternum of left second maxilla, ventral. (From Pereira, 2006). Scale bars: 0.05 mm (67, 69, 70); 0.3 mm (68).



Figures 71-73. *Plateurytion heurtaultae* (Pereira, 2006) (male holotype; Argentina: Buenos Aires province: Ensenada). 71: anterior region of the body showing forcipular segment, base of antennae and first two leg-bearing segments, ventral; 72: detail of calyx of right poison gland, ventral; 73: last leg-bearing segment and terminal segments, ventral. (From Pereira, 2006). Scale bars: 0.4 mm (71); 0.02 mm (72); 0.3 mm (73).



Figures 74-76. (74) *Plateurytion heurtaultae* (Pereira, 2006) (male holotype; Argentina: Buenos Aires province: Ensenada): left gonopod, ventral. (75) *Plateurytion heurtaultae* (Pereira, 2006) (female paratype "A"; Argentina: Buenos Aires province: Ensenada): last leg-bearing segment and terminal segments, ventral. (76) *Plateurytion heurtaultae* (Pereira, 2006) (female paratype "J"; Argentina: Buenos Aires province: Ensenada): coxal organs, ventral. (From Pereira, 2006). Scale bars: 0.05 mm (74); 0.3 mm (75); 0.4 mm (76).

Plateurytion mauryi n. sp.

Figs 77-121.

Diagnosis: A *Plateurytion* species with coxal organs arranged in two clusters in each coxopleuron of the last leg-bearing segment, as in only two other Neotropical species of this genus, *P. lethifer* (Crabill, 1968) and *P. yungarum* (Pereira, 2005), from which it is distinguished by the following unique traits (cf. Table 3): female with 63 pairs of legs; middle part of lateral margins of the head capsule converging posteriad (Fig. 80); sternum of last leg-bearing segment of the female with width/length ratio *ca*. 1.36: 1, posterior margin of sternum entirely straight to very slightly concave in the middle, and lateral margins slightly convex in anterior portion and slightly concave in distal

Table 3. Differential characters of *Plateurytion mauryi* n. sp., *Plateurytion lethifer* (Crabill, 1968) and *Plateurytion yungarum* (Pereira, 2005). (The characters of *P. lethifer* have been taken from Crabill, 1968).

	P. mauryi	*P. lethifer*	*P. yungarum*
Pairs of legs	♀: 63 ♂: ?	♀: 59 ♂: ?	♀: 53 ♂: 49
Body length	30 mm (♀)	35 mm (♀)	24 mm (♀)
Lateral margins of cephalic shield converging posteriad	Yes (Figure 80)	?	No (Figure 123)
Labrum	As in Figure 83	"Sidepieces very narrowly separated by triangular midpiece"	As in Figure 124
Lappets of coxosternum of first maxillae	Present (shape as in Figures 86, 87)	"Coxosternal lappets absent"	Present (shape as in Figure 125)
Forcipulae	Flexed, reach the level of anterior margin of head or slightly project beyond (Figure 80)	"Flexed, projecting well beyond head margin"	Flexed, reach the level of anterior margin of head or slightly project beyond
Aspect of teeth on medial edge of forcipular trochanteropraefemur	As in Figures 92-94	"Article I with two pigmented denticles, the distal larger than the proximal"	As in Figure 126
Chaetotaxy of walking legs	As in Figures 97-102	"articles 3, 4, 5 and 6 each ventrally with one specially long seta"	As in Figures 127-130
Shape, color and relative size of parungues of walking legs	Anteriors robust, similar in color to the claws, their length in legs I to ca. XL equivalent to about three quarters the length of the claws, in the remaining legs about half of the length of the claws; posteriors minute nearly suppressed (Figures 103-109).	"Parunguis: anteriors nearly as long as claws; posteriors minute, nearly suppressed"	Anteriors thin and pale in color, their length in legs I to ca.VI equivalent to ca. half of the length of the claws, in the remaining legs equivalent to ca. one third the length of the claws; posteriors minute nearly suppressed (Figures 131, 132).

Shape of single pore fields of anterior region of the body	All subcircular (Figures 110-112)	"Transversally slightly elliptical"	On sterna II to ca. X subcircular (Figure 133), on the remaining anterior sterna, subelliptical (Figure 134)
Ratio width/length of sternum of the last leg-bearing segment of the female	1.36: 1	1.75: 1	1.50: 1
Shape of posterior margin of sternum of the last leg-bearing segment of the female	Straight to very slightly concave on the middle (Figure 118).	Entirely strongly convex (Figure 122).	Straight on the middle and convex laterally (Figure 136).
Shape of lateral margins of sternum of the last leg-bearing segment of the female	Slightly convex on proximal half, slightly concave on distal half (Figures 118-120).	Entirely convex (Figure 122)	Entirely convex (Figure 136)
Number of coxal organs on anterior and posterior clusters	Anteriors with ca. 8-9 organs and posteriors with ca. 15-17 organs (Figures 119, 120)	As in Figure 122	Anteriors with ca. 4-5 organs and posteriors with ca. 4-7 organs (Figures 137, 138)

half (Fig. 118); anterior clusters of coxal organs with *ca*. 8-9 organs and posterior clusters with *ca*. 15-17 organs (Figs 119, 120).

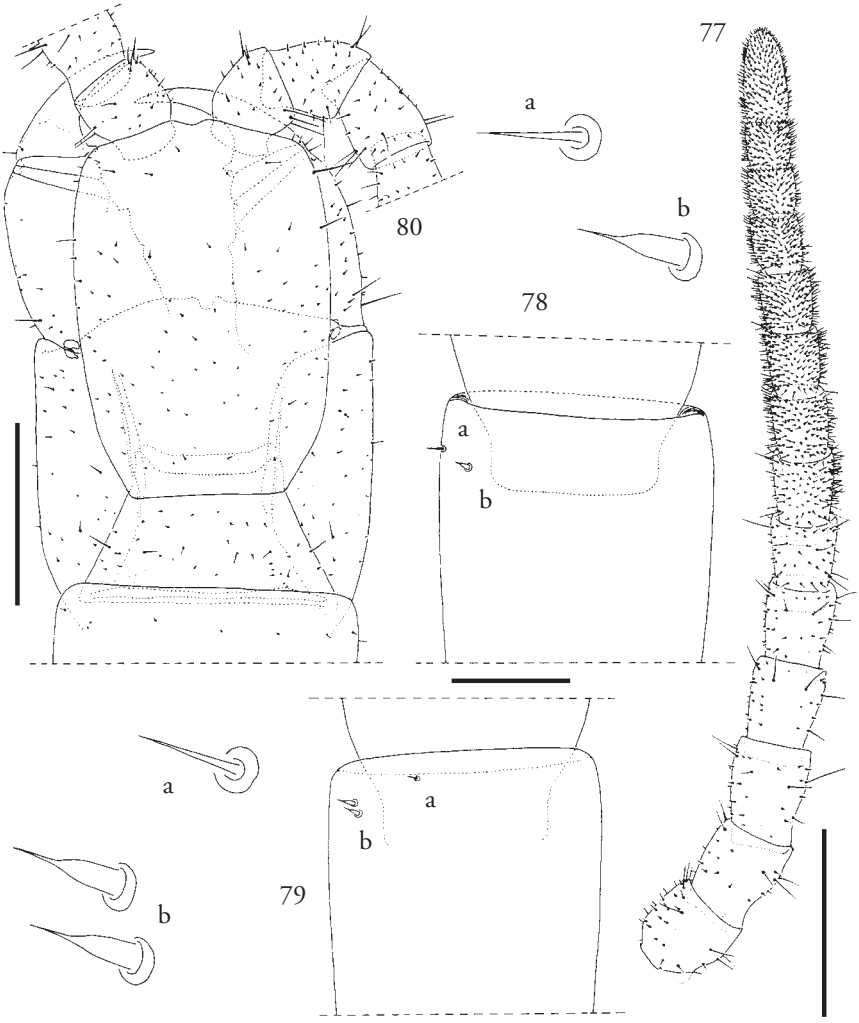
Remark: Morphological characters in Table 3 differentiate *P. mauryi* n. sp. from *P. lethifer* and *P. yungarum*.

Type material examined: Holotype: Female, 63 pairs of legs, body length 30 mm, from Argentina: Mendoza province: Las Heras department: Puente del Inca, *ca*. 2.933 m a.s.l. (32º49´ S, 69º55´W), E. A. Maury leg., 21 January 1984. Mandibles and first maxillae on a permanent slide, rest of the body in alcohol. Depository of type: MLP.

Description (Female): Sixty-three pairs of legs, body length 30 mm, maximum body width 0.73 mm, length of cephalic shield 0.79 mm, width of forcipular coxosternum 0.71 mm. Ground color (of preserved specimen in alcohol) yellowish, cephalic shield and forcipular segment darker (pale ochreous).

Antennae relatively short *ca*. 2.5 times as long as the cephalic plate, distally attenuate. First article nearly as long as wide, remaining articles longer than wide. Setae on a.a. I to V-VI of various length, few in number, those of remaining articles progressively shorter and more numerous towards the tip of the appendage (Fig. 77). Terminal antennal article with *ca*. 17 claviform sensilla on the external border and *ca*. 3 on the internal border. Distal end of this a.a. with *ca*. 5 very small sensilla, apparently not split apically. Ventral and dorsal surface of a.a. II, V, IX (Figs 78, 79) and XIII with very small specialized sensilla. On the ventral side these sensilla are restricted to an internal latero-apical area and occur in two different types: a and b. Type a sensilla are very thin and not divided apically, type b sensilla are thicker and very similar to those on the apex of the terminal a.a. (a, b: Fig. 78). Specialized sensilla on the dorsal side are restricted to an external latero-apical area and are represented by sensilla similar to type a and b of the ventral side (a, b: Fig. 79). Distribution of type a and b sensilla as in Table 4.

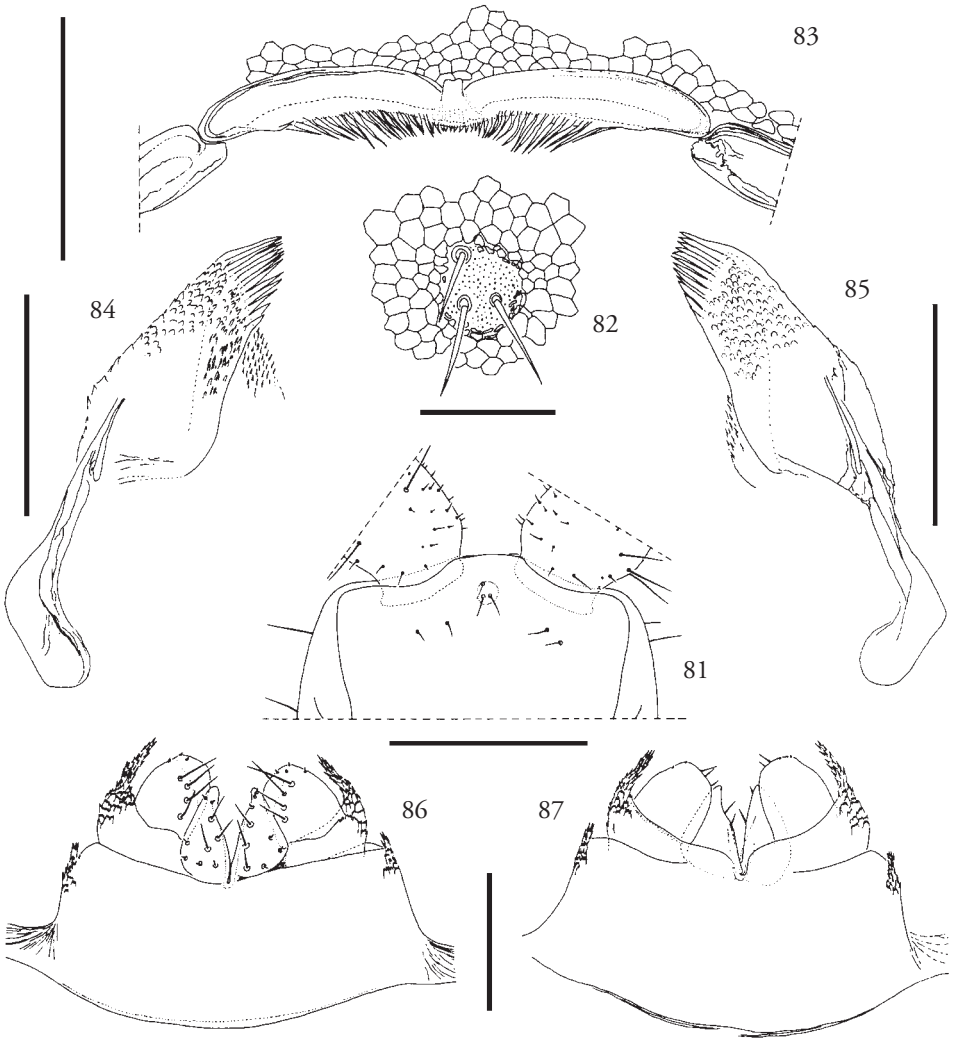
Cephalic plate distinctly longer than wide (ratio 1.50: 1) with sides curved and lateral margins convergent towards the proximal region. Shape and chaetotaxy as in Figure 80. Clypeus with three large setae located on the clypeal area and 2+2 setae on the middle part, the remaining clypeal surface without setae (Fig. 81). Surface of the clypeal area punctuate or granulate, not areolate (Fig. 82). Labrum: mid-piece well developed and unpigmented, with 9 short hyaline teeth. Side-pieces with 19+15 hyaline filaments (Fig. 83). Mandibles with shape as in Figs 84, 85, pectinate lamella with *ca*. 13 hyaline teeth. First maxillae with small lappets on the coxosternum; telopodites



Figures 77-80. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 77: left antenna, ventral; 78: left a.a. IX, ventral (a, b: a, b type sensilla); 79: left a.a. IX, dorsal (a, b: a, b type sensilla); 80: dorsal view of anterior region of the body, showing cephalic shield, base of antennae, forcipular segment and tergum of first leg-bearing segment. Scale bars: 0.4 mm (77, 80); 0.05 mm (78, 79).

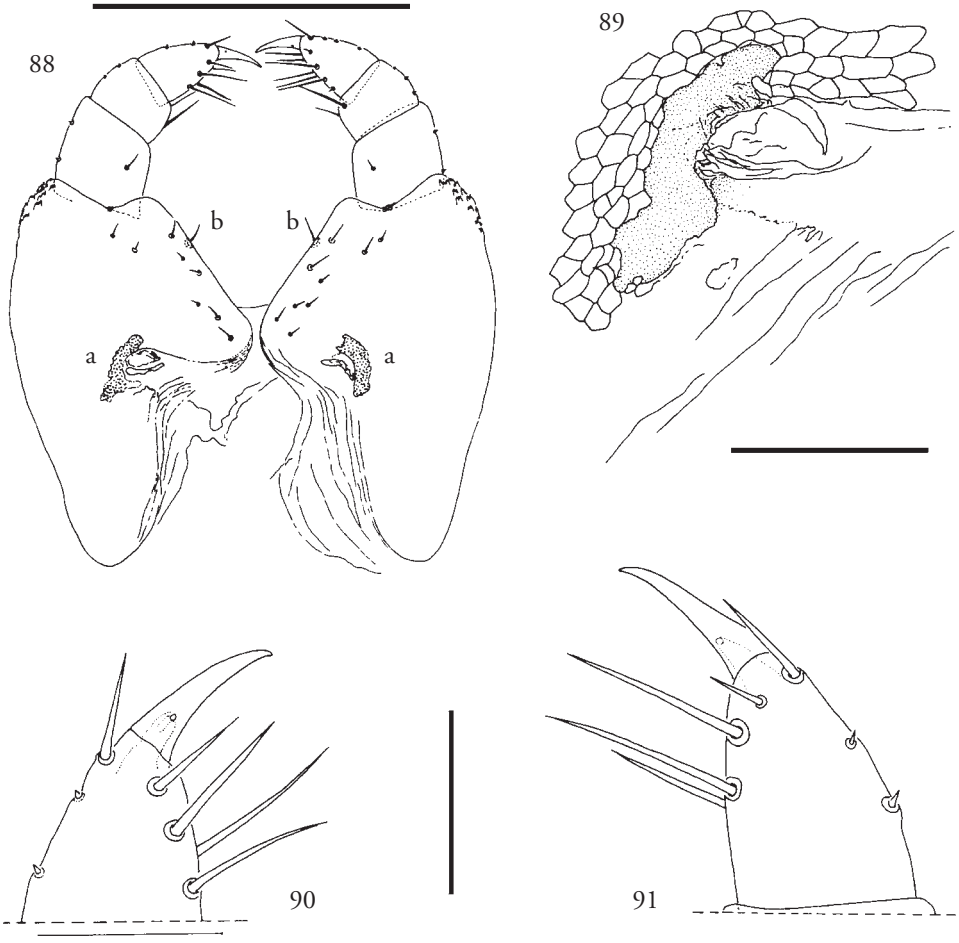
Table 4. Number of type a and b sensilla on antennal articles II, V, IX and XIII in the female holotype of *Plateurytion mauryi* n. sp. from Argentina: Mendoza province: Las Heras department: Puente del Inca.

	Ventral		Dorsal		Figures
	a	b	a	b	
II	-	1	1	1	
V	1	1	1	1	
IX	1	1	1	2	78, 79
XIII	1	1	1	1	



Figures 81-87. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 81: clypeus and base of antennae; 82: clypeal area; 83: labrum; 84: left mandible, dorsal; 85: right mandible, dorsal; 86: first maxillae, ventral; 87: first maxillae, dorsal. Scale bars: 0.3 mm (81); 0.05 mm (82); 0.1 mm (83-87).

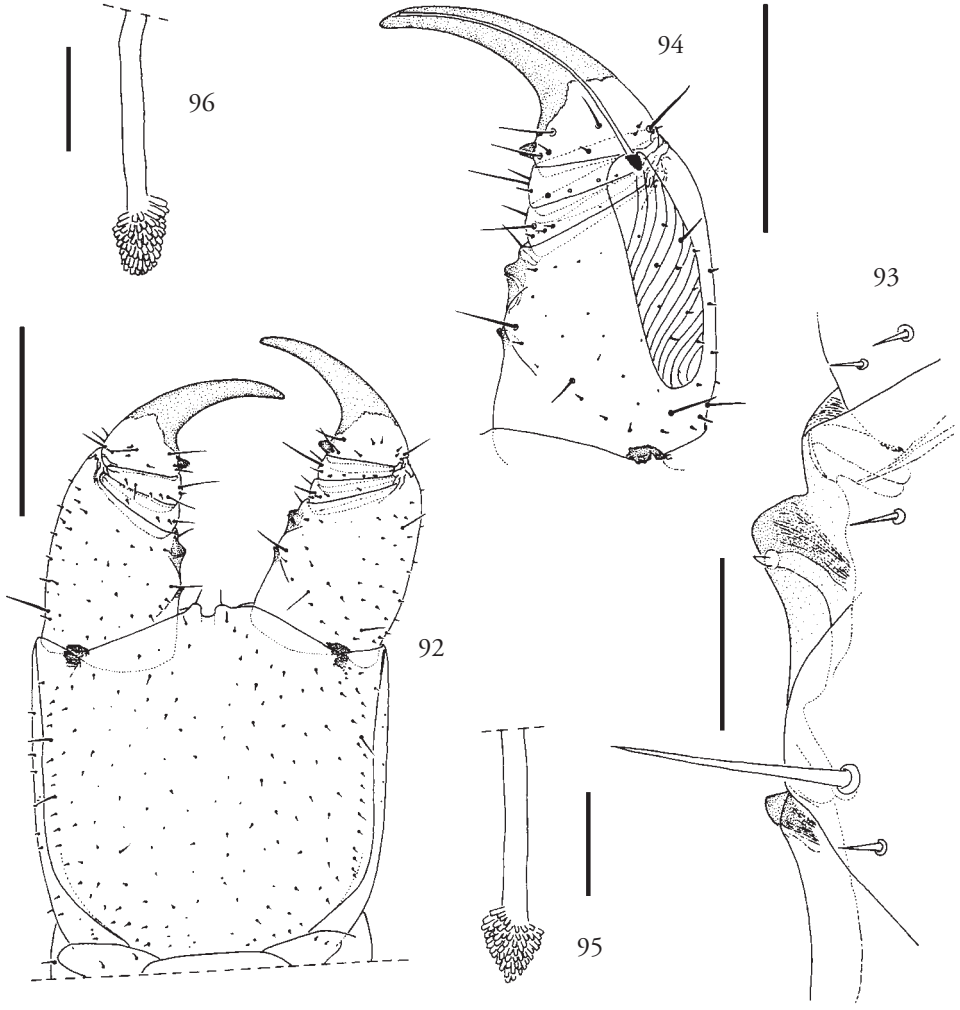
with developed lappets almost as long as the telopodite (Figs 86, 87). Coxosternum without setae; median projections of coxosternum subtriangular, well-developed and provided with 3+3 large setae and 6+6 small sensilla. Article II of telopodite with 4+4 large ventral setae and 3+4 ventro-apical small sensilla (Fig. 86), dorsal surface apparently without sensilla (Fig. 87). Second maxillae: coxites with 8+9 ventral setae (Fig. 88) and 1+1 dorsal setae (b: Fig. 88), medially joined through a narrow, hyaline and non-areolate membranous isthmus only. Metameric pore surrounded by a sclerotized



Figures 88-91. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 88: second maxillae, dorsal ("a", sclerotized rim; "b", dorsal seta of coxosternum); 89: sclerotized rim of coxosternum of right second maxilla, ventral; 90: apical article and claw of telopodite of right second maxilla, ventral; 91: apical article and claw of telopodite of left second maxilla, ventral. Scale bars: 0.3 mm (88); 0.05 mm (89-91).

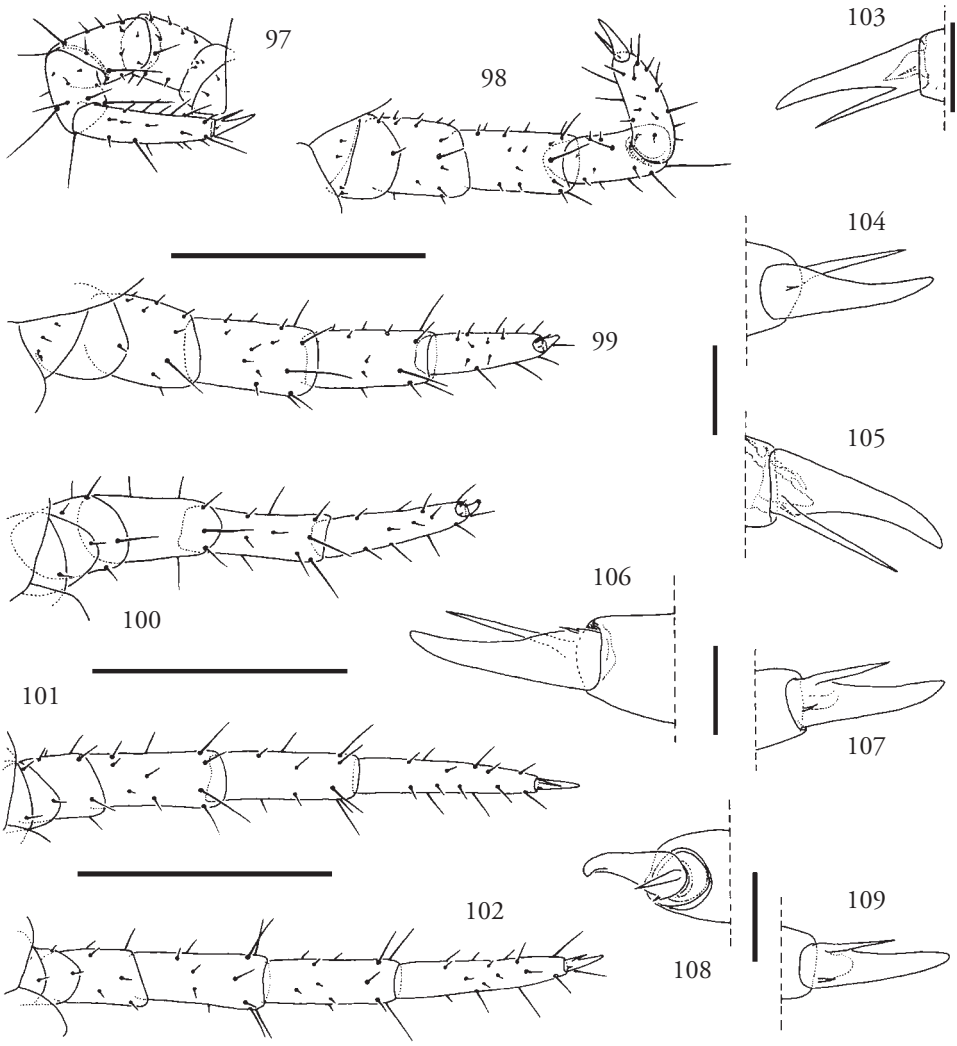
rim (a: Fig. 88; Fig. 89). Apical claw of telopodite well-developed, slightly curved internally at the tip (Figs 88, 90, 91). Chaetotaxy of coxosternum and telopodites as in Figs 88, 90, 91.

Forcipular segment: when flexed, the telopodites remain at the level of the anterior margin of the head or project slightly beyond (Fig. 80). Forcipular tergum trapeziform, with anterior and posterior margins respectively covered by the cephalic plate and the tergum of the first leg-bearing segment; chaetotaxy represented by an irregular



Figures 92-96. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 92: forcipular segment, ventral; 93: detail of teeth on medial edge of left forcipular telopodite, ventral; 94: detail of poison gland in left forcipular telopodite, ventral; 95: detail of calyx of left poison gland, ventral; 96: detail of calyx of right poison gland, ventral. Scale bars: 0.4 mm (92); 0.05 mm (93); 0.3 mm (94); 0.03 mm (95, 96).

transverse row of *ca*. 7 setae on the middle, and numerous smaller setae dispersed on the remaining surface (Fig. 80). Coxosternum without chitinous lines, middle part of anterior border with two denticles of the same color as the coxosternal surface (Fig. 92). Telopodites: medial edge of trochanteropraefemur with two teeth, both deeply



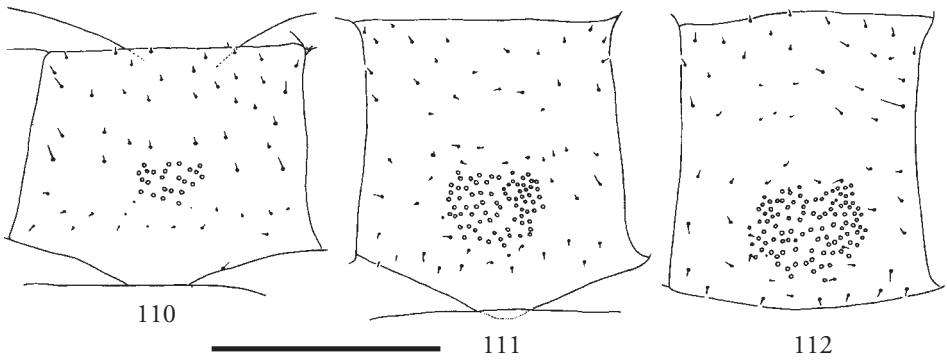
Figures 97-109. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 97: right leg I, ventro-anterior view; 98: left leg II, ventral; 99: left leg III, ventral; 100: left leg XXX, ventral; 101: left leg LVIII, ventral; 102: left leg LXII, ventral; 103: claw of right leg I, anterior view; 104: claw of left leg II, posterior view; 105: claw of left leg XIV, antero-dorsal view; 106: claw of right leg XV, postero-dorsal view; 107: claw of left leg XLIII, ventro-posterior view; 108: claw of right leg LIX, antero-ventral view; 109; claw of left leg LXII, ventral. Scale bars: 0.3 mm (97-102); 0.03 mm (103-109).

pigmented, the proximal one much smaller than the distal (Figs 92, 93). Femur and tibia without denticles. Tarsungulum basally with a well-developed and deeply pigmented subtriangular tooth (Figs 92-94); dorsal and ventral edges of the ungular blade not serrulate (Figs 92, 94). Shape and relative size of poison gland as in Fig. 94; calyx of poison gland with shape as in Figs 94-96. Chaetotaxy of tergum, coxosternum and telopodites as in Figs 80, 92, 94.

Walking legs: first pair (Fig. 97) shorter than the second (Fig. 98) in the proportion *ca*. 0.80: 1. Chaetotaxy (Figs 97-102) similar throughout the whole body length. Each claw with an anterior and a posterior parunguis; the anteriors robust, similar in color to the claw, with length in legs I to *ca*. XL equivalent to about three quarters the length of the claws, in the remaining legs about half of the length of the claws; posterior parunguis minute and pale in color. Aspect and relative size of parungues as in Figs 103-109.

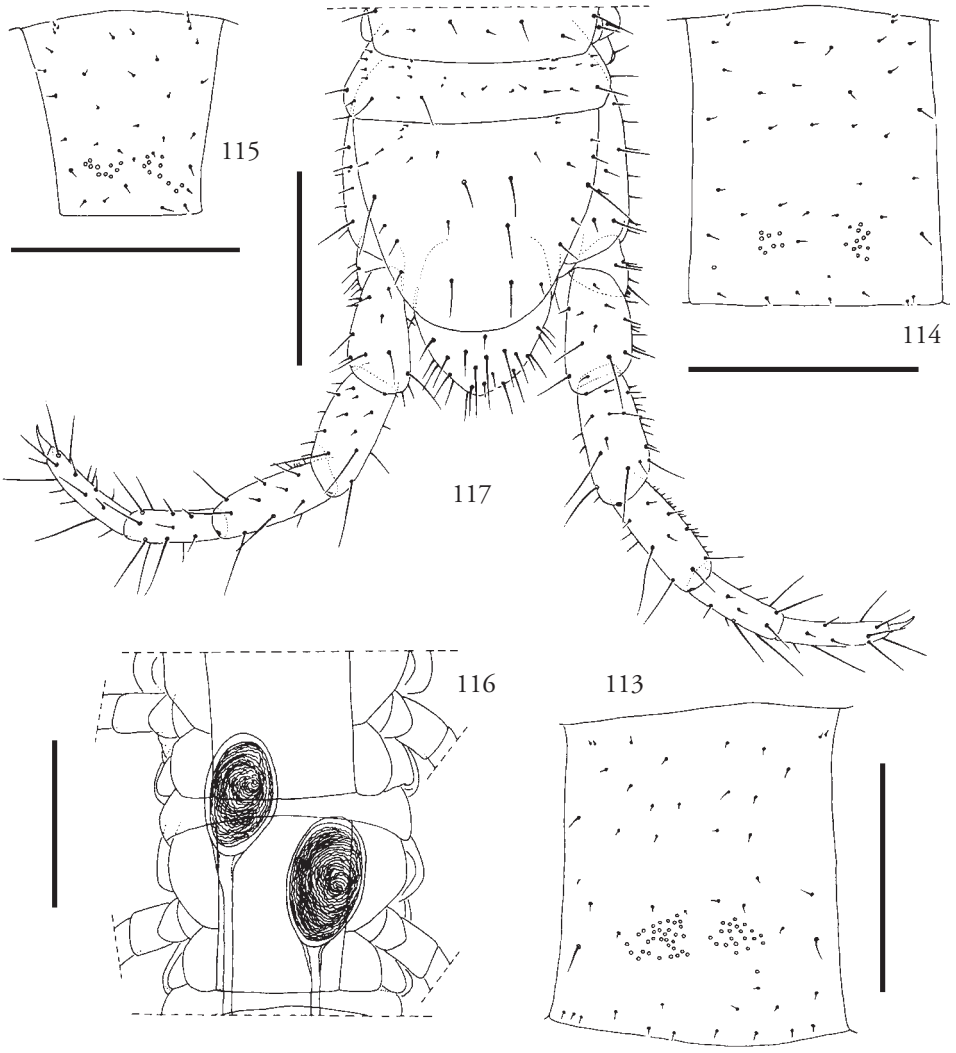
Sterna: pore fields and a median shallow longitudinal sulcus present from the second to penultimate sternum. Fields undivided on sterna II-XVIII, divided in two subsymmetrical areas on the remaining ones (XIX-LXII). Form of fields changing along the trunk as in Figs 110-115. Number of pores on selected sterna: sternum II (24); VI (77); XV (101); XIX (32+21); LVII (8+12); LXII (10+10).

Last leg-bearing segment: without pleurites at the sides of the praetergum. Praesternum apparently not divided in the sagittal plane; shape and chaetotaxy of tergum as in Fig. 117; sternum trapezoidal with shape and chaetotaxy as in Fig. 118. Coxopleuron slightly protruding at the distal internal ventral area, which is covered by numerous small setae (Fig. 118), remaining coxopleural surface with less numerous and larger setae (Figs 117, 118). Coxal organs grouped in 2+2 clusters opening on the membrane between coxopleuron and sternum, covered by the latter (Figs 118-120). Anterior clusters with *ca*. 8-9 organs and pit not easily discernible (Figs 119, 120); posterior clusters with *ca*. 15-17 organs, opening through a very small and shallow pit (Figs 119, 120). Last legs with seven podomeres, form and chaetotaxy as in Figs 117, 118. Praetarsus unguiform, similar in size to those of the preceding legs and basally provided with a single internal parunguis (Fig. 121).



Figures 110-112. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 110: sternum II; 111: sternum VI; 112: sternum XV. Scale bar: 0.3 mm.

Terminal segments: intermediate tergum with posterior margin strongly convex (Fig. 117), intermediate sternum and first genital sternum with posterior margin concave (Fig. 118). Gonopods poorly developed, uniarticulate, contiguous in the sagittal plane (Fig. 118).



Figures 113-117. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 113: sternum XIX; 114: sternum LVII; 115: sternum LXII; 116: detail of spermathecae full of spermatozoa, at level of leg-bearing segments LX-LXI (setae and ventral pores suppressed); 117: last leg-bearing segment and terminal segments, dorsal. Scale bars: 0.3 mm.

Anal organs absent (Fig. 118).

Remark: The adult condition of this specimen is indicated by spermatozoa in the spermathecae, which are located at the level of leg-bearing segments LX-LXI (Fig. 116).

Male: Unknown.

Etymology: The species is named in the memory of our late colleague Emilio Antonio Maury (1940-1998), the collector of the type specimen described above.

Ecology: P. mauryi n. sp. has been found in an Andean dry area with very sparse vegetation at about 2933 m a.s.l., in the Altoandina biogeographic province, while *P. lethifer* and *P. yungarum* (its closest Neotropical relatives) have been collected in the Yungas biogeographic province, the first at *ca*. 2880 m a.s.l. and the second at *ca*. 500-900 m a.s.l. respectively.

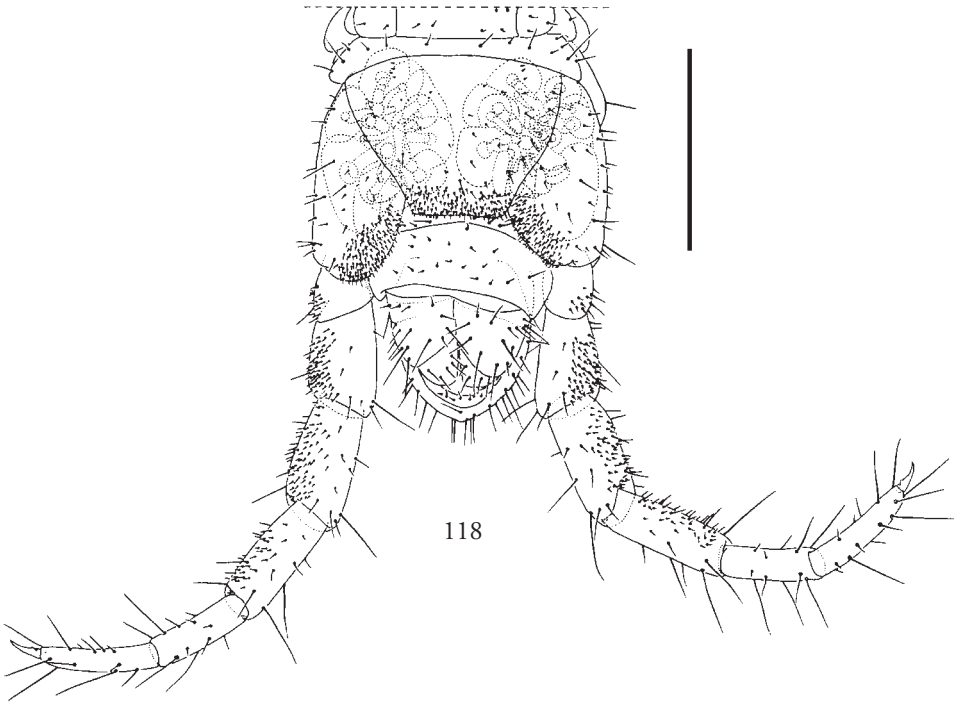


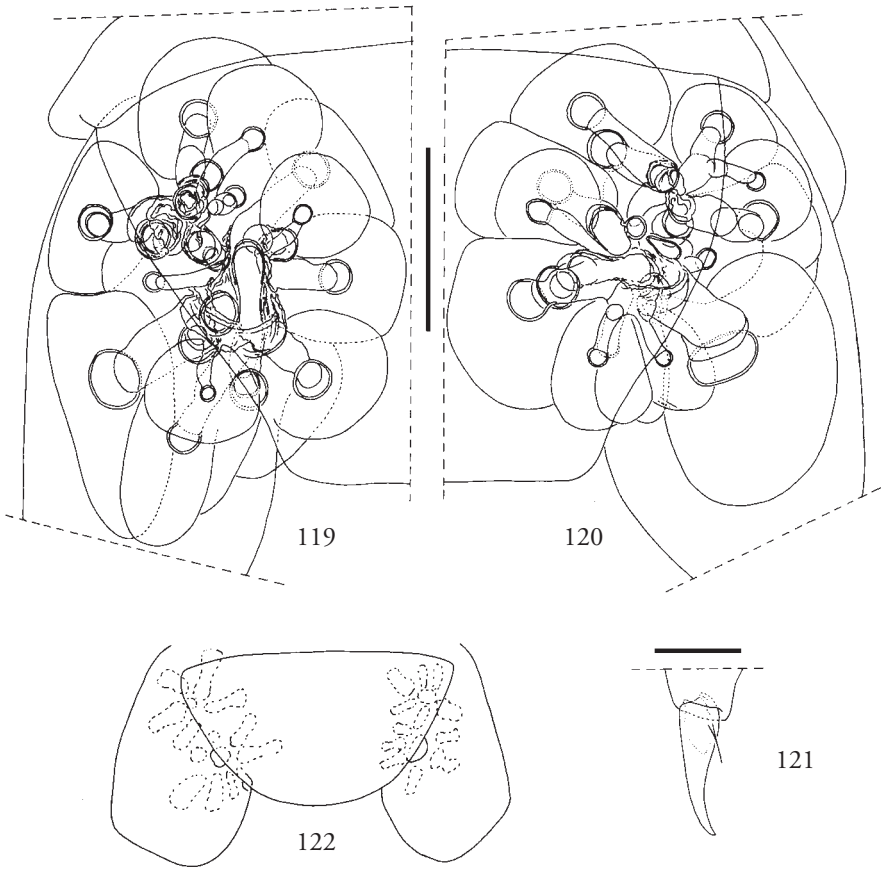
Figure 118. *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca): last leg-bearing segment and terminal segments, ventral. Scale bar 0.3 mm.

Plateurytion lethifer (Crabill, 1968)

Fig. 122.

Eurytion lethifer Crabill, 1968 – Psyche 75 (3): 229.
Eurytion lethifer: Foddai, Pereira & Minelli, 2000 – Amazoniana 16: 74.
Eurytion lethifer: Pereira, 2005 – Zootaxa 794: 3, 12.
Eurytion lethifer: Pereira, 2006 – Stud. Neotr. Fauna Env. 41 (2): 167.
Plateurytion lethifer: Bonato, Pereira & Minelli, 2007 – Zootaxa 1485: 6.

Diagnosis: The species differs from *Plateurytion mauryi* n. sp. and *Plateurytion yungarum* (Pereira, 2005) (its closest Neotropical relatives) by the following unique traits (cf. Table 3): female with 59 pairs of legs; body length 35 mm; lappets of first maxillae



Figures 119-122. (119-121) *Plateurytion mauryi* n. sp. (female holotype; Argentina: Mendoza province: Las Heras department: Puente del Inca). 119: right coxal organs, ventral; 120: left coxal organs, ventral; 121: Claw of left terminal leg, ventro-internal view. (122) *Plateurytion lethifer* (Crabill, 1968) (female holotype; Peru: Cuzco: Urubamba): sternum and coxopleura of the last leg-bearing segment, ventral (from Crabill, 1968). Scale bars: 0.1 mm (119, 120); 0.03 mm (121); scale not available (122).

absent; sternum of last leg-bearing segment of the female with ratio width/length, *ca*. 1.75: 1, and with posterior margin entirely strongly convex (Fig. 122).

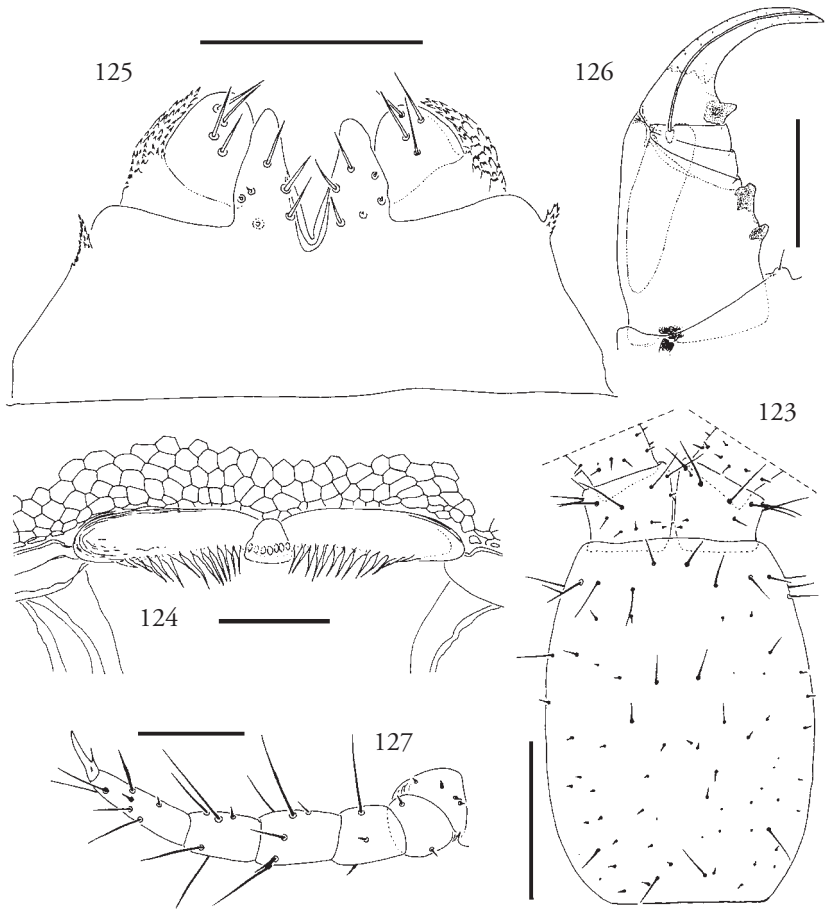
Type locality: Peru: Cuzco, Urubamba at 2880 m a.s.l.

Known range: Only known for the type locality.

***Plateurytion yungarum* (Pereira, 2005)**

Figs 123-138.

Eurytion yungarum: Pereira, 2005 – Zootaxa 794: 3.
Eurytion yungarum: Pereira, 2006 – Stud. Neotr. Fauna Env. 41 (2): 165.
Plateurytion yungarum: Bonato, Pereira & Minelli, 2007 – Zootaxa 1485: 6.



Figures 123-127. *Plateurytion yungarum* (Pereira, 2005) (male holotype, Argentina: Jujuy province: Ledesma department: *ca.* 50 km West of Fraile Pintado). 123: cephalic shield and base of antennae; 124: labrum; 125: first maxillae, ventral; 126: detail of poison gland in right forcipular telopodite, ventral; 127: right leg I, ventral. (From Pereira, 2005). Scale bars: 0.3 mm (123); 0.05 mm (124); 0.1 mm (125, 127); 0.2 mm (126).

Diagnosis: The species differs from *Plateurytion mauryi* n. sp. and *Plateurytion lethifer* (Crabill, 1968) (its closest Neotropical relatives) by the following unique traits (cf. Table 3): male with 49 pairs of legs and female with 53 pairs of legs; body length 24 mm; anterior parunguis of walking legs thin and pale, much clearer than the color of the claws, their length in legs I-VI equivalent to *ca*. half of the length of the claws, in the remaining legs *ca*. one third of the length the claws (Figs 131, 132); sternum of last leg-bearing segment of the female with ratio width/length *ca*. 1.50: 1, and with posterior margin straight on the middle and convex laterally (Fig. 136).

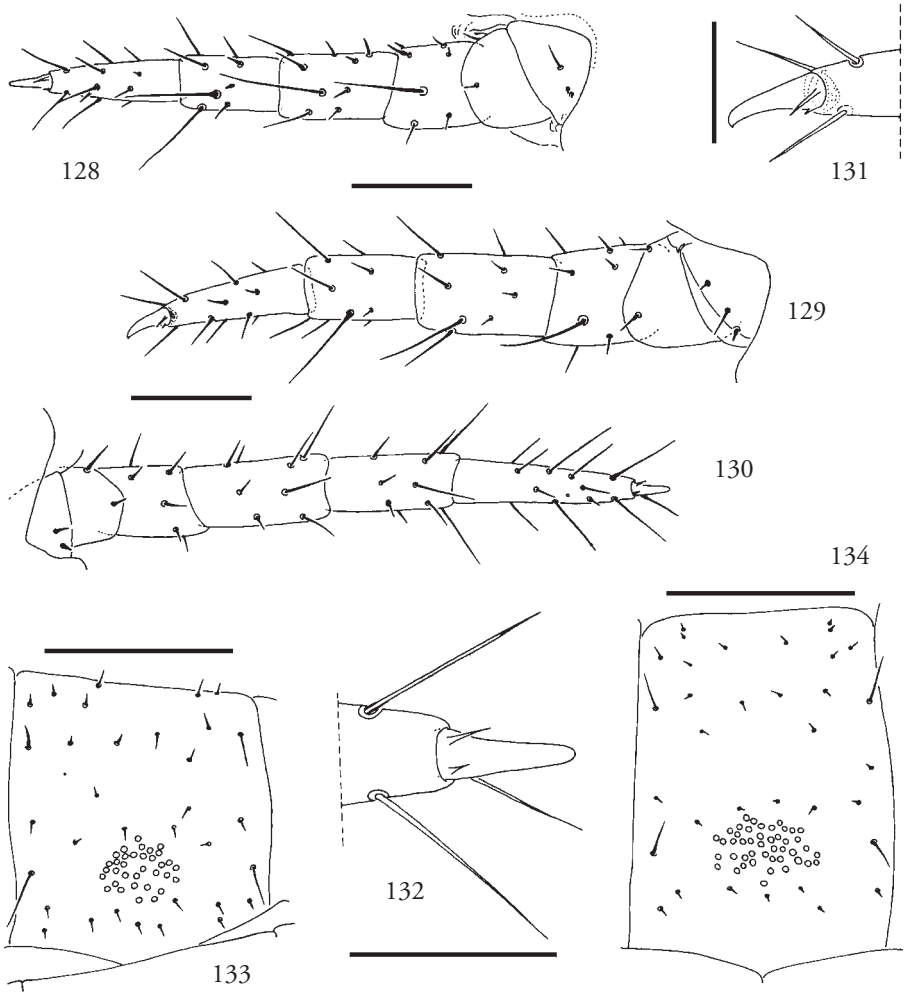
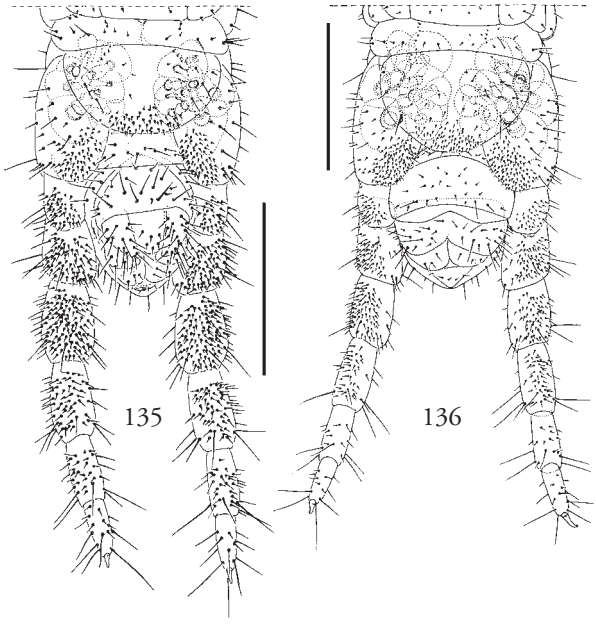
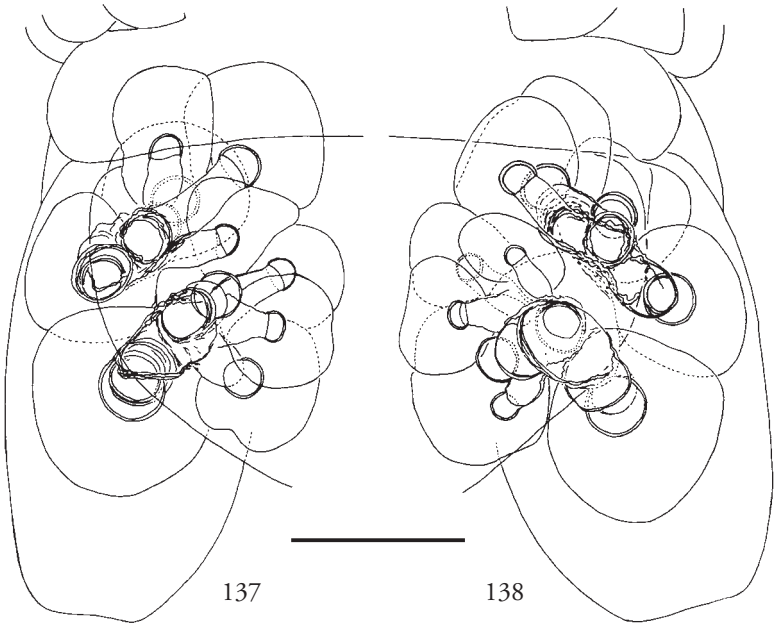


Figure 128-134. *Plateurytion yungarum* (Pereira, 2005) (male holotype, Argentina: Jujuy province: Ledesma department: *ca.* 50 km West of Fraile Pintado). 128: right leg II, ventral; 129: right leg XI, ventral; 130: left leg XLVIII, ventral; 131: claw of right leg XI, antero-ventral; 132: claw of left leg XLVIII, ventral; 133: sternum VI; 134: sternum XIII. (From Pereira, 2005). Scale bars: 0.1 mm (128-130); 0.05 mm (131, 132); 0.2 mm (133, 134).



Figures 135-136. (135) *Plateurytion yungarum* (Pereira, 2005) (male holotype, Argentina: Jujuy province: Ledesma department: *ca.* 50 km West of Fraile Pintado): last leg leg-bearing segment and terminal segments, ventral (from Pereira, 2005). (136) *Plateurytion yungarum* (Pereira, 2005) (female, Argentina: Jujuy province: Ledesma department: Calilegua National Park): last leg-bearing segment and terminal segments, ventral (from Pereira, 2006). Scale bars: 0.3 mm.



Figures 137-138. *Plateurytion yungarum* (Pereira, 2005) (female, Argentina: Jujuy province: Ledesma department: Calilegua National Park). 137: right coxal organs, ventral; 138: left coxal organs, ventral. (From Pereira, 2006). Scale bar: 0.1 mm.

Type locality: Argentina: Jujuy province: Ledesma department: *ca*. 50 km West of Fraile Pintado.

Known range: Argentina: Jujuy province: Ledesma department: *ca*. 50 km West of Fraile Pintado; Calilegua National Park.

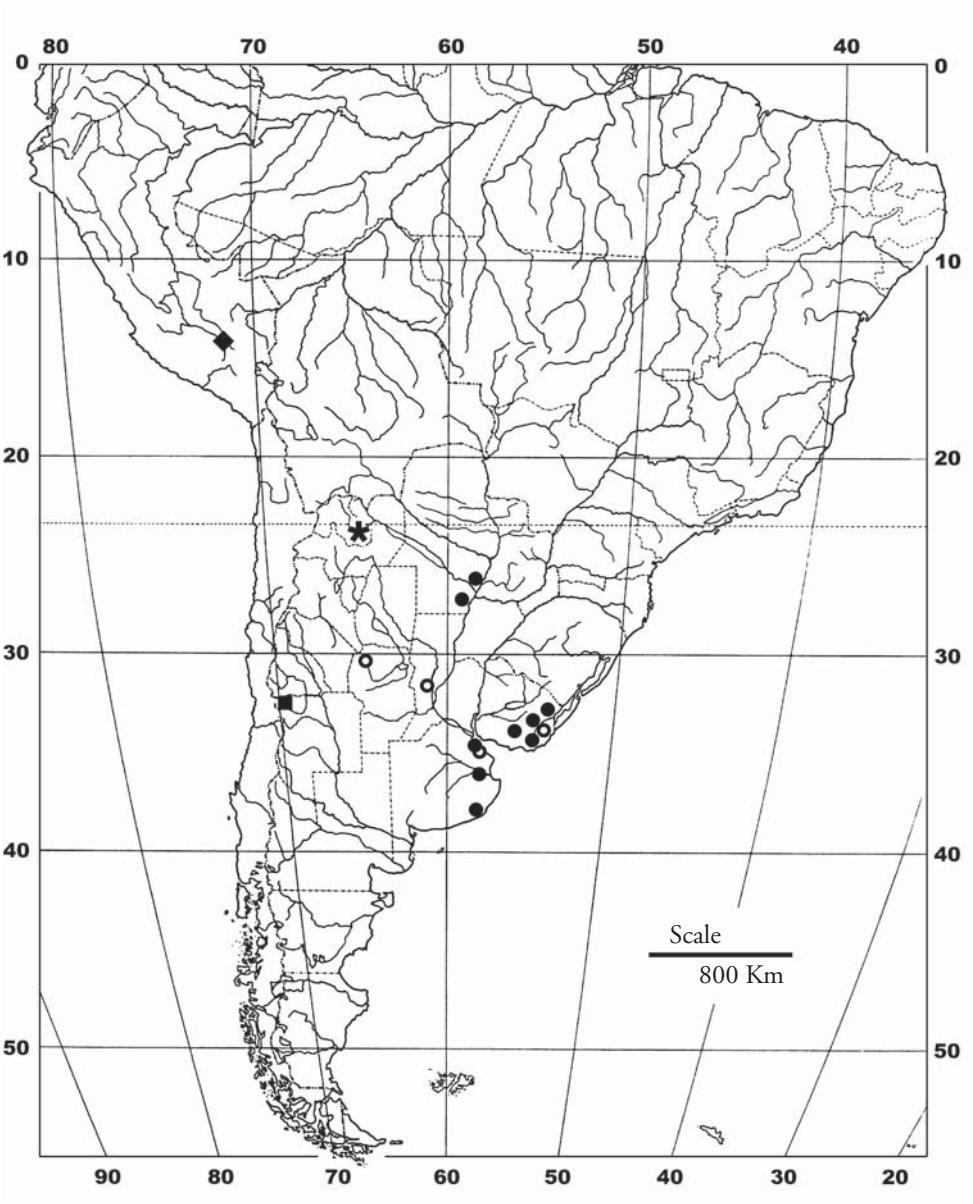


Figure 139. Geographical distribution of *Plateurytion heurtaultae* (Pereira, 2006) (white dots); *Plateurytion lethifer* (Crabill, 1968) (diamond); *Plateurytion mauryi* n. sp. (square); *Plateurytion tenebrosus* (Meinert, 1886) (black dots) and *Plateurytion yungarum* (Pereira, 2005) (star).

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